

ARTICLE

COST RESPONSIBILITY OR REGULATORY INDULGENCE FOR ELECTRICITY'S STRANDED COSTS?

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INTRODUCTION

The most nagging, immediate question about the rush to deregulate the electricity industry is: Who should pay for the resulting stranded costs?¹ This Article explores this question using the

1. See, e.g., WILLIAM BAUMOL & J. GREGORY SIDAK, TRANSMISSION PRICING AND STRANDED COSTS IN THE ELECTRIC POWER INDUSTRY 98 (1995) (calling stranded costs "at least in the short run, the most critical regulatory issue" in the industry). Perhaps the most important long-term questions are whether deregulated markets will function competitively, whether increased con-

stranded-cost treatment in the first two major restructurings: federal deregulation of wholesale electricity and California's retail restructuring. Stranded costs are the expenses of generating plants and other investments like power-supply contracts, whose output customers no longer want to buy. Customers prefer the cheaper power of new suppliers. Stranded costs result from investments that have turned out to be misguided in the market's impersonal judgment.² In electricity and other deregulated industries, like natural gas, stranded costs arise from investments that utilities made years ago while assuming that they could force their customers to buy the resulting power at any price.

Deregulation is the great late-century gamble in American economic organization. In two decades, we have dismantled many of the New Deal institutions created to cure market failure and abuse. The motivation for removing government controls is the belief that firms will save billions of dollars if they are forced to compete, and that regulation has proven too costly and inefficient.³ The stakes probably

centration will have anti-competitive effects, and whether government regulators have the will and resources to address these questions.

2. See Sheila S. Hollis & Mary Ann Ralls, *Stranded Costs: An Assessment of the Next Great Energy Battle*, Address at IBC's 3d Annual Industry Forum (Washington, D.C., June 23-25, 1997) (on file with author).

3. FERC has estimated the annual savings from *interstate* (wholesale) electricity deregulation at \$3.8 to \$5.4 billion. See Order No. 888, *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, 61 Fed. Reg. 21,540, 21,541 (1996) (codified at 18 C.F.R. pts. 35 and 385). California, the United States' largest consumer of electricity, has mandated savings of roughly \$5 billion over the multi-year phase-in of state deregulation. See *infra* note 58 and accompanying text. A recent NRRI report cited a projection that national savings might run between \$80 and \$100 billion a year. See KENNETH ROSE, *AN ECONOMIC AND LEGAL PERSPECTIVE ON ELECTRIC UTILITY TRANSITION COSTS* 2, 28-29 (1996). Although NRRI does not expressly endorse this number, which appears in a report prepared for the Enron Capital and Trade Resources group, a major entrant in electricity markets, it makes the fair point that "[e]ven if actual savings turn out to be one-half or one-quarter of this, it is still quite respectable." *Id.* at 2 & n.3.

The projections of savings are often pronounced with a prophet's certainty, based more often on faith than proof. As FERC Chairwoman Moler announced the blessings of the electricity designation orders, Nos. 888 and 889:

Today's action by the Commission will benefit the industry and consumers to the tune of billions of dollars every year. They will give us an electric industry ready to enter the 21st century. These rules will accelerate competition and bring lower prices and more choices to energy customers.

The future is here—and the future is competition. It is a global trend, and in North America, we are at the forefront in embracing it. There is no turning back.

FEDERAL ENERGY REGULATORY COMM'N, NEWS RELEASE: COMMISSION ORDERS SWEEPING CHANGES FOR ELECTRIC UTILITY INDUSTRY (Apr. 24, 1996). A study conducted for the year 1976 estimated the total public welfare loss of economic overregulation at \$66 billion. See MURRAY WEIDENBAUM & ROBERT DEFINA, *THE COST OF FEDERAL REGULATION OF ECONOMIC ACTIVITY* 2 (1978).

Economists have begun tallying the effects of deregulation. One effort listed two estimates of "predicted" savings in natural gas, \$3.4 billion or \$1.5 billion a year. It recited the

"[a]ssessed" benefits as "[s]ubstantial gains to consumers." Clifford Winston, *Economic Deregulation: Days of Reckoning for Microeconomists*, XXXI J. ECON. LITERATURE 1263, 1274 (1993). Another study that looked at the deregulation of five industries, including natural gas, concluded that "deregulation has generally been a successful story." KENNETH COSTELLO & ROBERT GRANIERE, *THE DEREGULATION EXPERIENCE: LESSONS FOR THE ELECTRIC POWER INDUSTRY 2* (1997). Firms have "reduced their costs, lowered their prices, introduced new services and re-configured old services to better accommodate consumer preferences, and deployed new technologies and practices." *Id.* Costello and Graniere did find that these improvements have had a skewed distribution. In natural gas, electric utilities have seen the biggest price drop, followed by industrial customers, while commercial rates barely fell and residential rates actually rose by almost five percent in the period 1984-1994. *See id.* at 14-15.

Robert Crandall and Jerry Ellig, two researchers at the Center for Market Processes, have made similar findings. *See* ROBERT CRANDALL & JERRY ELLIG, *ECONOMIC DEREGULATION AND CUSTOMER CHOICE: LESSONS FOR THE ELECTRIC INDUSTRY 3-5* (1997) (concluding that deregulation lowers prices and provides benefit to consumers). Crandall and Ellig also studied five deregulated industries, including natural gas, and found a dramatic price drop in each industry, with prices falling "4-15% in the first two years and by at least 25%, sometimes 50%, over ten years." *See id.* at 3. They attributed the greater benefit of industrial customers to their ability to buy "interruptible" rather than "firm" gas service. *See id.* at 11. The authors reported that gas revenues were \$38 billion less in 1995 than in 1984, even though consumption rose by 20%, as another sign of increased efficiency. *See id.* at 17. In addition, they cited competition's innovative benefits, such as the growth of market hubs and the proliferation of risk management devices. *See id.* at 15. Another benefit of increased competition Crandall and Ellig found is that transportation margins have been falling with deregulation, while distribution margins (in largely unaffected state jurisdictions) have not fallen, although they have fluctuated somewhat over the intervening years. *See id.* at 11-12. Finally, prices have begun to move together, a sign that the formerly balkanized gas markets have become joined in a nationwide market for buyers and sellers. *See id.* at 12. The authors concluded that "[t]he record show[ed] that deregulation has generally led to lower prices, expanded output, and improved choices of service quality." *Id.* at 6; *cf.* ADAM THIERER, *ENERGIZING AMERICA: A BLUEPRINT FOR DEREGULATING THE ELECTRICITY MARKET 5* (1997) (claiming equalization of "unjustifiable regional differences" as one benefit of deregulation).

Speculativeness surrounds every savings projection because models must include assumptions not only about how well competition will work, but also about how regulated companies would have acted had market structures stayed the same. *See* COSTELLO & GRANIERE, *supra*, at 4 (noting that measurement of the effect of such regulatory measures as price and entry controls, and, by extension, the effect of deregulation, is a "difficult task," with "*ex post* analysis" requiring comparison "between actual performance and predicted performance under the previous market structure and regulatory regime"); Winston, *supra*, at 1270-71 (arguing that regulation and deregulation have "never occurred simultaneously at the national level," so before after comparisons of deregulation must fail, and good tests require a "counterfactual approach" that includes "control not only for external economic factors, but for all characteristics of the industry's environment, including prices and service quality, that have changed because of deregulation") (citation omitted)). A number of possible sources of lower costs, including the newer technologies of combined-cycle natural gas plants, lower fuel costs, and the likelihood of fewer social programs, probably would lower costs for competitive or regulated firms. Deregulation will only generate *net* savings if the generating market is indeed competitive, and if competition does indeed provide the incentive for efficient risk-taking and planning at any given level of technology and for whatever social policies remain imposed on electric companies.

The counterfactual problem is acknowledged by all serious students of regulation and deregulation. *See* Robert Hahn & John Hird, *The Costs and Benefits of Regulation: Review and Synthesis*, 8 YALE J. REG. 233, 237 (1990) ("Perhaps the most difficult task in estimating the impact of a regulatory change is specifying what would have happened in the absence of that change."). Hahn and Hird identify two counterfactual biases in measurements of deregulation. One is overstating benefits by assuming the change will result in an efficient competitive structure. The other is understating benefits by ignoring the changes in technology that deregulation may produce. *See id.* at 237-38.

For those who believe strongly in the efficiency of the marketplace, there is little doubt that deregulation will bring a tremendous boost in economic activity and efficiency. There is an

are nowhere greater than in the electricity industry, where deregulation has been described aptly as "the most important economic initiative [to be] taken up by Congress for the rest of the decade."⁴ Electricity deregulation will be even more important at the state level. The changes may finally end what some call the country's "last regulated monopoly."⁵

In one industry, the savings and loan industry, the result of deregulation has been quick and disastrous.⁶ Initial reports concerning natural gas, the first energy deregulation, have been much more bullish,⁷ but it takes time for the effects of such deep structural change to be felt.⁸ Firms and customers need time to adjust their behavior, and

unmistakable aura of self-congratulation in many summations of the deregulation experience. See, e.g., THIERER, *supra*, at 1 (calling regulation "an experiment in America's electricity market that can be judged only as a failure"). As a society, we have cast our fate with these beliefs.

4. THIERER, *supra* note 3, at 9. Retail electric sales exceed three percent of U.S. GDP, and the industry's annual revenues are far larger than those of the other deregulated industries. See Matthew White, *Power Struggles: Explaining Deregulatory Reforms in Electricity Markets*, in BROOKINGS PAPERS ON ECONOMIC ACTIVITY (MICROECONOMICS) 201-02 (1996).

5. RONALD BINZ ET AL., NAVIGATING A COURSE TO COMPETITION: A CONSUMER PERSPECTIVE ON ELECTRIC RESTRUCTURING I (1997) [hereinafter CPI REPORT].

6. Although estimates of total savings and loan losses vary as much as estimates of total savings from electricity deregulation, no one has suggested that the losses will not be immense. As of 1990, the losses may have run well over \$300 billion. See *Resolving the Savings and Loan Crisis: Billions More and Additional Reforms Needed, Before the Senate Comm. on Banking, Housing, and Urban Affairs*, 101st Cong., at 1 (1990) (statement of Charles Bowsher, Comptroller General of the United States).

7. Consider, for instance, the contented remarks of Richard Pierce, one of the major intellectual proponents of early and thorough natural gas deregulation:

The FERC can take pride in an extraordinary accomplishment. In most respects, the beneficial effects of the transition have exceeded even initial optimistic expectations. The effects of the transition have included significant rationalization of the gas transportation and storage functions, in addition to the expected beneficial effects on the gas sales market. . . . Moreover, the participants in the post-transition market, including many who originally opposed the transition, have discovered that the post-transition market can produce good results for service providers as well as consumers.

Richard Pierce, *The State of the Transition to Competitive Markets in Natural Gas and Electricity*, 15 ENERGY L.J. 323, 323-24 (1994) (citations omitted).

8. One reason for this lag is that tendencies toward concentration may be concealed for a time. For instance, firms may take time to raise capital and devise a plan for market domination. It is only years after the consent decree split up AT&T that we are seeing mergers among the Baby Bells. For example, it took until 1996 before Bell Atlantic announced its merger with NYNEX, and Pacific Telesis merged with Southwestern Bell. See Jonathon Marshall, *Few May Benefit from Megamergers of Utilities*, S.F. CHRON., Nov. 11, 1996, at B3. One of the ripple effects of this concentration among formerly regulated companies may be increased combination among their unregulated competitors. Little more than six months after the two former regional Bell mergers were announced, British Telecom decided to acquire MCI, *see id.*, but its merger has fallen apart and been superseded by one with Worldcom as MCI's suitor. It will be hard to sort out the effects of deregulation until the new equilibrium of the power industry becomes clear.

Other commentators stress, however, that the transition into competition is also gradual. They maintain that it takes time for new firms to enter the market, new products to emerge, and other benefits of competition to mature. Strong believers in the market assume that innovation and benefits will only multiply with time. See COSTELLO & GRANIERE, *supra* note 3, at 65 (predicting that "current estimates of future benefits from less regulation of the electric power

potential entrants need time to decide whether to take advantage of the market. A critical factor in the success or failure of electricity restructuring will be who pays the several-hundred-billion-dollar bill for stranded costs.

The decision to deregulate electricity rests on the belief that regulated electric companies were not acting efficiently and, as a result, the costs of regulation were overwhelming its benefits. Deregulation embodies a judgment that many large utilities have managed their affairs imprudently. This imprudence is the reason that the lash of competition needs to be applied to these companies, and the inefficiencies created by today's utilities give reason to expect that deregulation will produce large public welfare gains. It is the depth of this collective imprudence that makes deregulation so urgent.

Stranded costs present a fundamental inconsistency in the first two major electricity deregulations. Both the Federal Energy Regulatory Commission ("FERC") and the California Public Utilities Commission ("CPUC") pointed to inefficiencies and discrimination by regulated utilities when they explained why they had to import competition into the industry. Yet when they decided who should pay for stranded costs—the costs caused by these inefficiencies—both agencies acted as if utilities had no blame for their own high costs. Both issued rules that will encourage full recovery of stranded costs. This failure to match the mechanics of stranded costs with deregulation's underlying rationale and purpose is the puzzle of early electricity deregulation.

One reason that stranded costs are so important is that they are a barometer of how truly policymakers believe in competition. The fate of these costs should decide whether the companies whose behavior necessitated deregulation will pay the price for their mistakes. Conversely, a deregulation that shifts those costs to customers will delay the switch to new generators. Cost recovery will bolster the market position of companies whose failures and shortcomings required deregulation.

Stranded costs' direct impact on public welfare should not be forgotten. Many in the industry claim that interstate and intrastate

industry are probably too low" because of the difficulty involved in understanding how a "competitive environment" will operate, which produces an underestimation of technological changes; markets will bring a drop in rent-seeking behavior and a rise in new services); CRANDALL & ELLIG, *supra* note 3, at 4 (arguing that corporate cultures change more slowly than pace of deregulation, so that competitive "changes and adjustments" (and continuing innovations) will continue even ten years after rule changes); *see also* Winston, *supra* note 3, at 1271 (stating that deregulation's "full effects remain to be seen" in context, suggesting that benefits will grow).

stranded costs will total two-hundred to three-hundred-billion dollars.⁹ The actual loss will vary with the timing and scope of state deregulations that remain in their infancy, but this penalty must fall somewhere, and it is an awful burden to land in the wrong place.

Because FERC's and California's stranded cost measures occurred in the earliest and most prominent electricity deregulations,¹⁰ it is all the more regrettable that both agencies treated the fate of electricity's stranded costs as if it was just a question of the prudence (or, as it is commonly termed in the electricity industry, "prudency") of individual assets. The relegation of stranded costs to largely decided issues of single-asset prudence ignores the fact that deregulation must be a judgment that companies facing large stranded costs have made a series of poor decisions.¹¹

This Article has six main sections. After a general discussion of the electricity industry in Part I, Part II discusses the fate stranded costs would have suffered in a market system. Electric companies based their investments on mistaken estimates of both supply and demand. If they faced competition, these companies would have to pay for these mistakes. Consumers would shift to other suppliers; utilities would be saddled with a high proportion of the costs of outmoded assets.

Part III looks at a second benchmark: the rules that FERC created to deal with its first real stranded cost problem, that posed by natural gas deregulation. Pipelines made mistakes very similar to those of

9. See *infra* notes 22-25 and accompanying text.

10. This Article is not a survey of state efforts. In general, there is some diversity in state approaches, but most states have yet to implement their retail restructuring plans. See ENERGY INFORMATION ADMINISTRATION (EIA), *THE CHANGING STRUCTURE OF THE ELECTRIC POWER INDUSTRY: AN UPDATE 67* (1996) [hereinafter EIA UPDATE] (reporting that 24 of 45 "jurisdictions" engaged in restructuring have formal proceedings "in progress," 18 are conducting information studies, and 3 had made "final" decisions as of late 1996). For details on early state efforts at restructuring electric industries, see CPI REPORT, *supra* note 5, at 65-69; *As Congress Sets Sights on Electric Restructuring, States Jump Ahead*, INSIDE F.E.R.C., Jan. 13, 1997, at 1, 11-15 (detailing state experience with electric restructuring); Hollis & Ralls, *supra* note 2, at 9-15. Others have concluded that "most state commissions are moving along restructuring lines similar to the FERC in allocating stranded cost in the main part to the departing customer, [but] some mavericks like California, Pennsylvania and New Hampshire, are proceeding along other paths." Hollis & Ralls, *supra* note 2, at 15. Not surprisingly, there is a correlation between states with the highest average costs and having initiated serious reform efforts. See CPI REPORT, *supra* note 5, at 52, 70, 75-76.

11. It would be possible to advocate deregulation even if one believed that utilities have acted very efficiently in the last few decades. For instance, one might take this approach if one believed that a competitive market could better accommodate the technological shift to smaller-scale generating plants. Regulation might have been suited to years when economies of scale were reaped in large plants, but not to times when savings lie mainly in more complex and risky innovation. It is clear, however, that the justification for deregulation has been rooted in the inefficiencies and public welfare losses believed to exist in the regulated market, and not just from a desire to avoid problems in the future. See *infra* Part V.A.1.

electric companies.¹² Pipelines misread their supply market and committed to buy uneconomic gas supplies, and they discriminated against cheaper suppliers who wanted to rent pipeline space. In response, FERC made pipelines give up two very valuable rights, their minimum bill contracts and their monopoly over space on their mainlines, without any direct compensation. Then the Commission

12. It is worth clarifying what it means to call pipelines' gas purchases "mistakes" or "errors." The discussion treats pipeline take-or-pay strategies as "mistakes" or "errors" because they ended up so far off the market. This Article uses the same standard for electricity investment decisions. This is the language of the market. What those words mean in a marketplace is different from what many think they should mean in a regulatory world. The difference speaks volumes about the two kinds of economic organization.

In a market, a mistake is a decision that does not pay out, even if the reasons for disaster were utterly unforeseen at the time of decision. For instance, Ford turned down the minivan because Henry Ford II didn't want to risk the capital, but the minivan turned into one of Lee Iacocca's biggest successes when he moved to Chrysler. See DAVID HALBERSTAM, *THE RECKONING* 561-66 (1986). All of the Big Three automobile companies ignored the small-car threat in the late Fifties and early Sixties. These companies were quite willing to allow foreign manufacturers to absorb what they viewed as a peripheral market and ignored the change in market tastes. For a discussion of the Big Three's mistakes, see generally HALBERSTAM, *supra* (providing lengthier case study that contrasts Ford and Nissan to explore what happened to once-premier American automotive industry); F.M. SCHERER, *INDUSTRY STRUCTURE, STRATEGY, AND PUBLIC POLICY* ch. 8 (1996).

IBM made decisions about its personal computers that everyone today views as giving away the store, but that at the time appeared quite smart for a company whose good fortune had been tied so thoroughly to a leased mainframe business. In so doing, IBM ceded control of the computer chip and software markets for the personal computer to Intel and Microsoft. See generally PAUL CARROLL, *BIG BLUES: THE UNMAKING OF IBM* (1993) (describing IBM's almost comical sequence of bad strategic decisions).

Another example comes from the early years of car and truck manufacturing. Railroads hauled materials to build roads without realizing that cars, trucks, and buses would displace this mode of transportation. See generally STEPHEN B. GODDARD, *GETTING THERE* (1994) (describing shortsightedness of railroad industry in face of growth of motor vehicle industry). In his critique of the country's failure to develop an integrated, multi-modal transportation system, Goddard notes the irony that trucks were viewed as adjuncts of the railroad, rather than competitors, in the first decades of trucking. See *id.* at 60, 90.

In each of these cases, strategies that had been sound for years were subverted by unexpected market changes. Most of these changes were errors in forecasting both supply and demand. In each case, established companies suffered large losses because the market acted flexibly and efficiently to reward the new, small companies that guessed right (even though these companies initially may have had no more idea than the others that they were right, or *why* they were correct), and to punish beliefs that proved erroneous. The changes are easy to see only in retrospect. If one thinks that predicting product demand is easy, consider how to predict whether personal computers or network computers are the path of the future; or whether there is a market in the United States for electric cars or high-speed trains. Given the importance of the time value of money, add to those issues the problem of predicting *when* those markets will be mature enough to offer profits to successful producers.

The very human desire to argue over blame for bad investments is irrelevant in a true market system. An emphasis on blame and responsibility is a vestige of a regulatory regime, not a market system. The mistake remains, whatever its origins, and such mistakes are a risk to the firm in competitive structures. This is why investments earn profits—profit is a return for risk. And the risk of guessing wrong on the future of the market is the quintessential long-term business risk. Later sections of this Article will show that, although regulation did protect firms against short-term competition, it did not remove the long-term risk that an agency would change the regulatory structure and inject competition if the average firm strayed too far from certain competitive benchmarks.

made pipelines absorb a substantial part of their unrecoverable gas costs. This loss allocation acknowledged that regulated companies are private companies to which regulation left the entrepreneurial function, and accordingly deserve the lion's share of responsibility for management errors.

This natural gas comparison helps reveal the one-sided nature of FERC's electricity remedies. If FERC structured electricity's cost recovery in the same way that it handled stranded gas costs, electric utilities would pay more, and consumers of all types would pay less, for unused, useless, and uncompetitive assets. In the natural gas scenario, FERC made pipelines pay for many of their mistakes and called this policy "equitable sharing." In electricity, in contrast, FERC and the CPUC have not held electric companies responsible for their high costs. The two agencies have paid more heed to producer welfare—at best a residual factor in their statutory charge—than consumer welfare.

With this background, Part IV surveys FERC's and California's rules, and Part V looks at FERC's and California's justifications for their utility-friendly approach to stranded costs. FERC suggested three justifications for full pass-through of stranded electricity costs: the regulatory bargain, financial integrity, and cost causation. California relied primarily on the purported regulatory bargain and on financial integrity. Yet government regulation did not promise to protect electric companies if they made gross market errors; such protection defeats the purpose of traditional utility regulation. Further, neither financial integrity nor cost causation justifies protecting these companies from their losses to the extent that the losses reflect the companies' mistakes. In addition, efficiency is no reason to extend special government protection to compensate for these losses.

The Article concludes with some broader issues. Part VI.A explains why the principle of cost responsibility should drive allocation of today's losses. Not only is this the principle of efficient markets and of FERC's natural gas deregulation, but cost recovery satisfies the realistic expectations of utilities and their investors. Moreover, it is the one approach that can promote efficiency without jettisoning fairness.

Part VI.B shows that electric utilities might recover proportionately more than pipelines under a cost-responsibility standard. The point is not that utilities should be forced to absorb all stranded costs, thus replacing one punitive, one-sided cost mechanism with another, but that the contrary rule that has begun to emerge (that utilities should bear *none* of their stranded costs) leaves companies unaccountable

for their part in the great inefficiency of today's electric power. Neither extreme is good policy.

Many utilities can make a good case that a share of their overpriced obligations was forced on them by statute and by regulation, more so than was the case for natural gas pipelines; to this degree, there may be a greater percentage of stranded costs for which they truly should not be blamed. But a higher proportionate recovery does not mean that utilities should pay nothing. A process that threatens to make consumers pay *all* costs (and utility shareholders none) ignores the mistakes electric companies did make and grossly exaggerates the distortions attributable to regulation. FERC's and California's choice to avoid allocating any responsibility to electric companies (indeed, to not even estimate this responsibility in a generic way) deserves a place among the notable failures in American administrative history. This Article hopes to restore some much-needed balance to the debate over stranded costs.

Part VI.C considers the electricity experience in light of capture theory, which predicts that special interests within a regulated field can bend regulations for their own benefit. The failure by FERC and the CPUC to even mention utility mistakes and discrimination as they fashioned their stranded-cost remedies suggests that, if electric companies did not "capture" deregulation itself, they did dominate decisions about who should pay for the transition. They may have captured, at least in effect, the part of deregulation that matters most to them.

The concluding section considers how to put electricity deregulation back on the right track. Although FERC and the CPUC are unlikely to redo their rules, these agencies have some room to interpret their standards in a way that holds electric companies somewhat accountable. Thus, these agencies can mitigate their mistakes. Much more importantly, Congress and other states, to the extent that they adopt restructuring rules, should avoid the pro-utility bias of Order No. 888¹³ and the CPUC's measures.

13. In general, the movement to deregulate industries like electricity assumes that there should be a lot of turnover and new blood in the industry. This rare but permanent and government-compelled restructuring of regulated markets should not be confused with the ordinary incremental risk that competition may press against a regulatory franchise.

It is true that FERC needs to keep an eye on the survival of some utilities if its regime is to maximize consumer welfare. A highly unstable industry may not produce the best output at the lowest cost over time. Additionally, a punitive regulatory regime might constitute a taking of private property. See *infra* notes 403-12 and accompanying text. Takings arguments, however, are hard to support for assets acquired in a regulated industry whose investors are on notice that their assets are regulated and that is subject to regulatory change.

I. ELECTRICITY'S COST PROBLEM

FERC gave a short history of the stranded cost problem in Order No. 888. Its history is widely accepted in the electricity industry.

Into the Sixties, the industry looked like a success story. Private companies provided ever-cheaper power in the public interest. Utility costs kept falling with increases in generating scale. Companies appropriated new technologies as they built ever-larger plants. Consumers enjoyed falling real prices.¹⁴ The industry may not have been operating at or even near its true potential, but paying less for a commodity rarely seems cause for alarm. As is often the case in economics, short-term patterns obscured broader historical trends.

When the country moved into the energy crisis of the Seventies, which saw oil and gas prices that most assumed would keep rising and great concern over resource depletion, utilities and their regulators embraced large-scale generating plants, including many nuclear plants, as a way to lower costs and increase security of supply.¹⁵ This bet on a rising energy market was as bad in electricity as in natural gas. Oil and natural gas prices fell. The electricity industry's bet on the technology of large-scale plants was no better. Nuclear plants ended up costing much more than anyone expected.¹⁶ Under new

14. This happy past and the largely cozy match it produced between the companies and their regulators may explain the complacency with which so many electric companies squandered their money in huge capital investments in the early Seventies. The CPUC's staff titled a chapter on the 1945-1965 period, "The Glory Days." CALIFORNIA PUBLIC UTILITIES COMMISSION, DIVISION OF STRATEGIC PLANNING, CALIFORNIA'S ELECTRIC SERVICES INDUSTRY: PERSPECTIVES ON THE PAST, STRATEGIES FOR THE FUTURE 17 (1993) [hereinafter YELLOW REPORT]. Power sales grew rapidly, companies adopted new technologies like high-voltage transmission lines and facilities with better thermal efficiency and (perhaps best of all), as previously mentioned, rates fell in real terms through much of this period. *See id.* at 20-24.

15. *See* Order No. 888, 61 Fed. Reg. 21,540, 21,543 (1996) (codified at 18 C.F.R. pts. 35 and 385). The shift to large generating plants is striking. In 1948, only two plants in the United States had a capacity of more than 500 megawatts; in 1972, there were 122 plants with this capacity. *See* YELLOW REPORT, *supra* note 14, at 21. One motive in the Seventies was rising fuel costs. The primary fuel increase was in oil, from the "shocks" of the energy crises of 1973 and 1979-82, but coal costs also rose because of real and anticipated fuel substitution and some increased transportation costs. Natural gas costs rose in this period as well. *See* EIA, THE CHANGING STRUCTURE OF THE ELECTRIC POWER INDUSTRY 1970-1991, at 33 (1993) [hereinafter EIA REPORT].

16. One reason for the increased cost of nuclear facilities was enhanced safety regulation after the catastrophe at Three Mile Island. Purely economic discussions of the electricity industry may stray into treating the array of nuclear regulations as instances of overregulation, but one major cause for expanded nuclear regulation was the industry's systematic underestimation of the risk in complex nuclear plants. *See* CHARLES PERROW, NORMAL ACCIDENTS: LIVING WITH HIGH-RISK TECHNOLOGIES (1984) (discussing nuclear plant risks). One has to admit that even that great error had some regulatory roots in the extraordinarily misguided Price-Anderson Act, which limited utility liability for any single nuclear plant disaster. *See* Pub. L. No. 85-256, 71 Stat. 576 (codified as amended at 42 U.S.C. § 2210 (1994)).

Another major problem was that these large plants encountered operating and maintenance costs much higher than expected. For nuclear plants, operation and maintenance costs increased from \$17 to \$45 per kilowatt between 1974 and 1982; post-operational capital expendi-

technologies, small plants became more efficient on an average-cost basis than large plants. The change in electricity pricing was rapid and pronounced. Much of the century had seen great improvements in electricity generation and transmission. The industry had been "one of the leading sectors of the economy in terms of technical innovation and productivity gain."¹⁷ With greater and greater thermal efficiency, the real cost of generating electricity, that is, the "amount of heat input required to generate a kilowatt hour of electricity using steam and turbines," had fallen 40 percent between 1925 and 1945 and another 35 percent before 1965.¹⁸ This trend, however, began to reverse itself in the late Sixties. Between 1973 and 1982, the price per kilowatt hour ("kWh") rose from 5.6 cents to 8.5 cents—a 51.8 percent gain.¹⁹

The result, as summarized in Order No. 888, is that plants in the 50-150 megawatt range now may generate electricity more efficiently than the 500 megawatt plants that were so popular in the Seventies.²⁰ Average costs for large coal plants run from four to seven cents per kWh, and nuclear plants up to fifteen cents, but new, efficient natural-gas consuming plants may produce electricity for as little as three to five cents.²¹ This technological evolution has wedged its way into the costs of existing power companies, creating a division that reflects some companies' more efficient response to the market than others,

tures jumped from \$8.50 to \$28 per kilowatt. See EIA REPORT, *supra* note 15, at 33. Some of these costs were directly related to regulation. After the Three Mile Island accident, nuclear plant construction costs climbed far beyond anyone's expectations. The average construction cost per kilowatt of net summer capability for 11 plants built in 1968-71 was \$161; for seven plants built thereafter, \$4,057. See *id.* at 35. Delay mounted along with costs. A series of nuclear plants that began operating in 1972 took only four years to build; the average construction time for plants coming on line after 1982 was twelve years. See YELLOW REPORT, *supra* note 14, at 37.

Other cost overruns occurred because utilities had chosen the wrong technologies. For instance, plants larger than 600 megawatts had as much as five times the downtime (with much more capital and equipment idled, even had the duration of the interruption been the same) than 100 megawatt plants. See EIA REPORT, *supra* note 15, at 37.

17. EIA REPORT, *supra* note 15, at 36.

18. See *id.*

19. See *id.* at 33. The price increase that began in the Seventies was "even more remarkable when viewed in its historical context." *Id.* Between 1960 and 1970, the cost of electricity had fallen 30% in real terms. See *id.*

In California, average electricity prices rose between 1965 and 1981 from under two cents per kilowatt-hour to more than five cents. See YELLOW REPORT, *supra* note 14, at 31. Today California's average retail rates are over nine cents per kilowatt hour. See CPI REPORT, *supra* note 5, at 11.

20. See Order No. 888, 61 Fed. Reg. at 21,544 & n.28 (claiming that optimal plant size fell from 500 megawatts to between 50 and 150 megawatts with new combined cycle natural-gas plants). For a discussion on the rapid addition of these large plants, see *supra* note 15 and accompanying text.

21. See 61 Fed. Reg. 21,540, 21,544 & nn.29-30 (1996) (codified at 18 C.F.R. pts. 35 and 385).

and in the process challenges the view that "everyone" made the same mistakes in the last few decades. Another gap exists between the costs of current companies as a group and those of new generating facilities. This gap in turn reflects the overall technology gap between regulated firms and their burgeoning marketplace competition.

If older plants are forced to compete with new, cheaper plants, and if consumers are free to choose their power supplier, utilities with inefficient "stranded" plants could lose anywhere from \$50 billion to as much as \$500 billion²² when retail as well as wholesale (and thus state as well as FERC-jurisdictional) costs are included. No one disputes that the problem is enormous. The Edison Electric Institute, the industry's dominant trade group, believes that the figure falls in the upper part of a fifty to two-hundred-billion dollar range.²³ A recent study by Resources Data International ("RDI") puts the number at \$202 billion.²⁴ One prominent utility thinks the figure may be closer to \$300 billion.²⁵ These numbers may be somewhat exaggerated because they make little or no adjustment for mitigation²⁶ and rely

22. This outlying projection comes from one of America's large economic consulting firms, National Economic Research Associates ("NERA"). See EIA UPDATE, *supra* note 10, at 78-79 (citing NATIONAL ECONOMIC RESEARCH ASSOCIATES, *REWRITING THE RULES OF THE ROAD: RETAIL WHEELING AND COMPETITION IN ELECTRIC GENERATION* (1994)).

23. INITIAL COMMENTS OF EDISON ELEC. INST., DOCKET NO. RM94-7-000, *RECOVERY OF STRANDED COSTS BY PUBLIC UTILITIES AND TRANSMITTING UTILITIES* at 28 (Dec. 9, 1994) [hereinafter EEI COMMENTS; other comments in this FERC stranded cost proceeding will be cited only by commenter and date]. The EIA's latest survey produced estimates ranging from \$10 billion to \$500 billion, with Moody's estimating costs at \$135 billion and NERA anticipating \$500 billion. See EIA UPDATE, *supra* note 10, at 78-79. It is not hard to deduce from these numbers which side of the industry has retained NERA as its expert. An Oak Ridge National Laboratory report found the "most plausible range for potential transition costs" to lie between \$72 billion and \$104 billion. See LESTER BAXTER ET AL., *STRATEGIES TO ADDRESS TRANSITION COSTS IN THE ELECTRICITY INDUSTRY 2* (1996) (Oak Ridge National Laboratory, Energy Division report).

24. See RDI, *POWER MARKETS IN THE U.S. 1* (1997) [hereinafter RDI REPORT]. RDI's breakdown by owner classification assigns \$147 billion to investor-owned utilities, \$33 billion to municipal power, and \$22 billion to cooperatives. See *id.* The distribution by source of costs is \$69 billion from generating assets, \$53 billion in power purchases from other utilities, \$49 billion in regulatory assets, and \$42 billion in power purchase contracts from nonutility generators. See *id.*

25. See COMMENTS OF COMMONWEALTH EDISON COMPANY 16 n.4 (citing App. A, Law and Economics Report (Dec. 9, 1994)) [hereinafter COMED COMMENTS] (suggesting range of \$200 to \$300 billion).

26. Any accurate number for stranded costs must include mitigation, including "those variable or marginal costs that are avoided when generation is reduced and any revenue from the sale of system (nongeneration) services." ROSE, *supra* note 3, at 14. Of course, the savings from mitigation will be minimized by Order No. 888's failure to impose a portion of stranded costs on utilities—as long as electric companies are likely to recover their full uneconomic costs, their incentive to work hard at avoiding losses is muted at best. Cf. INGAA BACKGROUND REPORT, *COMPARISON OF GAS AND ELECTRIC INDUSTRY RESTRUCTURING COSTS 7* (1996) (noting pipelines reduced "take-or-pay" liabilities in large part because Commission had given them such great incentives to avoid costs).

heavily on such imprecise contingencies as future fuel prices, the efficiency of new firms, and demand growth.²⁷ No one denies, however, that stranded costs pose a major problem, perhaps the major problem, in electricity deregulation. These hundreds of billions of dollars in losses compare unfavorably with an industry-wide shareholders' equity of roughly \$161 billion, an installed capital base of \$525 billion, and average annual new investment of more than \$25 billion.²⁸

Most estimates of stranded costs assume that virtually all of the problem lies in generating costs. That assumption is built into reforms that typically aim at spurring competition in generation, but regulating (rather than replacing) the monopoly in distribution and transmission. Early innovators like California are beginning to study whether even portions of "distribution," including metering and power aggregating functions, can be unbundled; if so, there will be new categories of stranded costs. For the foreseeable future, however, the savings will occur via competition in generation.

Generation costs "clearly dominate overall utility costs," making up roughly 66% of those costs in 1994.²⁹ Estimates of stranded costs generally include both wholesale and retail stranded costs on the as-

27. It is impossible to know, in advance, the exact size of the stranded cost problem because, among other things, the viability of older plants depends upon relative fuel prices over their remaining lives, and the scope of loss depends so heavily on the still undetermined pass-through treatments in the states. See, e.g., BAXTER ET AL., *supra* note 23, at 2 (estimates will vary with "assumptions about future market prices, the portion of retail load that obtains market prices, and the timing and pace of restructuring").

Without discussion or disagreement, FERC cited comments suggesting that interstate stranded costs constituted roughly \$10.4 billion of \$114 billion in total investor-owned stranded costs. See Order No. 888, 61 Fed. Reg. at 61,628 & n.567. The reliability of such estimates depends on much more than the best estimates of future market prices and fuel costs; the calculations must contain assumptions about possible mitigation strategies and, critically, the timing of state reforms and speed with which entrants appear. RDI's latest study predicts that, if open access is delayed by just two years, \$202 billion in stranded costs would fall by \$50 billion. See RDI REPORT, *supra* note 24, Key Findings. Given the variation in state approaches and timing, at least some major companies will recoup their primary stranded costs because they delay the legislative or administrative process, not because they prove more efficient than expected.

The CPUC, in its restructuring order, noted that projections filed in that proceeding gave a possible range of California's stranded costs from \$8 billion to \$32 billion. See CPUC, ORDER INSTITUTING RULEMAKING ON THE COMMISSION'S PROPOSED POLICIES GOVERNING RESTRUCTURING CALIFORNIA'S ELECTRIC SERVICES INDUSTRY AND REFORMING REGULATION 125-26 (Dec. 29, 1995) (modified Jan. 10, 1996) [hereinafter CPUC DEREGULATION ORDER]. The Commission added, "[w]e do not adopt or endorse any of these estimates, but this wide range of estimated costs illustrates our reservations about the administrative approach." *Id.* at 126 n.46. The existence of large stranded costs reflects the savings available from deregulation, but the cost gap between incumbent and entering firms "is not an indictment of the inefficiency of regulation per se." White, *supra* note 4, at 236. Unraveling the efficiency meaning of stranded costs requires a careful separation of today's unnecessary costs into (1) costs that utilities incurred voluntarily and (2) costs that regulators imposed.

28. See EEI COMMENTS, *supra* note 23, at 10.

29. See BAXTER ET AL., *supra* note 23, at 4.

sumption that the states will follow in FERC's footsteps and deregulate their retail markets.³⁰

Not surprisingly, the primary stranded costs in these estimates come from outmoded generating plants.³¹ The RDI Report estimated the industry's exposure for these costs at \$69 billion.³² A second major group of problem assets are contract obligations to buy power from nonutility "Qualifying Facilities." The costs stranded under these contracts—their above-market cost—may run to as much as \$42 billion.³³ Thus power supply contracts, not just old generating facilities, are a major industry problem. Many of the contracts extend well into the future.³⁴ A third group of problem assets are "regulatory assets," which generally are accrued rights to recover the costs of various regulatory measures. This category includes many costs already guaranteed recovery. A fourth cost category often listed separately covers exposure for nuclear plants, including decommissioning costs.³⁵ Some utilities still incur significant costs from nuclear power,

30. There may seem to be no logical reason why states would have to imitate FERC, or each other, as (and if) they deregulate. States certainly vary on a wide range of factors, from average income to land area and natural resources, to such laws as their income tax and methods of funding public education. States also compete with each other for new businesses and residents, among other things. It will be very hard for any to resist deregulation as long as the process is believed to sharply lower costs. In a society in which most things of value are traded for money, it is hard to resist any change believed to produce substantial efficiencies. At the most general level, one can say that the political environment has changed so that a wide variety of organizations, including FERC and bond agencies, will expect deregulated electricity markets in much the same way (with only the particulars changed) as the World Bank has forced many developing countries to adopt similar market reforms. An interesting parallel of this process on the largest scale occurred within the international political system. See HENDRIK SPRUYT, *THE SOVEREIGN STATE AND ITS COMPETITORS* 153-80 (1994) (describing how nation-states replaced city-league form of government, and how in the later Middle Ages, the world organizational environment became inhospitable to city leagues).

31. FERC assumed "that stranded costs will be dominated by generating capacity" in its initial notice of rulemaking. See Notice of Rulemaking, *Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, 59 Fed. Reg. 35,274, 35,279 (1994) [hereinafter FERC NOPR]. This does not seem to have been seriously disputed during the comment period. The EEI lists the major categories of stranded costs as utility-owned generation, power purchase contracts, and regulatory assets. See EEI COMMENTS, *supra* note 23, at 82 (Answer to FERC Question No. 3).

32. See RDI REPORT, *supra* note 24, at 1.

33. See *id.* RDI estimates the price of uneconomic contracts to buy power from other utilities as even higher, at \$54 billion. See *id.*

34. See *id.* at 4 ("This analysis shows that over 60% of the contracts do not expire until after the year 2010."). Qualifying Facilities ("QF") contracts could have had an even more devastating impact on utilities had facilities and regulators not shifted to competitive bidding, which injected a note of realism into what can be called the QF market. See EIA REPORT, *supra* note 15, at 24.

35. The CPUC has discussed four, not three, major categories of stranded costs: generation assets, nuclear power plant settlements, power purchase contracts, and regulatory obligations. See CPUC DEREGULATION ORDER, *supra* note 27, at 114-16. It admitted, accurately, that nuclear costs are a subset of stranded generation assets, see *id.* at 125, although they deserve separate listing and, given the considerable amounts that utilities already have been forced to absorb, separate consideration in the stranded cost debate. Nuclear plant costs tend to be

even though many nuclear plant costs have been disallowed and written off.³⁶

One of the oddities of Order No. 888 is that FERC did not make any findings on the expected scope of the losses. The CPUC also failed to make findings before it decided to deregulate California's retail market. These agencies remedied a problem before they bothered to define it carefully. FERC did cite a few estimates of total stranded costs, including retail costs, but it did not endorse anyone's estimate (and the Commission rejected arguments that it cannot impose any cost-recovery mechanism without a better picture of the problem).³⁷

Perceptions about the proper way to allocate stranded costs tend to depend upon whether market conditions or regulatory changes are seen as the real cause of the problem. The market factors are the cost and technology changes already discussed. Clearly the changing technological picture occurred in part because of new laws. In 1978, Congress passed the Public Utility Regulatory and Power Act ("PURPA"),³⁸ which it hoped would reduce foreign-fuel dependence by making utilities buy electricity from alternative sources.³⁹ Con-

more prominent, of course, when states or utilities that rely heavily on nuclear power are in the room. See PENNSYLVANIA PUC PETITION FOR REHEARING 9 (expressing "great concern at the emerging threat of nuclear decommissioning costs to the vitality of the electric industry and the national economy" [sic; a truer phrasing would be "state" economy]). Pennsylvania is stuck with \$12 billion in nuclear plants. See Hollis & Ralls, *supra* note 2, at 12.

36. Cf. EEI COMMENTS, *supra* note 23, APPENDED REP. OF WILLIAM BAUMOL, PAUL L. JOSKOW, & ALFRED KAHN, THE CHALLENGE FOR FEDERAL AND STATE REGULATORS: TRANSITION FROM REGULATION TO EFFICIENT COMPETITION IN ELECTRIC POWER 31 [hereinafter EEI ECONOMISTS' REPORT] (claiming "popular misconception that [stranded] costs represent preponderantly the inflated book costs of nuclear plants").

37. For the Commission's brief summary of some other estimates and complaints about its acting before making its own findings on the scope of the problem, see Order No. 888, 61 Fed. Reg. 21,540, 21,628-29 & nn.566-69 (1996) (codified at 18 C.F.R. pts. 35 and 385). Partially to justify acting without determining the scope of the problem, FERC did argue that "the significance of such costs to the utilities that would face them may be great (and the prospect of not recovering such costs could erode utilities' ability to attract capital and be very detrimental to a diverse array of utility shareholders)." *Id.* at 21,630. Without some finding of the scope of the problem, however, this hypothetical possibility is no justification for an industry-wide rule, as opposed to one that might salvage companies for which stranded costs truly prove an insurmountable financial burden.

38. Pub. L. No 95-617, 92 Stat. 3117 (codified as amended at 16 U.S.C. §§ 2601-2645 (1994)). The EIA calls PURPA and "more stringent regulatory review of utility costs" at the state level the "immediate causes of the recent rise in nonutility electric power generation." EIA REPORT, *supra* note 15, at 19. This theory allows the EIA to claim that the causes of the threat from competition are "legislative and regulatory." See *id.* The EIA claims that the doubling of nonutilities' share of electric generation would not have occurred without PURPA. See *id.* at 24.

39. See 16 U.S.C. § 2601 (citing the preservation of national security as a congressional goal); see also H.R. REP. NO. 103-685, at 12 (1994) (discussing the historical background of the enactment of PURPA and noting that the energy shortages of the late Seventies prompted Congress to conclude that diversity of national energy sources would increase the country's energy security).

gress assumed that monopoly utilities, sheltered as they were behind regulatory entry barriers, were not diversifying as much as competitive firms would. To remedy the problem, the Act made utilities buy electricity from certain other sources ("Qualifying Facilities") as long as that power could match the utilities' "avoided cost."⁴⁰ Because someone had to calculate avoided costs (or most companies would claim to be cheaper than other suppliers), Congress gave this job to state regulatory commissions.⁴¹

After an initial lag, PURPA stimulated a lot of new electricity generation. In 1986, utilities built 80% of new capacity, and they built 50% as late as 1989. By 1990 and 1991, though, nonutilities were providing the most new generation.⁴² In 1992's Energy Policy Act, Congress boosted the pace of innovation by relaxing limitations on ownership of generating plants, as well as expanding FERC's power to make utilities move electricity from other suppliers.⁴³

PURPA was one of a series of statutes (including the Natural Gas Policy Act of 1978) known as the National Energy Act of 1978 that passed in response to the pressure of the Energy Crisis.⁴⁴ In electricity, the new policies reversed a growing trend toward monopolization. Until the mid-century, manufacturers had supplied much of their own power. Industrial facilities produced 15% of the country's power in 1950. By 1973, however, their share had fallen to under

40. "The key provision of PURPA required electric utilities to interconnect with, and purchase power from any facility meeting the criteria for a qualifying facility." EIA REPORT, *supra* note 15, at 22. "It further required that the utility pay for that power at the utility's own incremental or avoided cost of production." *Id.* There essentially were two kinds of qualifying facilities under PURPA: cogenerators that produce electricity along with some other form of energy, and "small power producers" that use waste, renewable energy, or geothermal power as primary energy sources. *See id.* at 4. The idea of nurturing alternative sources of power carries within it the idea of expanding competition for existing generators. The natural reading of this purpose, and its normal economic reading, is that an increase in diversity of supply would increase competition. Nonetheless, at least one reading of PURPA, from a source loath to give the government credit for anything, is that "PURPA was meant to be an environmental statute" and that its role in increasing competition was "entirely accidental" and, for that, all the "more remarkable." *See* THIERER, *supra* note 3, at 20.

41. *See* 16 U.S.C. § 2625(a) (designating methods by which state regulatory authorities shall determine cost of providing electrical service to each class of electrical consumers).

42. The pendulum has swung back toward utilities recently, so the long-term trend remains unclear. *See* EIA REPORT, *supra* note 15, at vii. The latest EIA UPDATE found that nonutilities added more generating capacity than utilities from 1990 through 1994, but that in 1995, utilities again took the lead, and were projected to add the most power in the following three years as well. *See* EIA UPDATE, *supra* note 10, at 13-15 (providing data on expansion of utilities and nonutilities).

43. *See* Energy Policy Act of 1992 ("EPACT"), Pub. L. No. 102-486, 106 Stat. 2776; EIA REPORT, *supra* note 15, at 20 (stating that EPACT allows FERC to open national electricity transmission system to wholesale suppliers).

44. *See* 15 U.S.C. § 3391 (1994) (setting forth natural gas curtailment policies enacted in 1978).

5%.⁴⁵ In contrast, electric utilities' share of the power market peaked in 1979, the year after PURPA, when these companies supplied 97% of the country's electricity.⁴⁶ The fact that not long ago *non-utility* sources were building almost 80% of new generating capacity illustrates just how far the balance shifted.⁴⁷

Most stranded costs will be intrastate retail costs whose fate will rest with state utility commissions. This difference from natural gas exists because electric utilities are much more vertically integrated than natural gas pipelines. In spite of the importance of regional power pools, electric companies still generate most electricity at plants in their own service territories. Accordingly, the interstate costs stranded by Order No. 888 may be one-tenth or less of all stranded costs.⁴⁸ The federal precedent of Order No. 888 nonetheless will have a disproportionate effect on all stranded costs because states look to FERC to design, as well as justify, the path of deregulation.⁴⁹ In addition, FERC's claim of expanded jurisdiction over some retail practices may expand its power into traditionally state-regulated areas.⁵⁰ The threat of federal retail legislation, driven by Congress's growing belief in the success of Order No. 888's wholesale deregulation, will stay on the political horizon for some time to come.⁵¹

Another aspect of stranded costs that deserves emphasis is how far the losses vary among utilities. A few companies, including some of

45. See YELLOW REPORT, *supra* note 14, at 49.

46. See EIA REPORT, *supra* note 15, at vii.

47. See *id.* (noting that nonutilities added 80% of net additions to total electricity-generating capacity in 1986).

48. In Order No. 888, FERC mentioned one study's conclusion that interstate stranded costs would be less than one-tenth of the total stranded costs, or only \$10.4 billion out of a total cost of \$114 billion in "potential investor-owned utility stranded investment." Order No. 888, 61 Fed. Reg. at 21,628 & n.567. Some commenters urged the Commission to gather more data on the scope of the problem. See *id.* at 21,628. No one believed that stranded interstate costs would come close to the retail stranded costs that utilities will incur after the states finish with their measures.

49. It is no accident that so many states have begun pursuing their own open access measures after the Commission began its journey down this road. See *infra* note 203 and accompanying text. The perceived success of Order No. 888 (perceived, somewhat ironically, before it had taken full effect) and of federal natural-gas deregulation has fed a drive to replicate the federal legislation and extend open access to retail power nationwide.

50. FERC's claim is "uncertain" both because of its dubious fit with the Commission's statutory grant of jurisdiction, and because the Commission's claim to direct retail jurisdiction depends on state agencies lacking authority over the same area. See *infra* note 190. It remains to be seen how many states fall into this residual category. For one account, see *infra* note 198.

51. For a summary of the state of electricity deregulation and the prospect that Congress might try to extend its reach into retail jurisdiction, see Patrick Crow, *U.S. Electricity Deregulation: A Top Energy Agenda for 105th Congress*, OIL & GAS J., Mar. 24, 1997, at 19; *Delay Hopeful, Bumpers Pessimistic, Dingell Curious about Restructuring*, INSIDE F.E.R.C., Apr. 14, 1997, at 3; Hollis & Ralls, *supra* note 2, at 17-18. Another summary of fairly recent congressional thinking can be found in the EIA's December 1996 publication. See EIA UPDATE, *supra* note 10, at 43-48 (summarizing several proposed energy restructuring bills that were pending before the 104th Congress).

the largest utilities in the country, have huge stranded costs, but most have relatively few. A crude sign of this uneven distribution is the surprisingly wide variation in average kilowatt prices. Average electricity prices range from "3 to 5 cents in the Northwest to 9 to 11 cents in California."⁵² These regional differences reflect wide differences in company efficiency. As few as 20 utilities may be responsible for half of all stranded costs.⁵³ Even in a single state, under the same

52. Order No. 888, 61 Fed. Reg. at 21,550. The spread in average prices is glaring if one puts the various states on the same page. See, e.g., Peter C. Christensen, *Overview of Electricity Generation and the Industry*, 1-18, Presented at Rocky Mountain Mineral Law Foundation, *Special Institute on the Electricity Industry* (Salt Lake City, Nov. 18-19, 1996) (on file with author) (chart of average industrial sector cost by state in 1994, showing spread from \$2.79/kilowatt in Washington State to \$8.86 in Rhode Island); COMED COMMENTS, *supra* note 25, Appendix, Law and Economics Report, tbl. 7 (1993 average revenue by customer class for selected large utilities). The CPI reproduced RDI's rate ranking in a color chart that is perhaps the most effective way to see just how wide the spread has become in average rates. See CPI REPORT, *supra* note 5, cht. 10 ("Average Retail Electric Rates, 1995 for Investor Owned Utilities"); *id.* cht. 24 (same information for non-investor-owned utilities).

Utilities with the highest costs like to argue that these variations reflect the wide differences in regulatory obligations among the states. Were that true, and if removing regulation put all companies on an equal economic footing, all utilities might tend toward the same costs. Any remaining differences could reflect regional differences in the physical conditions for generating and distributing electricity, as well as demand patterns—true market constraints. The convergence of natural gas wellhead prices has been one of the notable features of that industry's deregulation; whether this occurs for electricity generating costs is one of this industry's most intriguing \$64,000 questions.

Price differences due to unequal competence should narrow with competition as the market is cleared of inefficient firms, but differences in regulatory variation should fall, too. To the extent that cost differences reflect different state rules, one would expect deregulation to "align prices with costs," but in the process may produce "a significant reshuffling of and an increased variation in prices." Winston, *supra* note 3, at 1273. Both trends—price convergence as competition sorts winners and losers, and price convergence as artificial regulatory constraints are abandoned—will occur at the same time. Moving in the other direction will be true differences in firm skill and capability.

Economic purists cite the equalization of regional differences as one of the expected benefits of deregulation, and try to base claims that Congress or FERC can deregulate even retail costs on the need to speed the flow of interstate commerce. See THIERER, *supra* note 3, at 4, 8. This Heritage Foundation report warns darkly of "bad actor" states that might "hinder interstate commerce" by "favoring incumbent producers" and urges "[m]inimal federal guidelines" to prevent "bad actor" states from using the process to discriminate against new rival producers." *Id.* at 7-8. There would be nothing "minimal" about this kind of regulation.

53. The major stranded cost problems are concentrated in California and some of the older Northeastern and Atlantic Seaboard states. See RDI REPORT, *supra* note 24, cht. titled "Investor Owned Utilities with the Highest Stranded Investment." Of the ten companies with the greatest stranded costs, two are (two of the three) large California utilities, six are in a cluster of New York, New Jersey, Pennsylvania, and Connecticut, one is Illinois' largest utility, and one is in Texas. See *id.*; see also BAXTER ET AL., *supra* note 23, at 3 ("Only utilities in the upper Rocky Mountain states and the Pacific Northwest appear to be at little or no risk. Utilities at comparatively greater risk are concentrated in the Northeast, Midwest, Southwest, California, and to a lesser extent in the Southeast."). These investor-owned stranded costs are greater than RDI's estimated stranded costs for any publicly owned utilities.

In its February 7, 1997, study, RDI concluded that half of expected stranded costs, \$100 billion, rest with a "small group of only 20 utilities." RDI REPORT, *supra* note 24, at 2. Given the small number of utilities in most states, it is not surprising that this distribution of losses among companies produces a similarly disproportionate concentration of the problem among states. RDI believes that ten states have 86% of expected stranded costs, even though they produce

regulatory body, some companies may be crippled by their stranded costs while others have few or none.⁵⁴

This variation is important because it suggests that today's uneconomic investments were *not* the inevitable result of the best that technology, know-how, and the art of prediction could offer ten or twenty years ago. Similarly, the wide deviation in the proportionate allocation of stranded costs—how a given company's losses are divided among fossil-fuel plants, nuclear plants, qualifying-facility contracts, and regulatory assets—is another sign that not all of the investments that appear so clearly as mistakes in hindsight were the inevitable or compelled result of regulation.⁵⁵

The treatment of stranded costs will have major effects on every-

only 43% of the country's electricity. *See id.* at 3. The EIA has taken its own look at the great variability in electricity prices and expected stranded costs by region. *See* EIA UPDATE, *supra* note 10, at 80-81. As the EIA found, "[t]he distribution of these assets is quite polarized, with New England and California being at maximum risk for one-third to one-half of their rate base." *Id.* at 80. For a color chart portraying the RDI data, see CPI REPORT, *supra* note 5, ch. 38 ("RDI's Estimate of Net Stranded Investment").

It is impossible to estimate the spread of this problem across all utilities because of the uneven pace of state deregulation. We are only now beginning to see how the bulk of the states will restructure their electricity industries. The scope of stranded costs will depend upon what measures each state imposes in its marketplace, and on the treatment each accords stranded costs. One economist believes that the great spread in generating costs (and therefore in expected stranded costs) means that only a handful of high cost states, particularly California and some Northeastern states, are sure to gain from deregulation. *See* White, *supra* note 4, at 219 (Figure 1: scatterplot of average generating cost of investor-owned utilities), 223 (Figure 2: average price of investor-owned utilities by state), 226 (Figure 3: average generation costs of investor-owned utilities by state), 228 (tbl. 3: price gap between entrants and incumbents by State), 235 (tbl. 5: estimated consumer surplus from deregulation by state). White finds deregulation concentrated in states with high costs and predicts that gains for many other states are likely to be "minimal." Even if White is right that deregulation occurs primarily in high-cost states, estimates of total national savings will not be much reduced because savings will be concentrated in these states, too.

54. For utilities that did not incur stranded costs, naturally, this variation in costs makes government protection for those that did all the more infuriating. *See, e.g.*, Comments of Central Illinois Light Company, at 5-8 (Aug. 4, 1995) [hereinafter CILCO Comments]. In Illinois, one significant utility told FERC during Order No. 888 proceedings that it would have "little or no" stranded costs. *See id.* at 4. In contrast, the RDI study of stranded costs ranked ComEd, Illinois' largest utility, as having the greatest stranded costs in the country, almost \$10 billion worth. *See* RDI REPORT, *supra* note 24, ch. titled "Investor Owned Utilities with the Highest Stranded Investment."

The NRRI has cited a Moody's report that calculates that only 14 of 114 major companies examined had estimated stranded costs of more than twice the value of their equity; 27 had none, and 57 had exposure less than half of their equity. *See* ROSE, *supra* note 3, at 2 (citing *Stranded Costs Will Threaten Credit Quality of U.S. Electrics* (Moody's Investors Serv., Aug. 1995)).

The stranded-cost debate often occurs as if the pass-through question is whether utilities should have to absorb almost all of these losses. In fact, almost no one proposes 100% pass-through. The total possible exposure is not a fair test of the various proposals for a shared or balanced allocation of losses.

55. A utility's generation mix may also result from variations in state regulations and pressures, but the company variations are so great (and at times exist even within the same state) that the burden ought to be on the electric companies, not on consumers or regulators, to show that stranded costs are the result of outside constraints, and not of firm errors.

one who buys or produces electricity. It will determine the fate of companies, the competitiveness of regions, and the income that consumers and businesses have available to spend on things other than power.⁵⁶ It will affect the country's overall economic functioning. If stranded costs fall entirely on electric companies, a number of them will fail. If the losses fall entirely on consumers, the benefits of competition will be greatly delayed. Depending upon the manner in which the costs are billed, even inefficient companies may gain enough strength to fend off new entrants.

Analyzing the stranded cost "price tag" to electric companies is one way to measure the inefficiencies of the regulated regime. Another is to look at how much can be saved, prospectively, by deregulation. If the rationale for deregulation is at all valid, the savings from shifting to the market, though difficult to quantify, will be large. FERC predicted that Order No. 888's opening the market to wholesale electric generation will save consumers between \$3.8 and \$5.4 billion a year.⁵⁷ California, in a figure that probably shows both great optimism and the inefficiency of the state's three electric companies, predicts annual savings in its borders of \$4 to \$5 billion.⁵⁸ Enthusiastic market

56. As the EIA somewhat laconically put it, "[s]tates with high electricity rates, such as California and those in the Northeast, had compelling reasons to promote competition in the hope of making lower rates available to their consumers in general." EIA UPDATE, *supra* note 10, at 67.

57. See Order No. 888, 61 Fed. Reg. at 21,541, 21,550.

58. The \$5 billion in California's predicted savings comes from multiplying the 20% rate reduction intended by AB 1890, the California deregulation statute, to the bill's estimate of total state electricity consumption at \$23 billion a year. Mandated savings do not include industrial customers, but virtually all commenters assume that these customers—who are more likely to have the ability to shift to alternative fuels, to generate their own power, and to drive sophisticated bargains—will save even more than residential and small commercial customers.

Savings by larger industrial customers seem to have been the experience in the natural gas market thus far. See Paul Bautista, *Rise in Gas-Fired Power Generation Tracks Gains in Turbine Efficiency*, OIL & GAS J., Aug. 12, 1996, at 43, 44 (citing data collected by the Oil & Gas Journal showing only 5% drop in average residential prices from 1984 to 1991, but 12% drop for commercial, 40% for industrial, and 41% for electric utilities). But see CRANDALL & ELLIG, *supra* note 3, at 11 (arguing that seemingly better treatment of industrial customers results from their ability to buy power on interruptible basis, and thus reflects a real difference in transportation cost rather than favoritism in gas pricing). This period begins and ends too soon to capture the full effects of deregulation. Cf. *supra* note 8 (discussing lag problem).

Though California is but one of the fifty states, it should be the state with some of the greatest savings. The risk to its major utilities can be seen in the great spread between their average power costs and national averages or even neighboring states. Predictably, California's two major public utilities, SoCal and PG&E, are among the handful of companies with the greatest stranded costs in the country. See RDI REPORT, *supra* note 24, ch. titled "Investor Owned Utilities with the Highest Stranded Investment" (listing SoCal and PG&E as third and fourth respectively on its list of companies with highest stranded costs). Although these utilities already have filed for \$6.5 billion dollars in rate reduction bonds, it will be some time before anyone knows the full extent of their stranded costs because the CPUC has allowed them to apply each year for a new infusion of transition funding. The companies have no intention of mailing their final bill for some time. See *infra* notes 255-62 and accompanying text.

disciples prophesy annual national savings of \$50 billion and more.⁵⁹

Vast changes in the cost and efficiency of the country's most basic fuel, one that powers heat, light, manufacturing, and transportation, turn upon how efficiently we handle this ongoing shift to deregulation. This Article asserts that the stranded cost portion of the first electricity deregulations rewarded inefficiency, delayed competition, and shifted too many costs from utilities that made mistakes onto customers who had little or no voice in these decisions.

II. ONE BENCHMARK: COMPETITION HOLDS FIRMS RESPONSIBLE FOR MISTAKES

A good starting point for thinking about stranded costs is to consider what would happen in a competitive market.⁶⁰ The costs stranded after Order No. 888's open access will be the costs that electric companies will not recover if they have to compete with modern, cheaper plants and power suppliers. Utilities would not recoup these costs in a "free" or open market.⁶¹ Even industry representatives admit that many current investments are uneconomic.⁶² Such bluntness

59. See COSTELLO & GRANIERE, *supra* note 3, at 62 n.105 (reporting studies with estimates of annual savings between \$60 billion and \$108 billion).

60. Richard Pierce has analyzed the competitive and regulatory treatment of another brand of stranded costs, excess capacity in nuclear plants, in his well-known article, *The Regulatory Treatment of Mistakes in Retrospect: Canceled Plants and Excess Capacity*, 132 U. PA. L. REV. 497 (1984). Pierce agreed that such costs would not be recovered in a competitive market. *See id.* at 506, 525-26, 530. The context of Pierce's article, however, makes it quite different from this discussion. Pierce was concerned with an ongoing regulatory regime before it had been found so inefficient that it needed to be deregulated. His purpose was to decide what treatment would best ensure that utilities continued to run efficiently while still regulated. In contrast, the current electricity stranded cost issues arise because regulators have decided to move into a competitive market. Maintaining incentives for continuing regulation is not the issue. Utilities do argue that regulators must allow them these costs so that investors will continue to fund the portions of the market that remain regulated (distribution and transmission), so there is an indirect regulatory interest. *See infra* Part V.B (discussing this capital-market threat).

The principles that kept Pierce away from the alternatives of full recovery or no recovery were both rooted in regulatory concerns. Thus Pierce worried about the "Averch/Johnson" incentive to overinvest in capital, and so came out against allowing full recovery. *See Pierce, supra*, at 558. At the same time, he worried that no recovery in an ongoing regulatory regime would be "an even worse policy choice" because it would push utilities to complete unneeded plants and create a more general incentive to underinvest. *See id.* at 542, 558.

When the move is into a market that everyone assumes is competitive, correcting the over- and under-investment problems of regulation should not be of such concern. Utilities seeking full recovery naturally argue that denying them their stranded costs nonetheless will have a spillover effect, and that capital will dry up for the industry anyway. For a discussion of this argument, see *infra* notes 465-67 and accompanying text.

61. Any consideration of what to do with uneconomic electric facilities "begins with a recognition that the competitive market will classify utility generation assets as either economic or uneconomic, in whole or in part (such as at particular times of the day or year)." CPUC DEREGULATION ORDER, *supra* note 27, at 113.

62. The economists hired by EEI admit that "[i]f the generation component were unbundled and priced at competitive wholesale rates, many utilities would be unable to recover a large fraction of the costs associated with these power supply commitments." EEI ECONOMISTS'

may not be surprising: a number of utilities seem to have decided that they have to portray their predicament in the direst terms if they are to make a compelling case for public relief. If this strategy explains the extraordinary level of protection these firms have secured from FERC and the CPUC, one has to credit them for deft maneuvering within their regulatory environment.⁶³

REPORT, *supra* note 36, at 1.

63. Interestingly, because it was fairly clear that both FERC and the CPUC were going to order some form of open access, utilities did not waste much time arguing that their services were so economic that the regulated market should be left intact. For that reason, the record is not full of arguments that today's large generators are so efficient that there will be few stranded costs. Instead, anticipating market forces and knowing that many of their facilities will have a problem competing, utilities were not at all bashful about stressing that they had a lot of assets that would not survive in open competition.

What remains in dispute, of course, is why the costs of major utilities are uneconomic, and how much of their inefficiency should be blamed on regulatory failures and requirements as opposed to company error and overreaching. The failure to address these issues in Order No. 888 and in California's deregulation is the great weakness of both restructurings.

In a related contrast, electric companies put up nothing like the fight that pipelines waged against deregulation. One reason may be that, with the support that the natural gas transition has garnered as well as its overall success at surviving judicial review, the smart money is against challenging the deregulation of electricity generation itself.

Many of the surviving pipelines today support even more deregulation. A fair case can be made either that pipelines have realized they can use their remaining monopoly positions to their advantage in a partly competitive market, or that the survivors in that industry are the fittest who can expect to do well in the market battle. Given the close linkage between the natural gas and electricity industries—a linkage becoming ever tighter as companies merge across industry lines—the growing optimism among pipelines about the open market may have spread to electricity companies. Finally, it is always possible that most utilities believe they can gain from competition. One feature of business planning that some observers have noticed is a tendency to understate risks, see Daniel Kahneman & Dan Lovallo, *Timid Choices and Bold Forecasts: A Cognitive Perspective on Risk Taking*, 39 MGMT. SCI. 17 (1993), which in this context could mean that the industry as a whole overestimates its ability to thrive in a deregulated market.

Whatever the reason that electric companies held their fire and concentrated on getting compensated for transition, rather than raising the question whether there should be competition, their approach seems to have paid off in the early stranded-cost decisions. It is funny to compare this electricity outcome with producers' apparent victory in natural gas deregulation. FERC decided to stay out of those contract disputes and leave them to the courts, where producers generally won if they got to trial. Yet FERC's numbers show that producers wrote off over 80% of contract liabilities in settlements. In contrast, in Alberta, where there was a government-brokered resolution of take-or-pay contracts, one expert has estimated that producers only had to write off half of their contract expectancies. See Campbell Watkins, *Take-or-Pay Problems: Notes on Experience in the United States and Canada* 16 (Dec. 13, 1995) (copy on file with *The American University Law Review*).

Even more intriguing is the fact that FERC's notice of proposed rulemaking ("NOPR") for Order No. 500 had proposed giving pipelines a "safe harbor" for take-or-pay costs; the safe harbor would have created a presumption of prudence for payments to extinguish those costs. See *Associated Gas Distrib. v. FERC*, 824 F.2d 981, 1021-12 (D.C. Cir. 1987) (discussing FERC proposals under NOPR for Order No. 436). Pipeline responses "were overwhelmingly negative" because pipelines feared that the presumption would set a floor on their settlements. See *id.* at 1022. One reading of the electricity experience is that now we will see whether a safe harbor offers better protection to utilities with a lot of power than their ability to force settlement terms against parties who generally are not as organized or funded.

Electric companies seem to be getting even more than a presumptive safe harbor. Deregulations like California's will create conclusive determinations of prudence. FERC's indication that it will not retry the prudence of costs already "recovered" may effectively mean the same

The use of a hypothetical competitive market as a template for judging who should bear the stranded costs of deregulation seems quite fair. After all, the push for deregulation has resulted from a similar comparison of regulated markets to a very abstract model of competition.⁶⁴ Under competition, utilities' recovery would not be affected by how good or how sophisticated their mistaken decisions were when made. It is hard to think of any other private industry with similarly high capital requirements (except perhaps for the defense industry—and companies whose main customers are governments are not private in the ordinary sense) whose members have been able to shift the risk and cost of errors with decades-long lifespans onto customers.⁶⁵ The Chicago School's belief that a single

thing. Thus the treatment accorded to electric utilities appears to be much better than even a strong presumption in their favor. Of course, pipelines had less incentive to worry about needing a safe harbor as long as they expected FERC to let them pass along all of their costs. Some may have worried that in the harsh market, with competition from other fuels, they would have been unable to pass along all prudent gas costs even if the costs were allowed (at least not without the added assistance of nonbypassable fixed charges, a gift the pipelines may not have expected). These pipelines could have realized that even with a safe harbor, customers would have more incentive to search for ways to fight pass-through when faced with higher costs.

64. For the conclusion that deregulation occurred as a result of an overall ideological or cultural shift toward belief in the market, see MARTHA DERTHICK & PAUL J. QUIRK, *THE POLITICS OF DEREGULATION* 14 n.34 (1985). Derthick and Quirk's model is drawn from John Kingdon. See JOHN KINGDON, *AGENDAS, ALTERNATIVES, AND PUBLIC POLICIES* (2d ed. 1995) (applying Michael Cohen et al., *A Garbage Can Model of Organizational Choice*, 17 *ADMIN. SCI. Q.* 1 (1972)). A number of the case studies on which Kingdon relied to develop his model of political action were deregulation examples. Cf. Sam Peltzman, *The Economic Theory of Regulation after a Decade of Deregulation*, in *BROOKINGS PAPERS: MICROECONOMICS* 1989, at 1 (1989). Peltzman tried to fit a number of deregulation experiences to capture theory, but with only partial success. In contrast, the broader model of an underlying cultural change explains the speed, spread, and force of deregulation quite well, even if it is hard to explain why culture changed at this time.

65. For instance, airplane manufacturers require billions of dollars to design a new airplane, but historically the manufacturers have not been able to shift this risk to their airline customers. The fact that some major markets bear very large risks does not mean that their firms have to merge. This is the riddle behind the eternal debate over concentration and competition. Although the United States once boasted a number of aircraft manufacturers, it had only two manufacturers of major commercial airlines when this footnote first was written. Now it has one. See *Boeing, McDonnell OK Merger*, S.F. *CHRON.*, Dec. 16, 1996, at A1. The Boeing/McDonnell merger suggests that, at least in the eyes of these two companies, the level of resources needed to withstand that market's risks is extraordinary.

Merging partners invariably predict efficiencies from the merger and claim that whatever their combined resources, that is the minimum amount of capital needed to compete efficiently in their market. The combined company will start out with 200,000 employees and \$48 billion in annual revenues. See *id.* At what point did two companies with joint assets this large become too small to survive as competitors? Nothing in the merger announcement indicates why their vast separate resources were not enough to compete, why these two giants were not viable separately but will be together, or how the market will be invigorated by the loss of the competition they have produced for decades. Economics lacks an accepted framework for predicting the optimal firm size with much confidence, particularly as changes in technology, substitute products, and international competition continually disrupt any given answer.

Manufacturers who design unattractive airplanes go out of business. Some of their risk is diffused during the life of an aircraft by bulk purchase contracts, but the manufacturers generally only find enough buyers to recover their costs, much less make a profit, if an airplane proves

contract may capture all competitive gains over very long terms notwithstanding,⁶⁶ even manufacturers in markets that require extensive capital investments face repeated, staggered contract expirations, contract terms shorter than investment lives, risks from new competition, and all the related pressures of customer exit. These realities are given when consumer sovereignty is the dynamic of a market.

If today's utilities functioned in a competitive market but had invested in the plants they currently own,⁶⁷ their customers would not patronize them. Over time, industrial, commercial, and even residential customers would shy away. New companies building smaller,

itself competitive over a number of years. They do not have a margin of contract protection that lets them recoup production and design expenses if a better plane comes on the market.

Another example is the automotive industry. Cars also require billion-dollar investments. This sunk cost is spread over countless small purchases, so that each car's price covers a very small part of the manufacturer's capital investment. Sales are spread among widely-scattered buyers, with this diffusion making it even harder to shift the risk of poor design. To put auto buyers in the spot that consumers of electricity may be in after FERC and states like California are finished with them, the government would have to have forced car buyers into large buying clubs and made them enter tying contracts linking one year's purchase with three or four more cars over the following fifteen or twenty years. The buyers would have to make this commitment without knowing how product design, fuel prices, public transportation, and other factors would change in that period. Customers would only be allowed to exit if they paid Ford, General Motors, or Chrysler for the revenues lost on the purchase of as many as four or five cars.

In other capital-intensive products, whether new computers, computer chips or software, telephone systems, televisions or VCRs, manufacturers are unable to shift the risks of poor capital allocation, bad product design, or supercession by new technology onto their customers. None of these industries have anything like the benefit that FERC and California have conferred on electric utilities by letting them recover the costs of old plants that have been overcome in the marketplace. Nor does any competitive industry.

66. In a world in which transaction costs are not insurmountable, it may be true that natural monopolies can be made competitive by subjecting them to a bidding process, even if for very long-term contracts. See generally Harold Demsetz, *Why Regulate Utilities?*, 11 J.L. & ECON. 55 (1968) (discussing deficiencies in the theory of natural monopoly and the possibilities for competitive bidding in such markets). It may be ventured that the longer the contract term, however, then the more diffuse the customers, the more sophisticated the industry, the higher the transaction costs, and the likelier technological or other rapid change (including supply prices in the energy industry) will make it less likely that a bidding model will approximate the real world.

67. One of the strong currents of utility claims for stranded cost recovery flows on the argument, often implicit, that electric companies would not have made such dumb investments had they not been forced to maneuver within a regulated framework. This argument relies for its life-blood on the unproven predicate that today's uneconomic plants were in fact coerced by regulation, and were not instead, at least in large part, the voluntary decisions of the companies themselves. Presumably many new electricity generators believe they can avoid the errors of the past because they have the benefit of history. The difference between old and new costs would suggest that large-scale projects, whose costs include unusually long lifespans and high fixed costs, are inefficient under current technology. The lesson new companies probably will take from today's conditions is to keep the scale of their operations smaller and spread long-term risks. For that reason too, they are not deterred by the mounting losses of existing utilities. Right or wrong, they think they can avoid the overcommitments of their predecessors. If the pendulum of technology swings back toward larger operations, these companies will find themselves in the same boat as today's utilities, but in a deregulated market it will be much clearer who gets stuck paying for mistakes. Or, at a minimum, no agency will be around to reward losses (there certainly would be a lot of contract litigation over price and commitment terms in electricity contracts, a different kind of dispute than today's regulatory scraps).

low-cost gas generating plants would enter the market with a great advantage over companies with nuclear and other expensive plants and supply contracts.⁶⁸ All across the country, large, established electric companies would absorb a substantial part of the cost of bad decisions. The failure of individual firms is a notable feature of competition,⁶⁹ part of the process through which competition selects and rewards the fittest firms.⁷⁰ Making companies pay for their stranded costs would provide the most incentive for new capital, because it makes it easier for entrants to compete and secure market share.⁷¹ The market would punish high-cost utilities even if their decisions were as prudent as humanly possible when made. Generally, markets do not care whether a wrong decision was well thought out, supported by all known facts, or no worse than the competition. Markets indiscriminately punish long-term gambles that fail.⁷²

With an efficiency gap of the size perceived by deregulation advocates, and projections that new power can cost half or less of the average price of existing electricity, a competitive market would shift consumers toward generators having the capital, know-how, and operating skill to build and run smaller, cheaper plants. Among existing companies, utilities that had avoided long-term commitments, or that had found other ways to hedge the risk inherent in heavy sunk investments with long-term payouts, would do much better than those that jumped into nuclear and other capital-intensive, second-

68. This assumption is built into Order No. 888. See *supra* notes 20-21 and accompanying text.

69. See LESTER THUROW, *THE ZERO-SUM SOCIETY* 21 (1980) ("At the heart of capitalism and competitive markets lies the doctrine of failure.").

70. The classic discussion of this process is in Joseph Schumpeter's entrepreneur-favoring chapter on "creative destruction," an oxymoron of capitalism to most, but not to economists. See generally JOSEPH SCHUMPETER, *CAPITALISM, SOCIALISM, AND DEMOCRACY* ch. VII (3d ed. 1950).

71. Conversely, as opponents of full pass-through noted in Order No. 888, allowing full recovery will deter entrants. Some argued that utilities with pass-through protection could "remarket (or 'dump') stranded capacity at artificially low prices (made possible by the subsidy from the stranded costs recovery) and thereby gain a competitive advantage in other transactions." Order No. 888, 61 Fed. Reg. at 21,656 & n.838; see also Stephen L. Teichler, *Generation, Deregulation, and Market Power: Will Antitrust Laws Fill the Void?*, PUB. UTIL. FORT., Oct. 15, 1996, at 34, 40 (suggesting that stranded cost recovery "may render utilities indifferent to contributions to capital cost and, in fact, provide an incentive to push prices as low as possible"). Given full cost pass-through, today's utilities, which already have brand name advantages and long-standing relations with their customers, will have more capital to fight and, in addition, will have large, paid-for excess capacity that they can use to drop prices.

72. The prudence of capital investment decisions *when made* is irrelevant in a private market, except as a signal that might prop up stock prices of the companies that, on average, make the best decisions at the moment of decisionmaking. Stock buyers might reason that markets do not get outstripped by unforeseeable changes all that often. If this is true, then the best companies should tend to be those that make the most efficient decisions at the moment of investment, even if some major shifts in demand and supply are unpredictable so that some of their major investments turn out to be bad mistakes.

or third-best technologies. Electric companies that treated the duration of payout as a serious risk would do better than companies that did not.

The powerful supporting apparatus of the market—its sales force, advertising, customer networks, and communications systems—would go to work publicizing the gap between low-cost new power and electricity from established companies. With so much money at stake, new companies would spend lavishly to distribute this information;⁷³ customers would pay attention because energy bills are such significant costs.

Utilities would argue that no one will risk capital again in large-scale energy projects unless they got public relief for their losses.⁷⁴ There would be an easy answer, however, to that claim: the billions of dollars flooding the electricity market. Many well-financed organizations are eager for the risks of electricity.⁷⁵

73. See George Stigler, *The Economics of Information*, 3 J. POL. ECON. 213 (1961). See generally George Akerloff, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488, 496-98 (1970) (arguing that merchants can profit by developing reputation for honesty and providing information, implying that profit motive may cure information problems in developed economies).

74. Just this kind of argument apparently helped persuade FERC to allow electric utilities full recovery of stranded costs in Order No. 888. Thus the Commission painted a picture of utilities failing unless allowed to recover stranded costs:

First, the inability to seek recovery of stranded costs could impair the financial ability of a utility to continue to provide reliable service. This will depend on the magnitude of stranded costs and the prospect or lack thereof for recovering such costs. . . . [A denial of recovery] could seriously erode a utility's access to capital markets, or could drive the utility's cost of capital to unprecedented levels. This high cost of capital could precipitate other customers leaving the system. . . . Such a spiral could be difficult to stop once begun. Second, if some customers are permitted to leave their suppliers without paying for stranded costs, this may cause an excessive burden on the remaining customers.

Order No. 888, 61 Fed. Reg. at 21,642 & n.680. "The financial community commenters confirm our views in this regard. . . . [T]he prospect of a utility not recovering stranded costs could erode a utility's ability to attract capital and thus imperil its continued financial stability." *Id.* at 21,642.

As this Article explains in Part V.B, not only does the only "evidence" that utilities actually would fail without pass-through come from the very self-interested comments of utility shareholders, but FERC had an easy solution for any real insolvency problem: As the losses would come primarily from generating assets, a market that FERC believes is competitive for new capacity, the Commission could have required corporate unbundling between distribution, generation, and transmission assets. See *infra* notes 462-64 and accompanying text. To the extent that some generating affiliates failed, they would be replaced (in deregulation's transaction-cost-free view of the world) by competitors with much lower costs. Consumers and consumer welfare, the Commission's template, should be little threatened by such a prospect.

75. As of early 1997, there were five proposed mergers between natural gas and electricity companies with "values" of more than a billion dollars each. See Barbara Saunders, *U.S. Gas/Electric Megamergers May Slow as New Policies Tested*, OIL & GAS J., Feb. 3, 1997, at 19-20 (discussing proposed mergers and providing value, core business types, and primary markets served by each of the five companies). The resulting "BTU convergence" market "promises to be the largest competitive U.S. enterprise spawned by the wave of deregulation that started in the 1970s." *Id.* Still to come is an indication of how these mergers will be squared with the re-

This competitive hypothetical does assume one feature of a regulated world, namely, that new companies would have enough access to transmission and distribution lines for the market to punish inefficient generators. If electricity transmission and distribution were natural monopolies⁷⁶ (permitting integrated utilities to use their

restrictions on holding companies installed via the Public Utility Holding Company Act of 1935, precisely to break up the giant gas/electricity conglomerates that were dominating the power industry. *See id.* at 20-21. For a summary of recent mergers, see CPI REPORT, *supra* note 5, at 15 (tbl. 2-2, "Major Pending IOU Mergers"), 45 (tbl. 4-2, "Completed IOU M&A Activity, 1986-1995"), 46 (tbl. 4-3, "Major IOU M&A Activity 1994-1996" & tbl. 4-4, "Proposed Electric/Gas Mergers").

The picture of concentration is one that cannot be drawn accurately based on just a few years' mergers. In the Twenties, at the height of concentration, 16 holding companies controlled two-thirds of all United States electrical power. *See* EIA UPDATE, *supra* note 10, at 5. The great period of consolidation ran from 1917 through 1930; during that time, consolidations "occurred at a rate of more than 200 per year, peaking at over 300 per year in the mid-1920s." *Id.* at 89. This structural shift was followed by Franklin Roosevelt's New Deal divestiture measures, and more than 750 companies were spun off between 1935 and 1950. *See id.* From 1926 until 1975, mergers averaged a bit less than 15 a year, and from 1976 to 1995, about 3 a year. *See id.* The recent gas/electricity mergers have occurred in an industry that remains fragmented. At the same time, some mergers are worse than others, particularly in markets that are so geographically distinct, and recent mergers have included combinations of very large companies. *See id.*

Into this mix legislators and regulators also will have to factor the possibility that regulation may have maintained inefficient divisions among industry companies. "One school of thought holds that in locations where fragmentation and overlapping service exist, consolidation would improve the efficiency of companies." *Id.* Moreover, even in markets that have just one supplier, a consolidation that produces four or five vigorous national electricity suppliers may be the best medicine that "competition" and "the market" can provide. Regulators will have to pay great attention to market features, from price trends to discrimination, from access to the availability of information, if they are to be able to interpret the meaning of concentration.

76. Even most utilities seem willing to assume that these two aspects of the business lend themselves to monopoly control. *See, e.g.,* EEI ECONOMISTS' REPORT, *supra* note 36, at 6-7 (arguing that "[i]t is generally accepted that the distribution of electricity to retail customers" has natural monopoly characteristics, as do "high voltage transmission networks," while in generation, "there are some economies of scale associated with generation of electricity, but that part of the industry, considered in isolation, has never been a natural monopoly"). The economists signing off on this report include William Baumol, the father of contestable market theory, making this statement particularly significant.

One reason for electric companies' willingness to admit the monopoly characteristics of distribution and transmission may be that as long as regulators accept the economies-of-scale implications of that power, they are likelier to protect both functions from competition. But certainly utilities that think they have comparative advantages in these services will claim to see competitive tendencies here, too.

Some bold souls question whether transmission and distribution are natural monopolies. *See* THIERER, *supra* note 3, at 10 (claiming natural-monopoly theory for distribution "is only conjecture" and "evidence strongly suggest[s] that the electric industry was never a natural monopoly" and asserting that, in the industry's early years, many firms built independent infrastructures "while turning a profit"); *see also* Winston, *supra* note 3, at 1267 (arguing that the "prevalence and importance of natural monopoly is vastly overstated"). *See generally* ROBERT BRADLEY, OIL, GAS, AND GOVERNMENT (1996). Robert Bradley has argued that "[p]otential competition is the omnipresent check on existing firms (including a 'natural monopolist')." *Id.* at 857. He sees no reason why consumers could not get together and beat the power of any monopolist. *See id.* at 926-27. Bradley adds for good measure that even if markets like interstate pipeline markets are noncompetitive, "voluntary contracts and market processes can prevent 'monopolistic' outcomes." *Id.* at 914.

power to exclude competing generators), this would not be the case. But assuming that competitively priced power could find its way through monopoly systems is a reasonable assumption for an age of deregulation. The idea that generation can function competitively even with disciplined monopoly power over transmission and distribution is one of the core features of Order No. 888, as well as the key assumption of open access.⁷⁷

Alternatively, and perhaps more realistically, this "market" society could have regulated distribution and transmission, but not generation. The structure would be very much like the unbundled, partially deregulated open-access industry that is emerging. For that reason, too, the market's role in generation could have played out through an open access network.

One way or the other, the market would creep into all areas that can support competition. Companies that made bad long-term investments in power plants and supply contracts would pay the price of their errors, and today's big utilities would absorb the losses stranded by new, more effective competitors.

III. THE SECOND BENCHMARK: FERC APPLIED COST RESPONSIBILITY TO MAKE PIPELINES PAY MANY STRANDED NATURAL GAS COSTS

A second benchmark for treating stranded costs comes from the natural gas industry. That industry's combination of open access and unbundling is the model for federal and state electricity deregulation. The Commission decided to apply the same general principle to stranded gas costs that the market applies—responsibility for incurring stranded costs.⁷⁸ Because it found that assigning "blame" was "difficult" and that "no one segment" was "wholly responsible"—a finding that implicitly includes regulatory pressure among the contributing factors to pipeline errors—the Commission shared responsibility between pipelines and their customers.⁷⁹

77. FERC has dropped the requirement that generators show a lack of market dominance for new capacity because it believes this market is competitive. *See* Order No. 888, 61 Fed. Reg. at 21,542, 21,549 & n.86, 21,533. At the same time, the Commission did not have enough evidence to determine whether the *existing* generation market was competitive, *id.* at 21,553-55, and it found that transmission remained a natural monopoly, *id.* at 21,549, so it clearly believed that utilities retain power that must be regulated.

78. *See* Order No. 888-A, Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, 62 Fed. Reg. 12,274, 12,276 (1997) [hereinafter Order No. 888-A].

79. *See* Order No. 636-C, Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation Under Part 284 and Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, 62 Fed. Reg. 10,204, 10,213 (1997) [hereinafter Order No. 636-C] (holding all participants responsible "because no one segment of the industry

This natural gas decision is particularly important because it was the first industry in which the Commission had to allocate costs stranded by deregulation.⁸⁰ Thus FERC was free to devise the best remedy from scratch. In addition, FERC has explicitly cited natural gas as its model and justification for open access in electricity, so one would expect natural gas principles to apply to electricity's stranded costs as well. Finally, the natural gas orders are just a few years old, making it less likely that the Commission has benefited from a fundamental improvement in market knowledge or information.⁸¹

FERC called its solution to stranded costs "equitable sharing."⁸² The Commission held pipelines, which as private companies planned their own investments, accountable for their mistakes.⁸³ At the same time, it made consumers pay some stranded costs in an implicit acknowledgment that pipeline decisionmaking was distorted in part, but only in part, by regulation.⁸⁴

A. *Pipelines Received No Subsidy for Voided Minimum Bills or for Open Access*

The first two major gas deregulation orders, Order Nos. 380⁸⁵ and 436,⁸⁶ stripped pipelines of two valuable contract assets—in essence, stranding those assets in toto in the name of deregulation—without any direct compensation. In Order No. 380, FERC decided that the minimum bills that pipelines had with gas customers existed because of pipeline monopoly power and should be voided as "unjust and unreasonable" barriers to competition.⁸⁷ Minimum bills were guaran-

could be held accountable for the complex circumstances leading to the take-or-pay problem").

80. See Order No. 888-A, 62 Fed. Reg. at 12,392 ("The Commission and the industry had never previously faced a take-or-pay problem of this nature or magnitude. . . . [T]he Commission had no policy concerning whether and how pipelines were to recover those costs"). The Commission cited novelty as one reason why the take-or-pay crisis was "extraordinary." See *id.*

81. These few years have given the Commission time to see the early returns on natural gas deregulation, but to the extent that the Commission views those returns as signs of success, which it does, they do not harbor a reason for abandoning natural gas principles. The Commission has not said (at least, not publicly) that it thinks equitable sharing was the wrong approach for natural gas costs.

82. See Order No. 500, Regulation of Natural Gas Pipeline After Partial Wellhead Decontrol, 52 Fed. Reg. 30,334, 30,342 (1987) (there should be equitable sharing among all segments of the industry).

83. See *id.*

84. See *id.* at 30,343 (allowing pipeline to recover some costs through surcharges).

85. Elimination of Variable Costs from Certain Natural Gas Pipeline Minimum Commodity Bill Provisions, 49 Fed. Reg. 22,778 (1984) (codified at 18 C.F.R. pt. 154) (subsequent history omitted) [hereinafter Order No. 380].

86. Regulation of Natural Gas Pipelines after Partial Wellhead Decontrol, 50 Fed. Reg. 42,408 (1985) (codified in scattered sections of 18 C.F.R.) (subsequent history omitted) [hereinafter Order No. 436].

87. Order No. 380, 49 Fed. Reg. at 22,781-83 (explaining conclusion that minimum bills

teed payments that some customers agreed to make even if they did not take gas.⁸⁸ The bills were valuable contract rights that helped pipelines recover their full costs.⁸⁹ Voiding minimum bills ensured that pipelines would recover less. Thus Order No. 380 stranded some pipeline costs.

When pipelines continued to refuse to ship other companies' gas, FERC issued Order No. 436.⁹⁰ The Commission found that pipelines were blocking third parties from using interstate gas lines,⁹¹ thus defeating Congress's goal of a competitive gas market.⁹² Control over mainline pipes had great economic value, as did the ability to sell excess capacity to third parties; even more directly than with minimum bills, this power ensured that pipelines would recover their long-term costs. To foster competition, the Commission decided that pipelines wanting to sell excess capacity to anyone would have to offer the space to all outsiders on an open-access basis.⁹³ The Commission claimed that in this situation, too, it was forced to act to further competition.⁹⁴

act as a restraint on competition). The Commission claimed that:

[A] minimum commodity bill can serve as a barrier to competition. A customer is not likely to purchase gas from an alternate supplier if it is required to pay for gas it does not take from the original supplier. As such, a minimum commodity bill may inhibit the natural gas price decreases that could otherwise result from competitive forces.

Id. at 22,779 (footnote omitted). This blockage "creates serious market distortions, insulates pipelines and producers from price signals, hinders competition, and prevents pipelines and distributors from pursuing a least-cost purchasing strategy." *Id.* at 22,782 (footnote omitted).

88. *See id.* at 22,779 (minimum commodity bills generally require customers to pay full commodity price for a specified percentage regardless of actual use).

89. The disputed portions voided by FERC concerned guaranteed minimum payments for gas. Though Order No. 380 often is discussed as if it voided minimum bills in toto, it voided only the portions of those bills that recovered these costs. Variable gas costs had been a small part of minimum bills until the late Seventies, when gas costs began to rise and pipelines began to incur large risks as they contracted to take gas supplies off the market. *See Wisconsin Gas Co. v. FERC*, 770 F.2d 1144, 1151 (D.C. Cir. 1985) (discussing trends in gas costs).

90. Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, 30 Fed. Reg. 42,408 (1985) (codified in scattered sections of 19 C.F.R.).

91. *See id.* at 42,420-21.

92. *See id.* at 42,420 (commenting that pipelines may be "negating one of the primary Congressional mandates of the NGPA").

93. *See id.* at 42,410. Pipelines had a lot of extra space outside of peak hours, and the earnings from this space were important to pipeline profitability. Therefore the ability to move other companies' gas, particularly gas for swing customers who might not be willing to buy the pipeline's high-priced gas, was becoming an increasingly important right in the natural gas industry. Although FERC did not directly order any pipeline to become an open access carrier—and thus legally could say that it had not imposed common carrier status on gas pipelines, a status that Congress had voted for oil pipelines in 1906 but rejected for gas pipelines in 1938—this condition was nonetheless an extremely effective way of making sure that pipelines would become open access carriers. As the D.C. Circuit would say, with only slight exaggeration, it was like "the choice between the noose and the firing squad." *Associated Gas Distrib. v. FERC*, 824 F.2d 981, 1024 (D.C. Cir. 1987) [hereinafter *AGD I*]. Not surprisingly, every major pipeline became an open access carrier.

94. *See* Order No. 436, 50 Fed. Reg. at 42,420.

Order No. 436 also reduced the value of a pipeline's primary asset (its space) by giving customers on open-access systems the right to convert firm gas purchases into a right to ship the same volumes of gas.⁹⁵ Thus pipelines would be forced to let competitors ship gas on the same terms, thereby allowing these other firms to bring cheaper gas to the pipelines' customers.

Often described as "unbundling" the pipeline's "merchant" role as a gas seller from its job as a transporter,⁹⁶ Order No. 436 was a dramatic restructuring of the way gas is sold in the United States. As with electricity, so in natural gas open access created more stranded costs. Not only did Order No. 436 make it harder for pipelines to recover their gas costs, but open access produced a released capacity market for mainline space that reduced many pipelines' revenues from their bread-and-butter transportation services. Yet Order No. 436 did not include compensation for these changes.

The Commission did not point to individually imprudent pipeline decisions in Order Nos. 380 and 436. Instead, it claimed that the contract structures of minimum bills and closed access had produced unjust, unreasonable and discriminatory rates across the industry.⁹⁷ These restrictive practices were defeating Congress's quest for a competitive gas sales market, the policy written into the Natural Gas Policy Act of 1978, as well as the Natural Gas Act's general goal of "just and reasonable" rates.⁹⁸ The gas orders illustrate the broad discretion the Commission enjoys to change asset recovery, even without compensation, if necessary to foster competition.

Order Nos. 380 and 436 cannot be understood without including the Commission's perception that pipelines had made mistakes that would be stranded in a competitive market. Both orders rested on the belief that the Commission had to act after the economic outcome of the regulated market had become significantly worse than the apparent competitive alternative,⁹⁹ and the belief that regulated

95. See *id.* at 42,425-26 (if pipeline chooses to provide self-implementing transportation, it must give customers option to convert their service from sales to transportation). A less commonly discussed pro-competition order, Order No. 451, required pipelines to renegotiate all old gas supply contracts with a given producer if they tried to renegotiate even one (thus freeing a large amount of gas for renegotiation to market prices). See *generally* Ceiling Prices; Old Gas Pricing Structure, 51 Fed. Reg. 22,168 (1986) (codified in scattered sections of 18 C.F.R.) [hereinafter Order No. 451].

96. See *AGD I*, 824 F.2d at 994 ("The essence of Order No. 436 is a tendency... to 'unbundle' the pipelines' transportation and merchant roles.").

97. See Order No. 436, 50 Fed. Reg. at 42,420-21.

98. See Order No. 380, 49 Fed. Reg. at 22,779, 22,781-82.

99. See *id.* at 22,779 (minimum commodity bills allowed pipelines to recover variable costs not actually incurred while "inhibiting natural gas price decreases that could otherwise result from competitive forces"); Order 436, 50 Fed. Reg. at 42,420 (aggravated price distortion led to

companies were not entitled to special relief for being forced to compete.

The finding that minimum bills and closed access were products of market power *and* prevented just and reasonable rates (a separate problem, as pipelines might have great power yet charge fair rates) embodied a number of judgments: (1) the Commission could test the regulated market against a hypothetical competitive market; (2) under this standard, pipelines were making bad (uncompetitive) decisions; (3) pipelines were using their power to protect business they would lose under competition; and (4) the duty to protect "just and reasonable" rates did not permit full rate recovery.

In Order No. 380, the Commission claimed that minimum bills prevented "price decreases," "competition," and "pursuing a least-cost purchasing strategy."¹⁰⁰ Pipelines were imposing contract terms that were unnecessarily expensive.¹⁰¹ In other words, they were saddling customers with obligations whose economic necessity had disappeared. Similarly, in Order No. 436, FERC found that discrimination in pipeline access was preventing companies from participating in the competitive wellhead market.¹⁰² Pipelines had chosen to maintain an inefficient business structure that damaged consumer welfare.¹⁰³ In each case, the restructuring rested on the perception of a gap between what competition could bring and the subpar performance of regulated firms.

B. Pipelines Bore Many Take-Or-Pay Losses

In Order Nos. 380 and 436, FERC imposed the costs of inefficient practices on the pipelines that designed those practices. These orders left pipelines with losses on gas costs and pipeline capacity in the name of deregulation, fuller markets, and consumer welfare. Still unresolved was what to do about pipelines' high-priced gas. Pipelines had signed billions of dollars in long-term take-or-pay contracts at very high prices and with large obligations to pay, even when pipelines could not take the gas.

It is quite possible that the Commission never would have given pipelines any relief for natural-gas deregulation if left to its own devices. In Order No. 380, for instance, FERC rejected requests for

competitive pressures requiring change in regulations).

100. See Order No. 380, 49 Fed. Reg. at 22,779, 22,782.

101. See *id.* at 22,781-82.

102. See Order No. 436, 50 Fed. Reg. at 42,420-21.

103. See *id.* at 42,421 (pipeline actions resulted in "unnecessarily high energy costs to consumers and a large loss to the American economy in jobs, production, and net economic efficiency").

take-or-pay relief by noting that it did not have to act on that question while deciding the fate of minimum bills.¹⁰⁴ In reviewing the Order, the Court of Appeals for the District of Columbia let the Commission off lightly because it assumed the Commission had only deferred action.¹⁰⁵ In what would turn out to be a prophetic warning, the court took pains to note that the Commission had not decided whether "take-or-pay clauses should be prohibited."¹⁰⁶

When FERC issued Order No. 436, which the court called a "complete restructuring"¹⁰⁷ of the industry, it said nothing about the take-or-pay issue. This time the reviewing court lost its sense of humor. FERC had claimed that it did not need to allow take-or-pay relief because Order No. 436 would not increase pipeline liabilities, and because pipelines were successfully negotiating their way out of the contracts anyway.¹⁰⁸ In *Associated Gas Distributors v. FERC* ("AGD I"), the inevitable appeal, a District of Columbia court vacated Order No. 436 with unusually harsh language about trapped take-or-pay costs.¹⁰⁹ The temper of the court's comments is important for the electricity stranded cost debate because they were so critical of FERC's decision to make pipelines absorb their uneconomic gas costs. Thus the ultimate, later judicial approval of FERC's final policy, which still left many of those costs with the pipelines, indicates that FERC would be on solid ground if it forced electric utilities to shoulder responsibility for uneconomic assets. In fact, FERC may be

104. See *id.* (minimum bill and take-or-pay issues not "inextricably linked"). FERC offered several reasons why action might never be needed: minimum bills were not directly linked to take-or-pay contracts, eliminating the bills would encourage competition, and the Order was expected to spur renegotiation of many contracts. See *Wisconsin Gas Co. v. FERC*, 770 F.2d 1144, 1160 (D.C. Cir. 1985).

105. The court agreed that the take-or-pay problem was not so "inextricably" tied to minimum bills that it had to be treated at the same time. See *id.* at 1159-60 ("An agency should not be paralyzed by having to decide all relevant issues at the same time."). The Commission questioned its authority to change take-or-pay terms in NGA contracts, and whether it could take action only against NGA contracts. See *Elimination of Variable Costs From Certain Pipeline Minimum Commodity Bill Provisions*, 49 Fed. Reg. 31,259, 31,265 (1984) [hereinafter Order No. 380-A].

106. *Wisconsin Gas*, 770 F.2d at 1159.

107. *Associated Gas Distrib. v. FERC*, 824 F.2d 981, 993 (D.C. Cir. 1987).

108. See *id.* at 1023.

109. The *AGD I* court accused FERC of "blindness" on the possible impact of open access and a "tendency to elevate into affirmative benefits what are at best palliatives." *Id.* at 1025. In language that played to the pipeline audience (and would overpopulate their later briefs), it likened the "choice" to go open access to "the choice between the noose and the firing squad." *Id.* at 1024. In the eyes of the court, the Commission's reasoning failed the requirement of reasoned decisionmaking; the court remanded Order No. 436 for reconsideration. See *id.* at 1025, 1030. Given the majority's intemperate language, the message that FERC had to do something on the take-or-pay situation was inescapable. Judge Mikva concurred to state his even stronger belief that, whatever FERC might think, inaction on take-or-pay was unacceptable. See *id.* at 1045 (Mikva, J., concurring) (positing that the Commission's options should "not include doing nothing whatsoever to assuage the take-or-pay situation").

required to do so. The link between these natural gas and electricity issues, and the precedential value of the natural gas example, is close and binding because Congress defined the key parts of FERC's natural gas and electricity mandates in virtually identical terms.¹¹⁰

Even with Order No. 436's remand, FERC still may have hoped to avoid administrative relief for stranded gas costs. It began collecting data on the take-or-pay problem as if it intended to come up with a remedy, but it failed to issue a rule or order.¹¹¹ By the second appeal of Order No. 436, two years later, the Commission still had done nothing.¹¹² This time the court ordered FERC to issue a final decision on take-or-pay recovery within 60 days.¹¹³ To make its message clear, the court accused the Commission of having "done nothing that even purports to comply" with *AGD 1*.¹¹⁴ The judges charged the Commission with a "half-explained cunctation" that showed it was just buying time until the problem went away, "i.e., until such time as the agency will have accomplished its purpose regardless of whether it can warrant its authority."¹¹⁵

After this second remand, FERC issued Order No. 500.¹¹⁶ This intermixing of take-or-pay relief with the minimum bill and open access orders is significant because some of the economic costs that Order Nos. 380 and 436 imposed on pipelines materialized as an inability to pass along take-or-pay costs. It is true that pipelines received no direct relief for those two orders. At the same time, take-or-pay relief in Order No. 500 provided an indirect remedy for some of the effects of Order Nos. 380 and 436, as well as for the high-cost gas problem that pipelines would have had even if those orders had not exacerbated the take-or-pay problem. What never will be known is whether the Commission would have granted any take-or-pay relief

110. Compare 15 U.S.C. § 717c(a-b) (1994), with 16 U.S.C. § 824d(a-b) (1994). The Natural Gas Act, passed in 1938, requires that all gas sold under its jurisdiction be sold at "just and reasonable" rates and deems all rates and charges not satisfying this requirement "unlawful." 15 U.S.C. § 717c(a). It forbids granting any "undue preference or advantage" or maintaining "unreasonable difference[s] in rates, charges, service, facilities, or in any other respect, either as between localities or as between classes of service." *Id.* § 717c(b). The Federal Power Act, passed in 1935, has similar requirements. See 16 U.S.C. § 824d(a-b) (employing virtually identical language as 15 U.S.C. § 717c(a-b)).

111. See *American Gas Ass'n v. FERC*, 888 F.2d 136, 142 (D.C. Cir. 1989).

112. See *id.* The Commission had issued an interim rule but failed to present a final rule. See *id.*

113. See *id.*

114. See *id.* at 147.

115. See *id.* at 148. The court added that the Commission was pressuring everyone in the natural gas industry to settle take-or-pay contracts "without its ever having taken a final, reasoned position on how this should be done." *Id.* at 151. FERC's inaction suggested that "the Commission concluded long ago that it could not justify its position." *Id.*

116. Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, 52 Fed. Reg. 30,334 (1987) [hereinafter Order No. 500].

had the Court of Appeals for the District of Columbia not repeatedly reversed and remanded its orders. It is clear that FERC never tried to let pipelines recover *all* of their stranded take-or-pay costs, the general relief it has given electric companies.

In Order No. 500, FERC split responsibility for stranded gas costs between pipelines and their customers. A similar approach to stranded electricity costs would make utilities absorb many losses and pass a share along to customers. FERC's gas remedy was to make pipelines and their shareholders absorb between 25% and 50% of high-priced natural-gas costs. If they absorbed these costs, FERC would let them bill an equal amount, from 25% to 50%, to customers in a fixed charge.¹¹⁷ Any residual costs (for instance, 50% if a pipeline chose to absorb just 25% and pass through 25%) could be added to the ordinary rate and recouped if customers would buy the pipeline's expensive gas.¹¹⁸ Or a brave pipeline could ignore the sharing mechanism and try to pass 100% of its costs through in volumetric charges.¹¹⁹ Full volumetric pass-through was unlikely, however, because the pipelines' problem was how to get customers to buy their expensive gas when open access was making much cheaper gas available. Even trying to bill such costs would guarantee bitter rate battles. Pipelines ultimately would seek equitable sharing for about 40% of their stranded contract costs.¹²⁰

Though the sharing formula may seem to spread the burden among just two industry parties—pipelines and their end consumers—gas producers bore the greatest loss. In Order No. 500-H, FERC tallied data submitted by pipelines to conclude that producers absorbed and wrote off over 80% of estimated take-or-pay costs.¹²¹ When coupled with Order No. 500 and pipeline market power, the

117. Not surprisingly, there was much litigation over the structure of this fixed charge. For instance, FERC's initial allocation formula, which relied on the pattern of recent purchases, was invalidated for breaching the filed rate doctrine. *See American Gas Distribs. v. FERC*, 893 F.2d 349 (D.C. Cir. 1989).

118. *See* Order No. 500, 52 Fed. Reg. at 30,342-43 (discussing methods for pipelines to recoup take-or-pay costs from customers).

119. *See id.*

120. *See* Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, 54 Fed. Reg. 52,344, 52,357 (1989) [hereinafter Order No. 500-H]. Pipelines absorbed another 40%, and billed the rest as volume surcharges. *See id.* This is not 40% of total pipeline take-or-pay exposure, because pipelines were able to use their leverage to negotiate away over 80% of that liability. Equitable sharing only applied to whatever costs pipelines were unable to shift to producers. *See infra* note 121 (discussing FERC calculations of take-or-pay settlements).

121. *See* Order No. 500-H, 54 Fed. Reg. at 52,356. FERC calculated that over \$44 billion in take-or-pay liabilities settled for just 18.6 cents on the dollar. *See id.* at 52,356 tbl. 5. These are overly precise estimates of the savings. *See* American Gas Ass'n v. FERC, 912 F.2d 1496, 1509 (D.C. Cir. 1990) ("The precision suggested by the figure 18.6 cents is illusory."). The numbers are based on pipeline filings, however, and suggest the general impact of natural gas stranded costs.

Commission's early inaction on take-or-pay had the effect of spreading gas costs on three parties.¹²² Shifting costs to producers was not part of FERC's formal remedy—indeed, the Commission had assumed that it did not have the power to rewrite most take-or-pay contracts¹²³—but it was happy to exploit this marketplace development. The diffuse structure of gas production let pipelines shift many of their problems back to producers without regulatory scrutiny.

FERC enacted Order No. 500's "equitable" formula without giving its opinion on how much blame pipelines should bear for the mess into which their purchases had gotten them and their customers.¹²⁴ Nor did FERC decide how much state and federal regulators had distorted these pipeline decisions.¹²⁵ To the contrary, the Commission deliberately avoided findings of fault and blame.

In prudent-cost hearings over take-or-pay costs, the Commission would have had to decide the extent to which pipelines were imprudent, under the fraud-and-abuse standard, for buying gas that they could not resell without government help. All FERC would say publicly was that this blame should be shared:

The causes of the pipelines' take-or-pay problems are many and complex. It is undoubtedly true that some pipelines independently entered into contracts incorporating both high prices and high take-or-pay levels. At the same time, pipelines entered into contracts, which were based on the anticipated demands of their customers, and whose terms reflected those which producers were able to obtain under the then prevailing market conditions. . . . *The Commission recognizes that it is difficult to assign blame for the pipeline industry's take-or-pay problems.* In brief, no one segment of the natural gas industry or particular circumstance appears wholly responsible for the pipelines' excess inventories of gas. As a result, *all segments should shoulder some of the burden of resolving the problem.*¹²⁶

FERC was blunt about its desire to avoid allocating responsibility more specifically:

In formulating the proposed policy, the Commission consciously sought to avoid, to the extent possible, lengthy and potentially

122. One can argue that retail electricity deregulation will be different from FERC's natural gas restructuring because Order No. 888 does not impose costs on retail customers. But given the pass-through of wholesale gas costs to end-customers by local distribution companies, this argument rests on too broad a generalization about the gas market.

123. See Order No. 380-A, 49 Fed. Reg. 31,259, 31,265 (1984) (producer take-or-pay issues raise "an unsettled area of the Commission's jurisdiction").

124. See Order No. 500, 52 Fed. Reg. at 30,334.

125. As one federal court has recounted, it was "under pressure from the Commission" that interstate pipelines "had typically purchased gas under contracts for very long terms." *AGD I*, 824 F.2d at 995.

126. Order No. 500, 52 Fed. Reg. at 30,337 (emphasis added).

complex hearings involving an attempt to quantify and ascribe blame for the accumulation of pipeline take-or-pay liabilities. In the Commission's judgment, the principal objective should be to design and implement procedures to deal quickly, effectively, and positively with the take-or-pay problem. To this end, the Commission proposed a rebuttable presumption that a pipeline's agreement to assume an equitable share of take-or-pay costs would be sufficient to take account of any imprudence on the part of that pipeline in incurring take-or-pay liability.¹²⁷

The Commission did not prohibit review of pipeline gas purchasing, but it did the next best thing by ruling that the showing of "imprudence" needed to overturn a pipeline's equitable sharing plan would be "difficult."¹²⁸ Moreover, the review would come with a thinly veiled threat. In the hearing, the pipeline could ask to recover *all* of its costs. No matter how much it had volunteered to absorb, the pipeline would be entitled to all costs it could show were prudent.¹²⁹ In this way, customers faced the risk that challenging a pipeline's Order No. 500 plan could increase the costs they ultimately had to pay.¹³⁰

The most significant parts of Order No. 500 for the electricity debate are the decision that stranded costs should be allocated in proportion to responsibility for incurring such costs, and the decision to make pipelines pay for much of their overpriced gas. The decision that "responsibility" should be the watchword, so that pipelines could not hide behind regulation or behind any "expectation" of a sheltered customer franchise, is clearest in Order No. 528-A. This Order came into being because the courts struck down the formula FERC had created to pass along the special Order No. 500 charge.¹³¹ In the process of refining the recovery mechanism, FERC stated Order No. 500's basic rationale bluntly. Order No. 528-A's explanations are

127. *Id.* at 30,341; *see also id.* at 30,342 ("The Commission believes it is necessary to expand the proposed mechanism to provide for sharing of take-or-pay costs through market forces as well as through voluntary agreement.").

128. *See id.* at 30,341.

129. *See id.* (explaining that pipeline's recovery would not be limited to amount initially claimed).

130. FERC added another provision to help pipelines battle producers. In a "transportation credit" provision, it determined that a pipeline "need not transport a particular producer's gas unless that producer signs an affidavit offering to credit the transported gas against the pipeline's take-or-pay liability to that producer." *Id.* at 30,338. For producers captive to a single pipeline, this provision legitimated blackmail. Many pipelines were refusing to take or pay for any gas under their contracts. On single-connected wells, producers had no other way to get their gas to market, even if they only sought to mitigate their damages. With the transportation credit, they could not sell their gas to another buyer pending litigation unless they extinguished the pipeline's liability. Pipelines could force smaller, weaker producers to settle for very little value.

131. *See supra* note 117.

particularly important because the Commission later would say that this is where it announced its true rationale for equitable sharing.¹³²

Order No. 528-A took a stand on Order No. 500's ground of responsibility for incurring uneconomic costs. It defined the "fundamental principle [as being] that all segments of the industry . . . should share in the costs of resolving pipeline take-or-pay obligations,"¹³³ and rested this application on an analysis of blame. The Commission "has stated repeatedly that no single segment of the industry is to 'blame' for those transition costs."¹³⁴ Responsibility for uneconomic contracts was the principle applied to the stranded problem.¹³⁵

Once again, in an unfortunate omission for those interested in electricity, the Commission did not explain *how* it decided that not just pipelines, but also "producers, [local distribution companies], industrial end-users, and other consumers" were responsible for *pipelines'* gas buying practices.¹³⁶ But at least the principle was clear: the Commission was looking at responsibility for the investment decisions that had turned out to be uneconomic.

In addition to making it clear that responsibility—cost accountability—was its guiding principle, Order No. 528-A contained a strong reminder to pipelines that the Commission would not salvage take-

132. In Order No. 888-A, FERC said that Order No. 528-A gave the "fullest justification for [Order No. 500's] absorption requirement." Order No. 888-A, 62 Fed. Reg. at 12,393.

133. Mechanisms for Passthrough of Pipeline Take-or-Pay Buyout and Buydown Costs, 54 F.E.R.C. Reports ¶¶ 61,095, 61,303 (Jan. 31, 1991) [hereinafter Order No. 528-A].

134. *Id.*

135. FERC discussed two other ratemaking principles, but only because they bolstered and did not replace investment responsibility. The Commission added that, "[f]urthermore, all segments of the industry have benefited from the transition to a more competitive market." *Id.*; see also *id.* at 61,298 (stating that the Commission "is mindful that many have benefited significantly from the development and maturation of the open-access transportation program"). This statement suggested that the Commission might impose some costs on parties who benefited from the transition to competition, even if they were totally free of fault for pipelines' bad investments.

FERC also claimed that equitable sharing emerged from a complex balance of benefits and burdens: "[T]he Commission must use its expertise to consider, weigh, and balance the relative benefits and burdens on each segment of the industry." *Id.* at 61,299. This language in turn suggested that the Commission might shift costs to avoid a disproportionate impact on any one party. In the context of the "fundamental principle" that everyone was to blame, this made good sense; the Commission should not allocate a shared responsibility in a way that penalizes only one side in the industry, or that leaves any group scot-free.

FERC adjusted Order No. 528-A for "ability to pay" in another way. Although Order No. 500 allowed pipelines to recover, at most, 50% of their costs in a volumetric surcharge, the Commission had raised that ceiling to 75% for "new costs not previously included in an Order No. 500 filing." *Id.* at 61,300. Its concern was that as customers switched out of firm gas sales by either "switching to transportation . . . or leaving the system altogether, . . . it may not be practicable for these pipelines . . . to recover those costs other than through a volumetric surcharge." *Id.*

136. See *id.*

or-pay contracts. FERC refused to protect pipelines even if the shortcomings in their contracts only became apparent because of regulatory changes that opened the gas market to competition. Pipelines had argued, as electric companies do today, that they were entitled to a "reasonable opportunity to recover all prudently incurred costs."¹³⁷ FERC's response was that this "opportunity" did not shield them from having to sell their product in a competitive market. FERC indicated that "[pipelines] ignore two other equally well-established principles: (1) that the Commission need not provide pipelines a mechanism for guaranteed recovery of costs which market conditions would not otherwise permit them to recover and (2) that current ratepayers should only bear the legitimate costs of providing service to them."¹³⁸

In explaining that regulation does not mean immunity from competition, the Commission drew a subtle distinction that it has ignored in Order Nos. 888 and 888-A. The problem of unrecoverable gas costs existed "because" of regulation, in the sense that pipelines could have recovered even very uneconomic gas costs if they still had minimum bills and still could restrict customers to bundled gas sales and closed-access pipelines. Thus in the most fundamental sense, regulatory changes that exposed pipelines to competition, such as the NGPA and Order Nos. 380 and 436, "caused" pipelines' recovery problem.

Yet regulation was only one of two conditions necessary for take-or-pay costs to pose an industry-wide problem. All the orders did was pave the way for other gas sellers to compete with merchant pipelines. Neither FERC nor Congress prohibited pipelines from recovering gas costs; deregulation is associated with losses because of already-existing pipeline anticompétitiveness. The Commission still set rates that would allow full recovery of investment plus a reasonable return, on one condition. It was not regulation alone, but the drastic bloating of costs that put pipelines in jeopardy; Pipelines still had to persuade customers to buy their gas. FERC pointed out that pipelines' having to absorb gas costs "results ultimately from conditions in the natural gas market, . . . not Commission decree."¹³⁹ After all, FERC had allowed pipelines the alternative of ignoring equitable sharing and trying to pass through 100% of their costs in ordinary

137. *Id.* at 61,303.

138. *Id.* FERC noted that courts "have consistently held that the Commission need not protect pipelines from underrecoveries of costs resulting from market conditions." *Id.*

139. *Id.* The Commission continued, "[N]onetheless it is market conditions generally that prevent open access pipelines from recovering a significant portion of their take-or-pay costs through their commodity sales rates." *Id.*

rates.¹⁴⁰ Pipelines could not do so, of course, because their gas costs were too far out of line with market prices.

In explaining equitable sharing, the Commission rejected several arguments that it has since used to justify giving electric companies full cost recovery. For instance, it said that equitable sharing, under which pipelines paid many costs, was sufficient for problems of financial integrity. Equitable sharing allowed recovery of "a sufficiently large percentage of the costs so that their financial viability and ability to provide service to their customers is not undermined."¹⁴¹ FERC has not attempted a similarly modulated, balanced approach in electricity.

Pipelines claimed that regulated companies have a right to all prudently incurred costs.¹⁴² This is important for electricity because, in Order No. 888, FERC used this argument to justify full cost recovery. In Order No. 528-A, in contrast, FERC reminded pipelines that even prudent costs are not recoverable if they are not "used and useful."¹⁴³ That assets be used and useful is an independent requirement separate from prudence. FERC spoke very plainly in explaining that prudence is not the end-all and be-all of regulation, noting that "the fact that those costs may have been prudently incurred does not mean that the pipeline must be given the guaranteed right to recover all of those costs."¹⁴⁴

This holding represented FERC's response to pipeline arguments that they should be guaranteed recoveries because their contracts "may have been entered into to meet the reasonably anticipated needs of the pipeline's customers."¹⁴⁵ Pipelines argued that they were victims of the fact that "the full anticipated needs may not have materialized in many instances."¹⁴⁶ In Order No. 528-A, FERC *rejected* the argument that a "reasonable expectation" of continued service was enough to protect recovery if the assets a regulated firm bought to provide that service turned out to be uneconomic. In direct conflict, in Order No. 888, the Commission would build its recovery mechanism directly on electric companies' "reasonable expectations" of a continuing obligation to serve.

Order No. 528-A made as clear as words can convey that regulation

140. See *id.* (noting that pipelines had option to seek recovery of 100% of prudently incurred take-or-pay costs under Order No. 500).

141. *Id.* at 61,304.

142. See *id.* at 61,303 (discussing pipelines' proposed recovery principle).

143. See *id.* (discussing "used and useful" as a "second principle"); see also *infra* notes 415-21 and accompanying text.

144. *Id.* at 61,304.

145. *Id.*

146. *Id.*

does not excuse industry participants from keeping up with market conditions. Congress and the Commission had taken a series of steps to remove regulations that protected pipelines and to bring in competition. When FERC then said that the “ultimate[.]” problem was that “conditions in the natural gas market . . . do not permit the pipelines to recover all of their costs,”¹⁴⁷ it did not mean that regulations played no role in creating that exposure. Of course they did. The market would not have mattered, no matter how great its potential, without open access and unbundling and the changes the regulations made in property rights. When regulatory fetters were released, however, the underlying uncompetitiveness of pipeline gas purchases was just as necessary to making take-or-pay costs unrecoverable. That is what FERC meant when it said that pipelines had forgotten that only “legitimate costs,”¹⁴⁸ costs satisfying the used and useful principle as well as prudence, were recoverable. Even if pipeline costs were prudent, pipelines still did not have a “guaranteed right to recover all of those costs.”¹⁴⁹ As the Commission then understood, pipelines were trying to transform an “opportunity” to recover costs into a “guaranteed” right of payment regardless of efficiency. And so the pipelines disregarded a second principle: FERC does not have to guarantee recovery of costs “which market conditions would not otherwise permit them to recover.”¹⁵⁰

Regulated markets always exist in relation to the potential of unregulated competition. The regulated firm must make sure that it is at least moving in the same direction as this partly hypothetical counterpart. It is at risk that technology will change so rapidly, or its investments will turn out to be so uneconomic, that a large gap will emerge between its prices and those that unregulated firms *could* provide if they are allowed to compete. The potential of competition, as it evolves and transforms itself by technology, stalks every regulated firm.

The argument that pipelines (or electric utilities) have protection from parallel changes in this more potent market turns the regulatory framework on its head. Traditionally, the limits on rate caps determine how far commissions can go in limiting, by imposing price ceilings, the power exercised by regulated companies. This rate power exists to protect consumers. The allowed rate is to be a proxy for the competitive price. Nothing in this measure to protect con-

147. *Id.* at 61,303.

148. *Id.*

149. *Id.* at 61,304.

150. *Id.* at 61,303.

sumers suggests that the rate also becomes a price floor that protects regulated companies against competition if their investments turn out to be so inefficient that billions of dollars in assets will be idled by the simple act of letting customers choose their suppliers. The thrust of Order Nos. 380, 436, and 500 is that pipelines remain at risk under an ongoing, long-term comparison with competitive markets. The Commission's job is not to insure pipelines—or electric companies—against competition by transforming structures created to protect consumers into a shield for monopoly power.

C. Order No. 636 Did Not Change the Primary Gas Recovery Rules

No discussion of natural-gas restructuring is complete without mentioning Order No. 636. In an order moving up on its second appeal, FERC opted for a very different approach than equitable sharing. Like Order Nos. 380 and 436, Order No. 636 was driven by FERC's determination that pipeline practices were blocking a competitive gas sales market. This time FERC found that open access shippers were not getting the same quality transportation as direct customers for firm pipeline space. Bundled service was "operating, and [would] continue to operate, in a manner that causes considerable competitive harm to all segments of the natural gas industry."¹⁵¹ The remedy was to unbundle, or split up, transportation from the other pipeline services.¹⁵²

One would have expected FERC to continue its Order Nos. 380, 436, and 500 precedents and make pipelines (as the source of uncompetitive practices) pay a heavy share of the resulting stranded costs. This did not happen. In Order No. 636, FERC identified four kinds of stranded¹⁵³ costs: unrecovered purchase adjustments, gas

151. Order 636, Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation Under Part 284 of the Commission's Regulations and Regulation of Natural Gas Pipelines after Partial Wellhead Decontrol, 57 Fed. Reg. 13,267, 13,276 (Apr. 16, 1992) (subsequent history omitted) [hereinafter Order No. 636].

152. *Id.* at 13,269-70:

Simply put, efficiency in the now national gas market can be realized only when the purchasers of a commodity know, in a timely manner, the prices of the distinct elements associated with the full range of services needed to purchase and then deliver gas from the wellhead to the burnertip.

....

In brief, this rule requires pipelines to unbundle [i.e., separate] their sales service from their transportation services at an upstream point near the production area and to provide all transportation services on a basis that is equal in quality for all gas supplies....

153. FERC only applied the term "stranded" to the third category of costs, physical facilities made useless by the unbundling of transportation from other services. As employed in this Article, "stranded" denotes obligations or losses unrecoverable after deregulation, thus rendering all four categories of costs "stranded" by Order No. 636. *See id.* at 13,307.

buy-down and buy-out costs, the cost of facilities made unnecessary by unbundling, and the cost of new facilities like the meters and pipes required to unbundle.¹⁵⁴ Pipelines did not have to absorb any of these costs.

FERC agreed to let pipelines direct bill the two gas charges.¹⁵⁵ It did not explain why it gave pipelines a much more favorable treatment for their transportation/field service unbundling than, say, for uncoupling the transportation/merchant roles in Order No. 436, but its motivation may have been the belief that these new costs were slight. The Commission redefined Order No. 500 as if it had been a special case needed to "encourage pipelines to share some of the cost of the *extraordinary* take-or-pay liabilities of the early and mid-1980's."¹⁵⁶ In contrast, the Commission "does not anticipate that pipeline gas supply costs that are incurred as a result of implementing this rule will approach the order of magnitude of the take-or-pay liability of that era."¹⁵⁷ If that is the case, Order No. 636's stranded cost decisions should not be strong precedent for the "extraordinarily" large stranded costs in electricity.¹⁵⁸

The Commission's few casual remarks that Order No. 636's transition costs were not as extraordinary as those in the earlier gas restructuring offer little guidance: the Commission did not suggest how "extraordinary" should be defined. How big is too big? The emphasis on the insignificance of stranded costs under Order No. 636 is perilously close to an argument that the courts should turn a blind eye to a lack of principle because even an erroneous rule won't do much damage.

The Court of Appeals for the District of Columbia reversed the Commission's new treatment for these latest gas costs and asked, at a minimum, for a better explanation of the deviation.¹⁵⁹ The recently-

154. *See id.*

155. *See id.* at 13,307-08.

156. *Id.* at 13,308 (emphasis added).

157. *Id.*

158. Another reason for Order No. 636's deviation from the elaborate natural-gas precedent may be that most commentators appear to have supported full pass-through. *See id.* at 13,309. One does not have to accept the assertions of capture theory to believe that a lack of opposition to an industry position makes an agency much more likely to allow the relief. The deregulation orders were issued in a beleaguered atmosphere, with appeal a certainty and judicial hostility likely, so it would not be surprising if remedies that seemed uncontroversial would look particularly attractive.

FERC also protected the stranded facilities and new facility expenses. With almost no discussion, it stated that stranded costs from the breakup of bundled sales and the transition costs of new facilities would be recoverable like any prudently incurred costs. *See id.* at 13,307-09.

159. The court believed that the rationale for Order No. 500's cost sharing "substantially applie[d]" to Order No. 636 GSR costs. *See United Distrib. Cos. v. FERC*, 88 F.3d 1105, 1188 (D.C. Cir. 1996), *cert. denied*, 117 S. Ct. 1723 (1997). The petitioners had put it stronger, noting

issued Order No. 636-C reiterates FERC's determination to give pipelines full recovery for post-636 stranded gas costs. The Commission's declaration that the "opportunity to recover the full amount of their prudently incurred costs" is the "bedrock ratemaking principle"¹⁶⁰ emphasizes that it has adopted a new approach. In Order No. 500, of course, the "fundamental principle" was responsibility for overpriced gas contracts. FERC went out of its way in that Order to reject the view that pipelines have a right to recover costs that turn out to be very uneconomic, even if they had been prudently incurred.

In Order No. 500, when FERC held that "all segments" of the industry were to blame and should share take-or-pay costs, it avoided deciding the degree to which regulators were responsible for pipeline carelessness and inefficiency. In Order No. 636, FERC pretended that it did make this determination. Its new view of Order No. 500 is that pipelines had to bear some losses only because their gas-cost problem "was caused *more* by general market conditions [i.e., by pipelines' failure to predict where the market was going] than by any regulatory action."¹⁶¹ Order No. 636-C pretended that post-636 stranded costs were, in contrast, entirely products of regulatory action. Most take-or-pay costs had been resolved by the time of Order No. 636 (thus implying that the "market" problem had been resolved).¹⁶² Order No. 636 "upset this relatively stable situation and created a new jeopardy for the recovery of pipeline gas supply."¹⁶³ The Commission also distinguished Order No. 500 as a rule that addresses a problem "the Commission and the industry had never previously faced," a problem threatening "massive costs" and an "extraordinary nature."¹⁶⁴

No matter how FERC tries to reconcile Order No. 636-C with Order No. 500, it cannot bridge the gap between those two Orders. Whether courts in fact permit such a rewriting of history will depend

"the remarkable similarities between Order No. 636 GSR costs and Order No. 436 take-or-pay costs." *Id.* The court rejected FERC's argument that the Commission could pass through all GSR costs because they were so small, less than one-fifth the allocated take-or-pay costs. *See id.* at 1189.

160. Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation Under Part 284 of the Commissions Regulations, 78 F.E.R.C. ¶ 61,186, 61,787 (Feb. 27, 1997) [hereinafter Order No. 636-C].

161. *Id.* at 61,785 (emphasis added).

162. *See id.*

163. *Id.* at 61,786. FERC traced the new problem to several parts of Order No. 636. It blamed not just the Order's unbundling, but also its having made pipelines give up storage capacity and having forced downstream pipelines to unbundle, "resulting in the loss of the downstream pipelines as sales customers." *Id.*

164. *See id.* at 61,784. This sounds like a hint that FERC may now regret the innovative experiment of equitable sharing.

upon the range of discretion they cede to FERC. Are FERC's powers broad enough to let the Commission make an entirely contradictory balance of firm and consumer interests in nearly identical situations? It is certainly not true that prudent recovery is the sole or bedrock principle of ratemaking. As the Commission acknowledged in Order No. 528-A, prudence is but one of two screens traditionally applied to regulated costs. Even prudent costs are unrecoverable if the assets are not used and useful.¹⁶⁵ These are independent requisites for cost recovery.

More fundamentally, FERC decidedly did not say in Order No. 500 that cost-sharing was justified because take-or-pay costs were "caused more by general market conditions than by any regulatory action."¹⁶⁶ Both natural gas and electricity stranded cost problems exist only because of two related changes, one regulatory and one "economic." The regulatory cause is the removal of certain barriers, thus requiring regulated companies to compete. The market causes are managerial mistakes in long-term investment and planning.

In natural gas restructuring, FERC studiously avoided denying that regulation had contributed to the problem—it only noted that it had not prohibited recovery "by decree."¹⁶⁷ Take-or-pay costs were a problem because Order No. 380 voided minimum bills and Order No. 436 then required open access. No one involved in this process could believe that the transformation of the market facing pipelines was only market-caused.

Conversely, the Commission is just as wrong that Order No. 636's costs are stranded only because of regulatory changes. If pipelines had developed competitive sales, field, and transportation services while under regulation, they would recover their costs fully even after deregulation. A problem exists for exactly the same reason as for Order No. 500: the Commission removed regulatory protection that shielded uneconomic costs, *and* pipeline costs were so uneconomic that they could not survive competition without government subsidy. It was in this context that FERC criticized pipelines for ignoring the principle that it would not guarantee them "recovery of costs which market conditions would not otherwise permit," and that ratepayers should bear only "the legitimate costs," market-proven costs, of providing service.

In any event, Order No. 636 should not be good precedent for the utilities. The most obvious difference is that electricity's stranded

165. See *supra* note 143 and accompanying text.

166. Order No. 636-C, 78 F.E.R.C. at 61,785.

167. See Order No. 528-A, 54 F.E.R.C. at 61,303.

costs are not the small, unextraordinary creatures that FERC says it sees in the Order No. 636 transition. Second, Order No. 636 came after FERC already had made pipelines pay very large stranded costs, not just by voiding minimum bills and ending their capacity monopolies, but also by making them pay many take-or-pay costs. Even if FERC was right in Order No. 636 to allow full pass-through of *its* costs (at least, if prudent), the Commission already had given pipelines the lion's share of the transition losses. Third, though FERC reaffirmed its Order No. 636 reasoning in Order No. 636-C, the Order is on appeal again.

The unsettled status of these tail-end¹⁶⁸ natural gas issues should not divert attention from the main message of natural gas restructuring: cost responsibility should be the deciding principle in allocating the major stranded gas costs. To the extent that pipelines' failure to forecast "market conditions" produced their problems, the Commission made them pay the price even if they had been lulled, seduced, led, or coerced into their errors by the regulatory structure. The Commission rejected the idea of passing these inefficiencies on to customers, whether through minimum bills, closed access, or 100% recovery of prudent take-or-pay costs. Rewarding uncompetitive decisions would intolerably delay the move to competition and was not warranted when pipelines had overcommitted for gas supplies and were discriminating in their use of their space. FERC did not shield pipelines from marketplace competition. They were not treated as stakeholders in the regulatory fabric.

IV. THE EARLIEST ELECTRICITY STRANDED-COST RULES IGNORE COST RESPONSIBILITY

The structure, purpose, and rationale of electricity deregulation, with its diagnosis of a malaise that only competition can cure and the medicine of open access, has been drawn from FERC's lessons in the natural gas market.¹⁶⁹ In electricity as in gas, FERC found that regulated firms were imposing billions of dollars in welfare losses (compared to a competitive market), that this problem forced the Commission to act, and that the best remedy was to subject firms to market forces.

168. Tail-end, that is, unless the switch to market-based rates in mainline transportation produces a dramatic realignment of the transportation end of the business and strands the significant core mainline capacity of many pipelines.

169. See Donald Santa, Jr. & Clifford Sikora, *Open Access and Transition Costs: Will The Electric Industry Transition Track the Natural Gas Industry Restructuring?*, 15 ENERGY L.J. 273, 299-300 (1994) (discussing how FERC's initial steps under EPCRA "paralleled the steps" in Order Nos. 436 and 636, with criteria for nondiscriminatory access influenced by Order No. 636).

Nonetheless, in electricity, unlike natural gas, the Commission has rewarded rather than punished utilities for having power that costs more than customers want to pay. It has mandated full recovery of stranded costs and delayed the benefits of competition so that utilities may recoup the costs of the very assets that supposedly cause such a great welfare loss. In contrast to natural gas, FERC has not punished utilities even though it found that one of the major impediments to competition was the utilities' discrimination against new, cheaper electricity generators. This indulgence for electricity stranded costs is inconsistent with the responsibility that lies with electric companies for buying uncompetitive plant and contracts and for refusing to open their lines to new power.

California has taken a similar approach. It has strained to protect the three companies responsible for the very high cost of its power.

A. *Order No. 888 Rewards High Electricity Costs*

Order No. 888 creates an open access interstate transmission system through which competitively generated wholesale electricity can flow. Order No. 888's stated goal is "to remove impediments to competition in the wholesale bulk power marketplace and to bring more efficient, lower cost power to the Nation's electricity customers."¹⁷⁰ In general, federal electricity deregulation adopts the same institutional mechanisms used to restructure natural gas. FERC extended its natural-gas rules, as any organization might when faced with the uncertainty of a new environment, mimicking what it believes are successful innovations that it recently adopted in a similar situation.¹⁷¹

The Commission's rationale is identical to its Order No. 436 theory that open access will transmit competition from a producing market to consumers at the other end of a distribution system. The means to create competition are the same as in Order No. 436, too, "open access nondiscriminatory transmission tariffs."¹⁷² The underlying impetus to action is the same: inefficient investment decisions by regulated utilities and discriminatory denials of access against cheaper

170. Order No. 888, 61 Fed. Reg. at 21,541.

171. For an organizational theory offering various reasons why firms will tend to adopt similar or "isomorphic" organizational structures, see Paul Dimaggio & Walter Powell, *The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields* 64, in *THE NEW INSTITUTIONALISM IN ORGANIZATIONAL ANALYSIS* (Walter Powell & Paul Dimaggio eds., 1991). Energy restructuring fits this model with one change; rather than new firms adopting the rules and practices that seem to have worked for existing firms, here single agencies choose to expand new, apparently successful rules to additional industries. Uniformity persists because people copy rules that seem to work in social life.

172. Order No. 888, 61 Fed. Reg. at 21,540.

suppliers, in this case in the generation rather than gas purchase market:

We have identified a fundamental, generic problem in the electric industry: owners, controllers, and operators of monopoly transmission facilities that also own power generation facilities have the incentive to engage, and have engaged, in unduly discriminatory practices in the provision of transmission services by denying third parties transmission services that are comparable to the transmission services that they are providing, or are capable of providing, for their own power sales and purchases.¹⁷³

The Commission's authority to order open access to remedy the situation is the same, right down to its expressly relying on the same appellate decision that confirmed FERC's power to press interstate pipelines to become open access.¹⁷⁴

The early pages of Order No. 888 detail the inefficiencies that FERC attributes to regulated electricity. Electric utilities and their customers coexisted comfortably into the Sixties because the economies of scale in big plants lowered costs and prices.¹⁷⁵ With prices falling, there seemed to be little reason to worry about efficiency and competition. When utilities expanded into nuclear and other large-scale plants in the Seventies and early Eighties, however, they made the several mistakes described in Part I of this Article. One, they assumed continuous increases in demand. Demand did not keep rising, so much new capacity was not needed.¹⁷⁶ Two, they did not protect themselves against sharp cost increases, and interest rates, inflation, and bad planning sharply raised the costs of building plants.¹⁷⁷ Three, they misread technology. Bigger plants turned out

173. *Id.* at 21,566; *see also id.* at 21,560, 21,567. The quoted language treats only the problem of discrimination; for a treatment of the separate problem that utilities seemed unlikely to make competitive investment decisions, *see infra* note 180 and accompanying text.

174. *See* Order No. 888, 61 Fed. Reg. at 21,560-61 (discussing AGD I).

175. *See id.* at 21,543 & n.6. The Commission added technological improvements and "moderate" increases in input prices as contributing factors. *See id.*; *see also* Bernard S. Black & Richard U. Pierce, Jr., *The Choice Between Markets and Central Planning in Regulating the United States Electricity Industry*, 93 COLUM. L. REV. 1339, 1344 (1993) (noting that regulatory structure was accepted into late Sixties because "the real price of electric power declined steadily because of a constant stream of technological advances"). The real price declines did not mean, of course, that regulated power was efficient in any real sense during this period, only that the prices did not pinch. Electric companies may have been generating power at costs well above their production possibilities frontier. Consumers showed little interest in regulatory issues into the Sixties because real prices still were falling. *See* PAUL JOSKOW & RICHARD SCHMALENSEE, *MARKETS FOR POWER: AN ANALYSIS OF ELECTRIC UTILITY DEREGULATION* 5 (1983); Alfred Kahn, *Can Regulation and Competition Coexist? Solutions to the Stranded Cost Problem and Other Conundra*, 7 ELEC. J. 23 (1994) ("I can't believe we would be witnessing the changes we are witnessing today if the industry had been able to continue the performance of the '50s and '60s, when the average price of electricity in the United States dropped over 40% in real terms.").

176. *See* Order No. 888, 61 Fed. Reg. at 21,543 & nn.12-13.

177. *See id.* at 21,543-44. The planning for nuclear plants, for instance, turned out to be

to be more costly in operation; their downtime and maintenance raised costs, and under new technologies, 50 to 150 megawatt plants wound up cheaper than 500 megawatt plants.¹⁷⁸ Many of today's most expensive plants are nuclear plants built with very large overruns; between 1985 and 1992, utilities had to write off at least \$22.4 billion in nuclear plant investment.¹⁷⁹

Even with the adjustments already made for nuclear plants, FERC found that the national electric industry maintains facilities and supply contracts that cost far too much. Customers captive to older plants may be paying two to three times as much as necessary for their power.

The Commission had to deregulate wholesale interstate electricity because it believed that regulated utilities not only acted uncompetitively in the past, but that they would not behave competitively in the future if regulated. This is why FERC found, looking forward, that it had become "increasingly clear that the potential consumer benefits that could be derived from . . . technological advances could be realized only if more efficient generating plants could obtain access to the regional transmission grids."¹⁸⁰ Regulated utilities will not adopt the most efficient technologies voluntarily.

Current performance is so inefficient that the Commission believes opening interstate transmission systems to competition can save consumers between \$3.8 and \$5.4 billion a year.¹⁸¹ Innovation and a better use of existing assets should bring more gains,¹⁸² and these are but a small part of the savings that would accrue from state retail deregulation.

Electricity open-access naturally will create large losses. Customers shifting to new firms have to abandon their traditional suppliers.

wildly inept, with overruns of as much as 1000%. See Pierce, *supra* note 60, at 504. As with virtually every other kind of stranded cost, here too there are wide differences of opinion on whether the companies or regulators are to blame for the problem.

178. See Order No. 888, 61 Fed. Reg. at 21,543-44.

179. See *id.* at 21,544 & n.19. The EEI estimates the write-off during the Eighties at \$16 billion. See EEI COMMENTS, *supra* note 23, at 12-13. The problems with nuclear plants were extraordinary. Some plants overran budgets by a factor of ten. See Black & Pierce, *supra* note 175, at 1346. The total disallowance ended up being roughly 30% of all nuclear plant costs. See *id.*

180. Order No. 888, 61 Fed. Reg. at 21,546.

181. See *id.* at 21,541, 21,550. One of the most interesting aspects of deregulation is how little utilities have fought the conclusion that electricity can be generated much more cheaply than regulated companies have accomplished in recent years. The EEI's economic experts admitted bluntly that, with open competition, "many utilities would be unable to recover a large fraction of the costs associated with these power supply commitments." EEI ECONOMISTS' REPORT, *supra* note 36, at 1; see also Kahn, *supra* note 175, at 3 (arguing that, without careful deregulation, "some electric utilities may end up like the airlines, which lost more money in three years than the industry had made in its entire history").

182. See Order No. 888, 61 Fed. Reg. at 21,541, 21,550.

FERC has decided to let utilities recover the resulting stranded costs (measured by the "revenues lost") from each departing customer. Order No. 888 made the recovery of "legitimate, prudent and verifiable stranded costs" a purpose coequal to achieving open, nondiscriminatory access.¹⁸³ In words that pipelines longed to hear, the Order emphasized utilities' reliance on the regulatory scheme (as well as society's need for solvent utilities) in making their now-unwanted investments. FERC decided that stranded cost recovery is "critical to the successful transition of the electric industry to a competitive, open access environment."¹⁸⁴

Order No. 888 uses contract rights to protect utilities from their losses. It grafts a right to recover stranded costs onto all wholesale requirements contracts signed before the open-access rulemaking notice, as long as the contracts are silent about stranded costs.¹⁸⁵ For these contracts, utilities can file to recover the revenues lost from each departing customer.¹⁸⁶ To earn this protection, an electric company will have to show that it had a "reasonable expectation" of continuing to serve the customer.¹⁸⁷ The Commission in essence has improved (from the utility's perspective) the rate bargain in these

183. See *id.* at 21,540.

184. *Id.* at 21,630.

185. Utilities with wholesale requirements contracts dated before July 11, 1994 (the date of FERC's electricity open access NOPR) whose contracts reimbursed stranded costs will recover by the contract terms. Those whose contracts prohibit recovery will not recover. See *id.* at 21,639-44, 21,664. Contracts after this date will have to have an express recovery provision for any costs to be imposed on the departing customer. See *id.* at 21,638-39.

186. Presumably it will be the rare cost that an electric company cannot "verify." This leaves the requirements that costs be "legitimate" and "prudent" (and whether these two words might intend separate standards). The Commission refused to "make a blanket assumption that all claimed stranded costs will have been prudently incurred." *Id.* at 21,664. Nonetheless, it seems unlikely that the Commission will allow much battle over prudence. It reassured utilities that "we do not intend to relitigate the prudence of costs previously recovered." *Id.*

In spite of FERC's use of the word "recovered," as if it was just following the filed-rate doctrine, its assurance and general standards for stranded costs make it unlikely that it will relitigate the prudence of costs allowed in the ratebase, even if not yet "recovered." Finally, given the strong assurances of stranded cost recovery in Order No. 888, it is hard to imagine that the Commission would find any costs that otherwise satisfy the Order still are not "legitimate."

187. See *id.* at 21,630. This restriction should not be overemphasized; Order No. 888 did not decide what to do with utilities that could not show a "reasonable expectation" of continuing service, so these costs too may end up being recoverable from at least some customers. See *id.* at 21,653-54. On the other hand, this standard suggests a lot of litigation over at least two of its aspects. First, was there a reasonable expectation at all—does the utility have a right to an Order No. 888 recovery? Second, if so, how long does the expectation last? The duration of expectations will be another fertile field for litigation.

Although FERC has welcomed stranded cost recovery generically and has indicated that it will not relitigate already-decided prudence questions, the "reasonable expectation" standard will allow one kind of prudence litigation. The issue will be the prudence of a utility's expectation of continuing to serve a departing customer, however, not the cost prudence of the plant it built to do so.

contracts.¹⁸⁸

The Commission has tried to claim jurisdiction to apply similar rules to costs stranded by retail-turned-wholesale customers.¹⁸⁹ In addition, though it generally will not allocate costs stranded by retail wheeling, the Commission says that it will do so whenever a state commission does not have authority over stranded retail costs.¹⁹⁰

Although there are limits to Order No. 888's recovery mechanism—for instance, it will not apply if a utility loses a customer to self-generation, co-generation, or by switching to a competitor without using open access¹⁹¹—the Order will protect utilities' major capital investments in interstate electricity supply. This high level of protection is underlined by the Commission's assurance that it will not let customers relitigate the prudence of costs already "recovered."¹⁹² FERC's eagerness to defend financial "integrity" also will not be satis-

188. For a persistent attack upon Order No. 888 as an abrogation of contracts (an attack that proved ineffective for pipelines in gas restructuring), see Request for Rehearing of the Vermont Department of Public Service 35-38 (May 24, 1996).

189. See Order No. 888, 61 Fed. Reg. at 21,644-46.

190. See *id.* at 21,647-51. Both this and FERC's assertion of jurisdiction over retail-turned-wholesale customers—decisions that would expand the Commission's exercise of power within the industry—are sure to spark vehement appeals by the states, in spite of pro forma professions of a desire to work with the Commission. Otherwise, the Commission will have effectively used changes in the electricity market brought about in large part by its own orders to expand the services under its jurisdiction. Although deregulation generally is not consistent with the model of an agency single-mindedly seeking to expand its power, if that was the Commission's concern its restructuring would look like an extraordinarily indirect and clever way to manipulate its jurisdiction.

For characteristic state responses, see COMMENTS OF THE NAT'L ASS'N OF REGULATORY UTIL. COMM'RS 16-25 (Dec. 9, 1994) [hereinafter NARUC COMMENTS]; COMMENTS OF THE PUB. UTILS. COMM'N OF THE STATE OF CAL. 6 (Aug. 3, 1995) ("FERC is employing a legal fiction in asserting that the availability of open access wholesale tariffs converts the character of the stranded costs of the generation built to serve retail customers and other retail costs such as purchased power and regulatory assets from 'retail' to 'wholesale.'").

The federal/state relation over retail costs may become the most important question for the long-term direction of electricity deregulation, but it is beyond the scope of this Article. The issue is beginning to come up in a different forum with proposed federal legislation that would, in essence, graft the principles of Order No. 888's wholesale open access onto intrastate retail electricity. See *supra* note 51 and accompanying text. As for FERC's own stab at imperialism, one whose legality almost certainly will end up being decided by the courts, it is amusing to note that FERC tried to justify its power grab as "based on a policy decision by this Commission that it will step in to fill a regulatory 'gap' that could result in no effective forum." Order No. 888-A, 62 Fed. Reg. at 12,375. This may be the worst justification FERC could offer. It certainly is true that its claim of retail jurisdiction rests more on policy than on law, and it is true that statutes like the Federal Power Act and Natural Gas Act were passed in good part because Congress wanted to "plug" a gap within state regulation that had been opened by certain Supreme Court decisions, but the strongest objections to this expanded FERC power are *jurisdictional*, not policy, arguments. A fair reading and likely criticism of the Commission's retail designs is that it is trying to act as a master social planner and correct apparent irrationalities in the regulatory scheme without regard to jurisdiction. This "policy decision" passage is sure to be featured prominently in the briefs of critics.

191. See Order No. 888, 61 Fed. Reg. at 21,630.

192. See *id.* at 21,664; Order No. 888-A, 62 Fed. Reg. at 12,391.

fied unless the Order protects a number of costs that otherwise would be at risk. Electricity customers will end up paying for assets they do not want to use because much cheaper power is available.

In Order No. 888-A, the Commission tried to defend its failure to require equitable sharing, under which utilities would pay for some of their uneconomic plant and contracts, by arguing, *inter alia*, that it has protected very few costs. It pointed to the many options to bypass systems by self-generation, cogeneration, and the like;¹⁹³ to the fact that some prudence review remains fair game;¹⁹⁴ and to the risks created by the "reasonable expectations"¹⁹⁵ test. It insisted that "[a]llowing full recovery of stranded costs under Order No. 888 is not equivalent to allowing 100 percent recovery of the costs of all uneconomic assets."¹⁹⁶

These palliatives seem very much beside the point. Order No. 888 must assume that most stranded costs will pass the prudence test. Most either are already "recovered," in which case the Commission will not relitigate prudence, or fall into a category of costs that have been partially recovered. It is hard to imagine the Commission ruling that a category of costs substantially recovered in the past must be unrecoverable in the future. This decision in effect immunizes that category of costs. The Commission has not disallowed costs stranded by other means, like self-generation; these costs may be recoverable too, just not through the exit fee.¹⁹⁷ And Order No. 888 makes its "reasonable expectations" test most utility-friendly by suggesting that an exclusive service area, with a mandatory obligation to serve all customers, will satisfy the test "easily."¹⁹⁸

193. See Order No. 888-A, 62 Fed. Reg. at 12,374, 12,381-82, 12,391.

194. See *id.* at 12,391.

195. See *id.* at 12,374, 12,378 (insisting that Order No. 888 offers only an "opportunity," not a "guarantee," of cost recovery, and claiming that the reasonable expectations test imposes a "heavy burden" on electric companies).

196. *Id.* at 12,391. In one page of Order No. 888-A, FERC claimed three major limits on cost recovery. First, as mentioned in the text, the order does not cover losses from self-generation and other customer exits that do not rely on Order No. 888. Second, the Order only applies to pre-July 11, 1994 wholesale requirements contracts—and then only if they do not already have a stranded-cost mechanism—plus to some retail-turned-wholesale costs. Third, electric companies must satisfy the reasonable expectations test. See *id.* at 12,374.

197. See *id.* at 12,382. The fact that Order No. 888 does not pass such costs along "does not mean that the Commission may not, in appropriate circumstances, permit their recovery through traditional ratemaking means." *Id.* FERC will address such costs on a "case-by-case basis" and look at "many factors," including "whether the utility is selling at cost-based or market-based rates and the transitional period to more competitive bulk power markets." *Id.*

198. Order No. 888, 61 Fed. Reg. at 21,651 & n.772. The NRRI has counted 23 states that make "specific service area assignments under territorial exclusivity statutes," and 38 that mandate that utilities serve all customers. See ROSE, *supra* note 3, at 41. This decision is counterbalanced, but only in part, by FERC's decision that notice-of-termination clauses will create a rebuttable presumption of no reasonable expectation. See *infra* note 530 and accompanying text.

Order Nos. 888 and 888-A remain overwhelmingly utility-friendly. If these Orders did not protect most stranded costs, they would defeat the Commission's stated concerns about utility financial integrity.¹⁹⁹ They grant utilities a windfall by eliminating responsibility for excessive costs as a factor in the pass-through decision. Thus, the factor that caused the turn to deregulation has been shunted off the stage before the stranded-cost recovery ritual is enacted.

One structural difference between the natural gas and electricity industries suggests that Order No. 888 may have less immediate impact on electricity than Order No. 436 had on natural gas. The electricity industry is much more integrated than its natural gas counterpart.²⁰⁰ Utilities have tended to build their own generation facilities

One of the interesting tests will be what the Commission does when it faces a utility that had a guaranteed service area, but signed contracts with notice of termination clauses. Here, as elsewhere, the test is supposed to be "factual," so the answer may be, "almost anything."

199. See *infra* Part V.B (discussing utilities' financial integrity).

200. See Pierce, *supra* note 7, at 337-38, 342-49 (discussing integration as characteristic distinguishing electricity from natural gas); see also Santa & Sikora, *supra* note 169, at 279 (discussing industry structures).

It is interesting how little the Commission has made of the integrated structure of the industry. Natural gas was a heavily integrated industry, too. Though there were many independent producers, pipelines handled everything from the wellhead forward in a structure that today looks quite inefficient. Vertical integration may be the result of government franchise, as it is an easy way for the regulator and regulated alike to make sure that jurisdictional companies hold the reins to the industry. It is more economic to regulate an integrated industry. Some economists have come to believe that firms only integrate ("making," rather than "buying," products and services) if they find it more efficient to do so. This is a simplification of Oliver Williamson's transactions cost economics. See, e.g., OLIVER WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM* (1985) (building on Ronald Coase's *The Nature of the Firm*, 4 *ECONOMICA* 386 (1937), reprinted in RONALD COASE, *THE FIRM, THE MARKET, AND THE LAW* 33-55 (1988)).

The first question one might ask an economist is, why would integration persist if it is not efficient? Or, if integration is common, in what way does it serve efficiency? EEI's economists opine that "complementarities between generation and transmission [are] the primary reason[s] [that], until recently, those two functions have been performed by single, vertically integrated entities in virtually every electric power system in the world." EEI ECONOMISTS' REPORT, *supra* note 36, at 7. These economists also warn that deregulation may sacrifice the benefits of this integration unless it is handled very carefully. See *id.* at 27-29.

If utilities reap economies from integration, forcing them apart (as in natural gas unbundling) may raise costs and lower efficiency. See Jeffrey Leitzinger, *Why Deregulate Electric Utilities?*, Address at the National Association of Regulatory Utility Commissioners, at 4, 12 (Nov. 1995) (on file with author) (asserting that there are "plenty of reasons to believe that there exist significant economies of scope and coordination in operating generation in T&D as an integrated activity"). Leitzinger also notes that "economies associated with the integration of delivery and commodity services are significant." *Id.* at 12. See generally Kahn, *supra* note 175, at 9 ("I know of no way of weighing the social benefits of competition against the benefits in principle of centralized responsibility for reliability of supply, coordination of investments and operations and wholehearted cooperation, such as occurs in power pools, among non-competing, geographically separated, vertically integrated franchised monopolies."). It is sobering to recall that little more than a decade ago, Paul Joskow and Richard Schmalensee were warning that it "would be wrong to assume" that generation, transmission, and distribution "segments" of electric companies "can be operated independently from one another, by separate firms coordinating their activities using only the price system, without any loss in economic efficiency." JOSKOW & SCHMALENSEE, *supra* note 175, at 25. This very complex topic encompasses

nearby. Thus the major electricity stranded cost issues will belong to state commissions.²⁰¹ In natural gas, on the other hand, even when

"economies of scale of individual products, economies of scope (economies of multiproduct production) across different products, and economies associated with vertical integration." *Id.* at 28. "[V]ertical and horizontal disintegration may increase the competitiveness of wholesale markets, [but] significant costs may thus be associated with any such restructuring." *Id.* at 214. Moreover, in a reminder for a time when overly large generating plants are such a problem, Joskow and Schmalensee observed that the industry was filled with too many *small* companies (for an economist's taste, at least), so that "there are too many separate utilities that are too small to realize all economies of scale and coordination internally." *See id.* at 83. Plants were being built "of less than optimal scale," *see id.* at 85, and mergers among small utilities "should be encouraged," *see id.* at 219. This need for horizontal scale is different from the current quest for vertical unbundling. Assuming that too many generating plants are indeed too small, relaxation of government controls combined with the vitality of market forces should produce a series of mergers designed to capture scale economies in generation. As with the other unanswered questions about deregulation, we will have to wait and see.

For an interesting, related argument that there is little efficiency gain in most horizontal electricity mergers, but that gains may be realized by mergers that offer vertical integration, see generally Raymond Hartman, *The Efficiency Effects of Electric Utility Mergers: Lessons From Statistical Cost Analysis*, 17 ENERGY L.J. 425 (1996).

201. *See* EEI COMMENTS, *supra* note 23, at 6. With the bias that predictably invades rulemaking, electric companies pressed FERC to assume jurisdiction over as many retail costs as possible. Many of their comments were written using a code that urged the Commission to adopt "backstop" jurisdiction. *See id.*; *see also* SUPPLEMENTAL COMMENTS OF PAC. GAS & ELEC. 2 (Feb. 16, 1996).

Electric companies cannot come out and say what they really want from the Commission, which is to step into their fight and force state commissions to give at least as favorable a treatment to intrastate stranded costs as the one the Commission has designed for interstate costs. Instead, euphemisms abound. *See, e.g.*, COMMENTS OF PAC. GAS & ELEC. 14 (Aug. 4, 1995) (calling for "consistency" between state and federal treatments); COMMENTS OF S. CAL. EDISON CO. 9 (Dec. 9, 1994) (asking FERC to make sure states have "effective standards" for their recovery mechanisms); *see also* THIERER, *supra* note 3, at 8 (calling for "minimal" regulation to prevent "bad actor" states from impeding flow of interstate commerce); *id.* at 29-30 (urging FERC to assert jurisdiction to prevent states from "hinder[ing] interstate commerce" by "favor[ing] incumbent producers"). The argument is stretched when made by groups that traditionally urge states' rights in hopes of reducing federal intervention, but here urge Congress to assume a very broad power over an area (retail electricity) traditionally left to states in the belief that Congress will use this power to reimburse their stranded costs. *See* ADAM THIERER, HERITAGE FOUNDATION REPORT, ELECTRICITY DEREGULATION AND FEDERALISM: HOW CONGRESS AND THE STATES CAN WORK TOGETHER TO DEREGULATE SUCCESSFULLY 22 (1997) (straining to reconcile federalism with federal standards for electricity deregulation, including stranded cost recovery).

Of course, the companies are eager to have FERC dictate the terms of stranded cost recovery only because the Commission had decided to let them recover their costs. Had the Commission instead used Order No. 888 to select a sharing mechanism that fell heavily on utilities, or made utilities absorb the full costs, the same companies would be protesting that the Commission cannot possibly have jurisdiction over any part of the traditionally state retail costs. Given Order No. 888's favorable language, backstop jurisdiction really means that the states would be free to decide the treatment of stranded costs only as long as the result is at least as favorable as Order No. 888.

It was just as predictable that electric companies would favor no limit on the duration of the recovery period, a running reassessment of stranded costs until all have been recovered, the widest possible presumption that a service franchise conclusively proves a "reasonable expectation" of serving a customer, with virtually no weight given to contract notice provisions, and so forth. Or that they would urge reliance on the regulatory compact as justification for 100% cost recovery without addressing the extent to which stranded costs result from their own mistakes and gaming the system. This does not mean that other interest groups were less partisan, just that the Commission should not expect much help from the parties it polices.

pipelines offered the "bundled" service of delivered gas, the gas generally came from other states. For that reason, FERC's deregulation of interstate electricity will reform a smaller part of that industry than its open access orders did in natural gas.²⁰²

Even though its reform in electricity is on a smaller scale than that in natural gas, the Commission's actions will have an important effect on the larger industry. The path the Commission cleared in natural gas has been very influential, and its steps in electricity will be similarly followed. To name but the most important example, FERC's NOPR on open access spurred California to institute its restructuring.²⁰³ Order No. 888 has the potential for even greater mischief if it becomes the basis for a federal retail bill.

B. California Indulged its Electric Companies

California, the leader in state deregulation, has taken a similarly deferential view of stranded costs. One reason California's example is important is that, with Pacific Gas and Electric Company ("PG&E") and Southern California Edison Company ("SoCal") within its borders, it has two of the utilities with the largest stranded costs in the country.²⁰⁴ The state is one of the most important markets for electricity: it consumes roughly 15% of the country's electricity, second only to Texas.²⁰⁵

202. See *supra* note 27 and accompanying text.

203. See CPUC, ORDER INSTITUTING RULEMAKING AND ORDER INSTITUTING INVESTIGATION 37 (Apr. 20, 1994) [hereinafter CPUC ORDER INSTITUTING RULEMAKING] (stating that "[t]he reforms enacted by Congress in 1992 took the first important steps to fulfill that promise" of a competitive market).

In Order No. 888, FERC listed twelve states that had retail wheeling legislation or pilot programs "underway" after FERC issued its open-access notice of rulemaking. See 61 Fed. Reg. at 21,550 n.101. Fourteen other states were investigating retail wheeling in early 1996, and 47 public utilities had filed open access tariffs. See *id.* By the end of 1996, almost all states had begun some kind of preliminary investigation into restructuring. See EIA UPDATE, *supra* note 10, at 67.

204. See *id.* at 80-81.

205. EIA, ELECTRIC POWER MONTHLY tbl. 47 (June 1997) (in 1997, California consumed 51,693 million kilowatt hours of electricity, Texas 64,073 million, Ohio 40,642 million, Pennsylvania 33,109 million, and New York 32,902 million). Texas' consumption (in light of its smaller population) can presumably be explained in large part by the concentration of the nation's refining industry, a major center for self-generation, along the Texas Gulf Coast. Interestingly, the rankings do not mirror either population or gross state product perfectly. For instance, California far outstrips Texas in population (31.6 million to 18.7 million); New York has nearly as many people as Texas with 18.1 million; and Florida and then Pennsylvania follow these states. At present, Ohio is not in the top five states in population. See BUREAU OF THE CENSUS, STATISTICAL ABSTRACT OF THE UNITED STATES 1996, tbl. 27 (Resident Population) (1996). In output, California was again the leader, but New York had a larger gross state product than Texas, Illinois was number four, and Florida and Pennsylvania were higher than Ohio. See *id.* tbl. 689 (Gross State Product). Not surprisingly, given California's status as the retail front-runner, many states "appear to be waiting to see how successful California will be at overcoming the numerous contractual, organizational, and logistical issues that remain." White,

California's electric market faces many difficulties, in particular because its electricity costs are higher than most other states. In 1993, CPUC staff found that the state's average cost of electricity was roughly 50% above the national average.²⁰⁶ As CPUC Chairman Gregory Conlon has admitted, the state restructured "not out of desire, but of necessity."²⁰⁷ According to the utilities, one reason for their high costs is that the CPUC left them with too many public interest responsibilities, all of which cost money.²⁰⁸ There seems little dispute that the CPUC got heavily involved in standards for power generation. California became a "leader in energy conservation" two decades ago.²⁰⁹ It was, in its staff's words, "aggressive" in pushing its QF program.²¹⁰ The CPUC also pushed demand-side management heavily.²¹¹

An obvious alternative cause for such expensive power is that the three large companies that supply most of California's power have dominated the regulatory process and used it poorly. The finding that regulation "blunted" efficiency makes sense only if the CPUC believed that the state's large utilities fundamentally failed in their duty to provide low-cost power.

California's experiment got fully underway with a deregulation order issued on December 20, 1995.²¹² The Order followed several years of staff work, hearings, comments by major stakeholders, and some legislative guidance. It included a promise that utilities would recover all of their stranded costs.

The CPUC said that it had to act because rates were just too high. "Our debates have revealed the broadest consensus that our rates are too high" ²¹³ "Despite their many differences, stakeholders overwhelmingly agreed on one thing—the Commission must fundamen-

supra note 4, at 210.

206. CPUC DEREGULATION ORDER, *supra* note 27, at 83, 192.

207. CPUC Chairman Gregory Conlon, Address at ABA Annual Convention (S.F. Aug. 5, 1997).

208. See SoCal et al., Memorandum of Understanding, in Rulemaking Proceeding R-94-04-031 and Investigation I.94-04-032, at 10 (Sept. 18, 1995) (urging recovery of all prudent "past investments and obligations made to fulfill its historical obligation to serve"). SoCal describes agency-fostered investments as including general power contracts, QF contracts, regulatory assets and decommissioning. See *id.*; see also EIA REPORT, *supra* note 15, at 7 (estimate of avoided cost upon which California QF prices rest "was originally quite high because of the high oil and gas prices paid by electric utilities in the late 1970's and early 1980's"); cf. EEI ECONOMISTS' REPORT, *supra* note 36, at 12 ("[E]specially in states in the Northeast and in California, these planning processes forced utilities to purchase power at prices higher than they would otherwise have had to pay.")

209. See YELLOW REPORT, *supra* note 14, at 46.

210. See *id.* at 50, 66.

211. See *id.* at 71-72, 90-91.

212. See CPUC DEREGULATION ORDER, *supra* note 27.

213. *Id.* at 6; see also *id.* at 110.

tally reform California's regulatory policy governing investor-owned utilities."²¹⁴ This conclusion mirrored FERC's singling out California for having very expensive power in Order No. 888.²¹⁵

The Commission seemed reluctant to publicize *why* California has such high electricity costs. The deregulation Order reads as if everyone agrees that there is a serious problem with California's regulated electricity industry, but no one wants to say what it is. The Order does not specifically discuss the inefficiencies of the CPUC's jurisdictional generating plants and supply contracts, or any reason why California's electric costs have been so high. This may not be surprising: any explanation would have to include a discussion of how such a great problem could have developed on its watch.

The CPUC did note at a few points that monopoly power had to be restricted, and it justified the new Independent System Operator ("ISO") as an antidote to discrimination. Thus the Commission did suggest, though *sotto voce*, that utility discrimination against new, cheaper generation was one cause of the state's abnormally high electricity costs.²¹⁶

If discrimination is one problem, careless investment decisions

214. *Id.* app. B, at 3.

215. See Order No. 888, 61 Fed. Reg. at 21,550 (noting that cost of electricity varies from 3 to 5 cents in the Northwest to 9 to 11 cents in California); cf. EIA UPDATE, *supra* note 10, at 67 (including California among states whose high electricity cost had provided "compelling reasons to promote competition"). See generally *supra* notes 19, 52-53 and accompanying text.

216. See CPU DEREGULATION ORDER, *supra* note 27, at 189 (noting that the ISO "lessens the potential for owners of the transmission system to favor their own generation facilities over nonutility facilities." Unlike FERC, however, the Commission did not expressly find that such discrimination had occurred. It issued another finding that the "abuse of market power reduces the societal efficiencies of competition." *Id.* at 192. Yet it discusses the problem of market power without directly finding that utilities abused that power. The CPUC decided that divestiture is the only remedy that can counter the utility's "ability" to engage in cross-subsidization but again without saying that this had occurred. See *id.* at 193. It endorsed the broad conclusion of law that "[w]e cannot have a fully competitive market for generation unless and until we eliminate any significant lingering ability of the monopoly utility to distort prices or restrict competition in the new competitive market." *Id.* at 208. Here, too, though, the CPUC implied that anticompetitive utility practices are part of the problem without making any finding of when, where, and how these practices had occurred. Hunting through the CPUC Order for the true reasons why regulation did not work in California could turn into a popular parlor game, for there are hints here and there, coy little statements, but never a clear statement. The CPUC order seems to be so diffused with the joy of "getting-to-yes" that perhaps the Commission felt there was no need to explain the reasons that deregulation arose in the first place.

It cannot be said that FERC's Order No. 888 is much more candid about the severity of the problems that led to deregulation, but at least FERC stated clearly that discrimination had and would continue to occur and that, in its view, allowing new entrants was necessary for generators to build the most efficient plant. The CPUC order and its companion, AB 1890, operate much more mysteriously as they embark on a major industry restructuring because of wildly inefficient utility decisions, which created a cost differential they repeatedly recite in their findings about high costs, but without once discussing the facts that would suggest that utilities were to blame in such large part.

must be another. After reciting how California's costs are 50% above national averages, the CPUC noted that "[o]verall, the existence of an incentive, such as shareholders' financial rewards and penalties, could encourage utility managers to do a better job."²¹⁷ Managers can only do a better job, of course, if they have been doing poorly. This language seems to concede that utility investing decisions were not as efficient as they should have been. Like the Commission's language about discrimination, however, so too this reference to inefficiencies is strangely muted. The CPUC never worked this fundamental point into its treatment of stranded costs.

Whatever it may lack in depth of consideration, the CPUC more than made up by enthusiasm for reform. It embraced competition eagerly: "Competition in the electricity market will deliver desirable market characteristics that have not been delivered by the regulated market regime of the past."²¹⁸ To create competition, the CPUC ordered sweeping changes in California's power industry. First, the operational control (though not ownership) of the transmission grid will go to an independent entity, one not controlled by any electric company, the ISO.²¹⁹ The ISO will "coordinate the daily scheduling"²²⁰ and be responsible for the "dispatch and delivery of power over the transmission system."²²¹

Second, another new organization, the Power Exchange, will run a continuous state-wide auction for the lowest priced power.²²² All utilities will have to sell their power into this pool during the transition years.²²³ The separation of utilities from their own generation will be enforced by the rule that they cannot buy power directly from their own facilities during the transition, though they may end up using

217. See *id.* at 83.

218. *Id.* at 192. This is the optimistic view. California's two major consumer groups, Utility Reform Network ("TURN") and Utility Consumers' Action Network ("UCAN"), asked FERC to block approval of restructuring because the large utilities will be able to dominate the new market. See Protest of TURN and UCAN, FERC Docket Nos. EC96-19-003, ER96-1663-003 I (June 5, 1997) (asking Commission not to approve applications to form ISO and PX unless substantial alterations to market structure and protocol were made).

219. See CPUC DEREGULATION ORDER, *supra* note 27, at 11 (discussing ISO).

220. *Id.* at 15.

221. *Id.* at 25, 32 (ISO has responsibility to preserve reliability and achieve low costs).

222. See *id.* at 12.

223. See *id.* at 51. In the Commission's words:

On the day it begins to function the Power Exchange will be the market institution in which all generators are able to compete on the basis of short run incremental electricity costs in an open setting and on what is literally a level playing field. Equally important, all buyers of electric energy will derive basic consumer protection in their ability to freely monitor the results of that competition

Id. at 54. The Power Exchange "will function as a clearinghouse by providing a transparent market for generation with hourly or half-hourly price signals evident to immediate users and long-term investors." *Id.* at 47.

their own power if their affiliates submit the lowest-priced bid to the Power Exchange.²²⁴ Both the Power Exchange and the ISO were to be in operation by January 1, 1998, a date slightly extended, so this structural revolution has already begun.²²⁵

Third, rates for the two functions that the CPUC believes will remain natural monopolies, distribution and transmission, will be shifted from cost-of-service to a performance basis. In a decision that puts the CPUC ahead of FERC, the California Commission decided that "[e]xisting cost-of-service regulation has become too complex and difficult in many ways to allow us to regulate the utilities properly in this fast-moving industry."²²⁶ Its solution is a rate "measured against established benchmarks."²²⁷

These changes will unbundle generation, distribution, and transmission. With the ISO, utilities will continue to own transmission assets, but they will no longer operate them.²²⁸ In a nutshell, the system should work as follows:

Utilities will continue to control and operate their distribution system, to own and operate their generation assets (subject to some incentive for divestiture), and to procure generation services for their energy service customers. They will also continue to own, but not operate, their transmission facilities.²²⁹

As an added precaution to ensure more competition in generating, the major utilities will be forced to divest at least half of their fossil-fuel generating plants.²³⁰ SoCal has filed plans to sell all of its nonnuclear plants;²³¹ PG&E will sell four plants that comprise half of its fossil-fuel generating²³² and reportedly intends to sell more.²³³

Functionally, these changes are intended to produce a competitive, state-wide power pool with new companies entering the generating

224. See *id.* at 208.

225. See *id.* at 218-28.

226. *Id.* at 82.

227. *Id.* One can add the definition of these not-established benchmarks to the list of issues that are likely to engender a great deal of litigation.

228. See *id.* at 93.

229. *Id.* at 207.

230. See *id.* at 100-01.

231. See SOCAL APPLICATION FOR AUTHORITY TO SELL GAS-FIRED ELECTRICAL GENERATION FACILITIES, EXECUTIVE SUMMARY 2 (Nov. 27, 1996). SoCal's application covers 12 plants in Southern California, see *id.* at 1, but not SoCal's two coal generating units, see *id.* at 2.

232. See PG&E APPLICATION FOR AUTHORIZATION TO SELL CERTAIN GENERATING PLANTS AND RELATED ASSETS PURSUANT TO PUBLIC UTILITIES CODE SECTION 851 at 1, 5 (Nov. 15, 1996) (proposing divestiture of four plants that comprise half of PG&E's fossil fuel generation).

233. See Jonathon Marshall, *PG&E Decides to Sell 4 More Power Plants*, S.F. CHRON., June 25, 1997, at B2 (reporting PG&E plan to sell plants in Antioch, Pittsburg, San Francisco and regions of Lake and Sonoma counties in preparation for competitive electricity market).

market.²³⁴ It is this competition on which the CPUC is banking to escape California's high-cost electricity. With the Commission now moving into retail unbundling, competition should make itself felt all the way to the end consumer in the form of lower costs.

California's restructuring followed an unusual path. After an initial proposal and a series of public hearings, the CPUC invited major parties to submit joint position papers. SoCal and some like-minded groups filed a Memorandum of Understanding in September 1995;²³⁵ certain large consumer and environmental groups responded the following month;²³⁶ and some major customer groups submitted their own statement a few days later.²³⁷ When the CPUC ordered deregulation in December, it had a very precise idea of the areas of agreement among the major players. The process let the CPUC know how

234. See Sheila Hollis & Stephen Teichler, *Collision or Coexistence?: The FERC, the CPUC and Electricity Restructuring*, PUB. UTIL. FORT., Oct. 1, 1995, at 2. Though the overall goal of injecting competition as far as possible into the electric industry is the same, deep differences exist between FERC's approach and that proposed by CPUC. As Sheila Hollis and Stephen Teichler have stated:

The FERC invites buyers to shop for generation; the CPUC majority would have generators competing among themselves for the right to serve a single aggregate market.

....

The CPUC would measure stranded costs on an asset basis—comparing book values to market values in a competitive environment. . . . The FERC prefers a "revenues lost" approach that compares the revenue a utility reasonably expected to receive from a given customer against the price the utility could command for that power on the open market.

....

For cost recovery the CPUC would bill all current retail consumers through a "competitive transition cost" (CTC) surcharge. But the FERC would assign stranded costs individually to certain departing customers (those without notice provisions in their contracts).

Id. at 2. As California moves into retail deregulation, the difference between buyer and generation choice will disappear. In addition, FERC has rested recovery on the "reasonable expectations" standard that is irrelevant under the CPUC's mechanism—in effect, the CPUC is assuming that the State's utilities had a reasonable expectation of recovering all stranded costs, at least to the extent that such costs are not extinguished by the positive asset value of competitive fossil-fuel plant. See *id.* at 1-2.

Both approaches carry a heavy pro-recovery assumption, but one cannot be sure which will turn out to be more favorable until both commissions show how they will apply their rules. No one knows where the balance will fall between competitive and uncompetitive fossil-fuel assets for California's utilities, or the kind of prices the Power Exchange will produce; on the other hand, we have yet to see how stringent FERC's "reasonable expectations" test will be in practice. Nor do we know how seriously either Commission will apply its mitigation requirement. The CPUC's 10% reduction in return on equity also must be factored into any study of comparative impact. What is clear is that both approaches are more utility-friendly than equitable sharing.

235. See SoCal et al., Memorandum of Understanding, *supra* note 208, at 1 (identifying parties to MOU as SoCal, California Manufacturers Association, Independent Energy Producers, and Californians for Competitive Electricity).

236. See UTILITIES CONSUMER ACTION NETWORK, FRAMEWORK FOR RESTRUCTURING IN THE PUBLIC INTEREST 15 (1995).

237. See CUSTOMER STATEMENT OF PRINCIPLES (1995) (on file with the author).

to structure deregulation in order to minimize challenges. To a large degree, its Order tracks proposals that emerged in the comment process.²³⁸

In addition, the CPUC acted under unusual legislative scrutiny. When the stock prices of the state's utilities plunged in 1994 after the CPUC's notice of restructuring,²³⁹ the legislature expressed concern that the CPUC had not "developed a sufficient factual record" for deregulation.²⁴⁰ The legislature ordered the Commission *not* to issue any "interim, final, or effective order" until it held more hearings and, among other things, quantified transition costs and their allocation among shareholders and ratepayers.²⁴¹ The CPUC thus conceived deregulation under great pressure to ensure that the state's utilities were protected financially.

In its restructuring of December 20, 1995, the CPUC rewarded utilities by putting the highest possible value on their financial health.²⁴² This favoritism may be an inducement, and reward, for their general willingness to not oppose deregulation. One goal of the Commission's initial notice of rulemaking was to "exploit alternatives to litigation as much as possible."²⁴³ The goal was supported by the Commission's assertion that "the litigious, adversarial environment of the hearing room [i.e., ordinary administrative process] is ill-

238. It cannot be said that the CPUC rubber-stamped any side's recommendations. The Commission gave the utilities almost everything they wanted on stranded costs, and endorsed the idea of an ISO, but it rejected utility suggestions that access to a power pool should occur through direct access and voluntary choice, rather than through the compulsory structure of the Power Exchange. See CPUC DEREGULATION ORDER, *supra* note 27, at 29. Commissioner Knight dissented in part to urge that direct access should coexist with a voluntary, not mandatory, power pool. See *id.* at 3 (Jessie J. Knight, Jr., Commissioner, dissenting). In terms of stranded costs, at least one major player, the CPUC's internal Division of Ratepayer Advocates (DRA), opposed full stranded-cost recovery, but their concerns did not prevail. See DRA COMMENTS ON THE HEARINGS CONCERNING POTENTIAL UNECONOMIC COSTS IN ELECTRIC RESTRUCTURING 2 (1995) (full recovery will not meet Commission's goal of reducing electric costs); see also DRA BRIEF ON LEGAL ISSUES CONCERNING ELECTRIC RESTRUCTURING ISSUES 5 (1995) ("Utility shareholders have already been compensated for the competitive risk that changes in market conditions may make a once prudent investment uneconomic.").

239. See SOCAL RESPONSE TO ORDER INSTITUTING RULEMAKING AND ORDER INSTITUTING INVESTIGATION, EXECUTIVE SUMMARY 3 (1994) ("In the two weeks following the Commission's issuance of the Blue Book proposal, the value of California utility investors' holdings fell by more than \$2.3 billion."). The share value of California's three investor-owned utilities fell from \$30 billion to \$18 billion, a drop of 40% in the six months after the CPUC announced its plan to deregulate. See White, *supra* note 4, at 209.

240. Assembly Concurrent Resolution No. 143, at 2 (Sept. 15, 1994), reprinted in CPUC DEREGULATION ORDER, *supra* note 27, app. D, at 2.

241. *Id.* at 3.

242. See, e.g., CPUC DEREGULATION ORDER, *supra* note 27, at 3-4 ("To assure the continued financial integrity of California's investor owned and financial utilities, and give them an opportunity to be vital participants in the restructured market following the transition, we will allow them to recover 100 percent of the CTC.").

243. CPUC ORDER INSTITUTING RULEMAKING, *supra* note 203, at 7.

sued to policy development."²⁴⁴ This is an interesting position for an agency that, like other agencies, supposedly has special expertise to create policy in hearing rooms.

Utilities' litigation forbearance came with a very high price, if it is what encouraged the CPUC to endorse full cost recovery.²⁴⁵ The CPUC allowed 100% recovery of stranded (or "transition") costs in a nonbypassable "Competitive Transition Charge" ("CTC").²⁴⁶ Two principles seem to explain this treatment of stranded costs: (1) a decision to protect utilities' reliance on the regulatory scheme;²⁴⁷ and (2) a great concern with their financial integrity.²⁴⁸

The CPUC attempted to satisfy customers and competition when it asserted that the principles of its transition cost treatment benefit ratepayers, "at least to some degree," and penalize shareholders by providing a lower recovery than under traditional regulation.²⁴⁹ These reassurances sound like CPUC damage control, however, rather than any evidence that the agency engaged in balanced decisionmaking. Given the actual terms of cost recovery, it is unlikely that ratepayer interests and shareholder responsibility played a serious role in the stranded cost deliberations.

The Commission identified two adjustments that allegedly put some burden on shareholders. First, it reduced the rate of return allowed on investment-related equity by 10 percent.²⁵⁰ Second, the Commission permitted recovery on fossil-fuel plant costs only after computing the net asset value of uneconomic plants against other plants.²⁵¹ For instance, if PG&E has both fossil-fuel plants that are worth more than their book value and others that are worth less because they are stranded by competition, PG&E will recover only to

244. *Id.* at 7-8.

245. If it was cooperation that gained California's utilities their stranded cost treatment, then the California experience suggests that natural gas pipelines would have been far better off to work with FERC in 1984 and 1985 by suggesting radical deregulation measures, but holding out for full recovery for their stranded costs as the price of their support.

246. *See* CPUC DEREGULATION ORDER, *supra* note 27, at 3 (intending CTC that is "neutral, fair to various classes of ratepayers, and does not increase rates beyond the revenue requirements").

247. *See infra* notes 333-35 and accompanying text.

248. *See infra* notes 452-55 and accompanying text.

249. *See* CPUC DEREGULATION ORDER, *supra* note 27, at 121.

250. *See id.* at 123 (explaining that there should be return for debt component equal to utility's embedded cost of debt); *id.* at 209 ("The principles that ratepayers should benefit from our treatment of transition costs and that utilities should have proper incentives can be accommodated in a recovery mechanism that reduces the return on investment-related transition costs."); *id.* at 211 (describing "90% of the embedded cost of debt as a reasonable rate of return" on the equity portion of fossil fuel generation assets).

251. *See id.* at 114 (stating that it would be unfair to require customers to pay for high-cost generation without benefiting from low-cost generation and netting assets as method of compensating ratepayers).

the extent that its poorly performing facilities overwhelm its smart investment decisions.²⁵²

Neither of these conditions should give consumers or competition much comfort. The Commission admitted that stranded costs are assets that would not earn a return in a competitive market.²⁵³ In fact, if truly unused, the utility should not recoup its principal. Furthermore, it is hardly a punishment to shave a mere 10% off the return on facilities that the market would idle at great loss. If California's costs are so high because its utilities have not responded to proper incentives and, in addition, have discriminated against cheaper power, these are not assets that would have been treated favorably even had regulation continued. If the investments were disallowed, they would not be balanced against other, smarter investments.

The net asset balance, where applicable, may be less favorable for utilities than Order No. 888's lost-revenue measure, but the mechanism has limited reach. The calculation will not affect the major category of loss, QF contract obligations, nor will it include nuclear decommissioning costs. California's utilities should have large *net* losses. One recent study concludes that the state's two largest utilities have the third and fourth largest stranded costs in the country, totaling roughly \$16 billion dollars.²⁵⁴

One of the many problems with California's cost protection is that, like the FERC, the CPUC has inserted a remedy without defining the scope of the problem. The utilities persuaded the Commission to let them measure assets on a "market-based" scale,²⁵⁵ rather than on an "administrative" basis.²⁵⁶ An administrative basis would have required the companies to submit a single claim for their expected loss,

252. See PG&E COMPETITION TRANSITION CHARGE 3-9 (1996) [hereinafter PG&E TRANSITION CHARGE] (prepared statement of Richard A. Weingarten) (discussing PG&E's sunk-cost assets in relation to fossil generation). The Commission added a third protection for consumers by putting a cap on current rates after inflation has been considered. See CPUC DEREGULATION ORDER, *supra* note 27, at 142. The mandated reduction of rates in AB 1890, however, moots this provision.

253. See CPUC DEREGULATION ORDER, *supra* note 27, at 113 (competitive market will classify assets as economic or uneconomic).

254. In RDI's February 7, 1997, report, SoCal and PG&E ranked third and fourth in the list of private utility stranded costs. See RDI REPORT, *supra* note 24, tbl. "Investor Owned Utilities with the Highest Stranded Investment" (listing SoCal's stranded investment at \$8,330,110,000 and PG&E's at \$7,834,815,000). PG&E has now filed estimates ranging from \$8.4 billion to \$14.1 billion, with its mid-range number being \$11.4 billion. See PG&E TRANSITION CHARGE, *supra* note 252, at E-2.

255. See SOCAL TRANSITION COST POLICY 5 (1996) [hereinafter TRANSITION COST POLICY] (observing that CPUC opted for "market-based" approach to transition costs, which calculates costs retroactively by measuring the difference with evolving power prices).

256. See *id.* (quoting D. 95-12-063, as modified by D. 96-01-009, [mimeo], at 19, that an "administrative" approach "requires long-term forecasts of market prices and assumptions about existing and future QF obligations, discount rates, capacity factors, and other variables").

thereby creating a binding estimate of the needed subsidy.²⁵⁷ The market-based scale, on the other hand, allows the companies to return each year for more relief.²⁵⁸ The numbers will be immense: SoCal asked the Commission to recognize \$3.5 billion in stranded costs for 1998 alone.²⁵⁹ The utility projects a "transition cost revenue requirement" of \$11.2 billion from 1998 to 2001, and an additional \$10.8 billion before 2030.²⁶⁰ PG&E has calculated its 1998 exposure at \$3.4 billion, and its total costs at \$11.4 billion.²⁶¹ Most parties (including the utilities) believe that California's stranded costs are likely to total roughly \$28 billion.²⁶²

AB 1890,²⁶³ the deregulation bill passed by the California legislature on August 31, 1996,²⁶⁴ will exacerbate the damage caused by the CPUC's stranded cost provision. Some legislation was necessary to clarify the CPUC's authority, so some parts of the bill are just enabling clauses, but the bill adds new terms as well, including rate reductions and a fixed period for stranded cost recovery.²⁶⁵ In a prime

257. *See id.* SoCal claimed that the rate freeze has made it "not necessary to develop comprehensive estimates of future transition costs for ratemaking purposes." SOCIAL COST RECOVERY PLAN 5 (1996). Similarly, PG&E concluded that the overall cost recovery structure does not require "up-front" estimates of the value of its generation assets because the CTC component of rates is determined residually. *See* PG&E COST RECOVERY PLAN 13 (1996) [hereinafter PG&E COST RECOVERY PLAN].

258. The great advantage of this approach for utilities is that, assuming that their total stranded cost number is going to be very large, they do not have to apply for it all at once. By the time they file for their third or fourth year of recovery, the principles that will control the outcome—principles that are very favorable to these companies—already will be enshrined as precedent. Critics will have less support to challenge stranded costs early on because the true amount of the wealth transfer will be obscured by the lack of an overall estimate of total cost recovery.

The CPUC since has required the utilities to estimate their total transition-cost exposure, but this requirement is empty because the estimates are not binding. The estimates are not likely to constrain the utilities. *See* SOCIAL TRANSITION COST POLICY, *supra* note 255, at 4 (losses on generation, power contracts and nuclear power plants cannot be known until respective market prices are known).

259. *See id.* at 1 (estimating 1998 "transition cost revenue requirement" at \$3.5 billion, with \$1.620 billion from QF contracts, \$1.350 billion for nuclear costs, and \$340 million for fossil-fuel costs).

260. *See* SOCIAL FUTURE TRANSITION COST ESTIMATES 8 & tbl. II-1 (1996) (providing estimates for years 1998-2030). Even when assumptions vary about plant valuation, SoCal's numbers remain almost the same. *See id.* at 19.

261. *See* PG&E TRANSITION CHARGE, *supra* note 252, at Ex-3. PG&E's total actually ranges from \$8.4 billion to \$14.1 billion, depending upon market prices over the recovery period. *See id.* at 1-15.

262. *See, e.g., Enron Drops Home Market*, S.F. EXAM., Apr. 23, 1998, at B3.

263. CAL. PUB. UTIL. CODE § 330 (West Supp. 1997), as amended by stats. 1986, c. 854 (AB 1890, § 10).

264. *Id.*

265. In a fair summary of AB 1890, SoCal describes AB 1890's "primary impact" on transition cost recovery as follows:

[It] changes the schedule for recovery, mandates a rate freeze for all customers coupled with a rate reduction for some customers, creates a new means, other than CTC, to recover transition costs through the Rate Reduction Bonds, and creates a fire wall

example of what can go wrong when politics is mixed with economics, the bill passed unanimously.

AB 1890 confirms the CPUC's two major innovations, the ISO to operate transmission grids and the Power Exchange to form the state-wide auctioning pool for power.²⁶⁶ The legislature heartily endorsed the idea of moving to a competitive market.²⁶⁷ To make sure that competition is transmitted to end consumers, billing will be unbundled.²⁶⁸ The CPUC has encouraged companies to install meters to support innovative billing structures,²⁶⁹ and it plans an aggressive education program to encourage consumers to take advantage of the wider range of choices.²⁷⁰

In one major change, the legislature extended a rate ceiling imposed by the CPUC to include an at-least-10% rate reduction for

between certain classes of customers to protect them from cost shifting.

SOCAL TRANSITION COST POLICY, *supra* note 255, at 9 (citations omitted).

266. See CAL. PUB. UTIL. CODE § 333(1)(1) (stating that "competition will best be introduced by the creation of an Independent System Operator and an Independent Power Exchange").

267. See *id.* § 330(d)-(e).

[T]he interests of ratepayers and the state as a whole will be best served by moving from the regulatory framework existing January 1, 1997, in which retail electricity is provided principally by electrical corporations subject to an obligation to provide ultimate consumers in exclusive service territories with reliable electric service at regulated rates, to a framework under which competition would be allowed in the supply of electric power and all customers would be allowed to have the right to choose their supplier of electric power. . . .

(e) Competition in the electric generation market will encourage innovation, efficiency, and better service from all market participants, and will permit the reduction of costly regulatory oversight.

Id.; see also *id.* § 330(1)(2) ("Generation of electricity should be open to competition and utility generation should be transitioned from regulated status to unregulated status through means of commission-approved market valuation mechanisms.").

268. The CPUC ordered the three main utilities to separate their transmission and distribution in Order D.96-10-074. See generally Interim Opinion on Public Purpose Programs, Dec. R.94-04-031, I.94-04-032 (1996). AB 1890 requires each utility to unbundle by filing a "cost recovery" plan that "provide[s] for identification and separation of individual rate components such as charges for energy, transmission, distribution, public benefit programs, and recovery of uneconomic costs." CAL. PUB. UTIL. CODE § 368(b). The purpose of unbundling is to let customers who buy power from other suppliers make sure that they pay no more for the services they still purchase from the old suppliers than customers who stay with their original, formerly regulated company. See *id.*

269. The CPUC decided not to require new meters from current utilities. See Opinion on the Unbundling of Revenue Cycle Services, Dec. No. 97-05-039 at 5 (1997). This Order requires utilities to enter agreements so that any supplier will be able to send customers a consolidated bill. See *id.* at 8. Customers will not be penalized for choosing a new supplier by finding that they have to pay multiple bills, a problem that has bedeviled telephone deregulation. These measures in turn responded to a "concern that direct access opportunities to residential and small commercial customers in 1998 might be severely limited if we fail to allow energy providers to provide" billing, metering, and related services. See *id.* at 8.

270. See *id.* at 29 ("Consumer education and consumer protection rules are necessary regardless of the Commission's policy on unbundling."). The CPUC has authorized spending \$89 million on consumer education in the first ten months of full competition. See Conlon, *supra* note 207.

residential and small commercial customers.²⁷¹ In so doing, it ignored one of the major messages of deregulation champions: that it is a mistake for central planners to try to dictate market factors like costs and prices.²⁷² Market advocates are right to point out that mandating specific economic terms is a lapse into reregulation.²⁷³

AB 1890 requires a *minimum* rate reduction, from June 10, 1996 rates, of 10% for residential and small commercial customers,²⁷⁴ and states an "intent" to achieve an overall reduction for those groups of at least 20%.²⁷⁵ The savings are to continue from 1998 until the earlier of March 31, 2002, or when all "generation-related" stranded costs have been recovered.²⁷⁶ With the bill listing California's total annual spending on electricity at \$23 billion, AB 1890 expects to produce almost \$5 billion in savings, per year.²⁷⁷

The legislature did not identify the source of these savings. Nor did it show that the savings actually can be achieved. Instead AB 1890 creates a fudging mechanism. The state will loan utilities billions to cover transition costs and rate reduction through the California Infrastructure and Economic Development Bank.²⁷⁸ The bonds will enable the legislature, which endorsed ISOs and the Power Exchange

271. *But see* SoCal Application for Financing Order Authorizing the Issuance of Rate Reduction Bonds and 10 Percent Rate Reduction Effective January 1, 1998, App. No. 97-05-018, Exec. Summary, at 2 (1997) [hereinafter SoCal Rate Reduction Application] (claiming that ten percent rate reduction is "contingent" upon issuance of Rate Reduction Bonds); *see also id.* at 6 (\$2.6 billion in bonds "will be sufficient to provide the revenue requirement reduction savings necessary for the 10 percent rate reduction"); SDG&E Application for Authority to Finance a 10% Rate Reduction Through the Issuance of Rate Reduction Bonds, at 2 (1997) [hereinafter SDG&E Rate Reduction Application] (asserting that 10 percent reduction is contingent upon issuance of Rate Reduction Bonds). PG&E says that the bonds arose "[i]n recognition that residential and small commercial customers do not have the financial leverage and ability individually to finance the payment of their transition cost obligations in a cost effective manner through access to capital markets." PG&E COST RECOVERY PLAN, *supra* note 257, at 2.

272. *See infra* note 301 and accompanying text.

273. *See* CRANDALL & ELLIG, *supra* note 3, at 5 ("Legislators and regulators should resist the temptation to elaborately plan either the structure of markets or the transition process."). It is fair to add that market advocates often fail to distinguish pro-competitive regulation that maintains the conditions for competition from rules (like California's mandated rate reduction) that spit into the wind of economic realities, a very different matter.

274. *See* CAL. PUB. UTIL. CODE § 330(w) (West Supp. 1997).

275. *See id.* § 330(a). The savings to be realized depends upon whether rate reductions for industrial customers at least match the mandatory percentages for residential and small commercial customers. Virtually all commenters assume, however, that industrial users will be able to better the benefits extracted by residential and small commercial users because of their greater sophistication and resources. Some of this advantage may reflect large customers' ability to buy power on an interruptible basis, with its lower costs. *See* CRANDALL & ELLIG, *supra* note 3, at 11 (pointing to interruptible power as reason large gas customers secured greater rate reductions from gas deregulation).

276. *See* CAL. PUB. UTIL. CODE § 368(a).

277. At least, this will be the result if California achieves the 20% reduction that the legislature identified as the "intent" of its electricity deregulation.

278. *See* CAL. PUB. UTIL. CODE § 841.

due to the great savings they will produce, to fabricate the savings (in the short run) if competition does not work. In a state with mandatory term limits, the bonds will shift the risk that deregulation will not work onto other politicians' watch. Bond-supported lower rates will make today's politicians look good while they are in office; the real test will occur under their successors.²⁷⁹

The bonds will take their place in the growing securitization market (which will be swamped by stranded-cost bonds if many states follow California's lead). The utilities will create new subsidiaries, corporately shielded from the risk of utility bankruptcy, and will transfer the right to customer payments to these corporations. They in turn will assign their rights to the California Infrastructure Bank, which will issue bonds secured by the stream of payments from future electricity bills. Neither the utilities nor the state will stand behind the bonds—in essence, customers as a group will be responsible for each other's default.²⁸⁰ The high security of utility bill payments should permit very low interest rates.

California's three major utilities have filed requests for \$7.3 billion in rate reduction bonds so far.²⁸¹ Although the utilities claim that they have included a margin so that these funds should be more than enough, California's decision to require only annual stranded-cost applications leaves room for the companies to come back for more.

Although the state will not be liable for the rate reduction bonds,

279. And so the State that gave birth to Ronald Reagan's political career seems to have enacted another borrow-now, pay-later statute. It can be argued that Reagan's budgets worked only if lower taxes spurred extraordinary growth; likewise, California's lower rates and stranded cost recovery will work only if deregulation spurs great savings through existing utility plants (so that stranded costs are minimized).

280. See SoCal Rate Reduction Application, *supra* note 271, at 7-10 (describing bond structure); see also PG&E Rate Reduction Bond Financing (1997) [hereinafter PG&E Rate Reduction Financing] (providing overview of proposed financing transaction); SDG&E Rate Application, *supra* note 271, at 5-6 (explaining bond structure). If other states adopt the same procedures, electric-bill secured bonds will quickly become the largest player in the burgeoning securitization market. See PG&E Rate Reduction Bond Financing, *supra*, tbl. 4A.

For a brief description of this market, which currently focuses on credit card obligations, home equity loans, and automobile loans, see *id.* at 4-1 to 4-14. For an attack on securitization as giving utilities an irrevocable, up-front payment for costs that would have been uncertain even under regulation, see generally IPALCO ENTERS., INC., A WHITE PAPER, THE SECURITIZATION SWINDLE (May 1997).

281. See SoCal Rate Reduction Application, *supra* note 271, at 1 (seeking "up to" \$3 billion in Rate Reduction Bonds); PG&E Rate Reduction Application, at 1 (1997) (seeking "up to" \$3.5 billion dollars in Rate Reduction Bonds); SDG&E Rate Reduction Application, *supra* note 271, at 17 (seeking up to \$800 million in rate reduction bonds).

Stranded costs may have a very long life. Although fossil-fuel generation assets have to be recovered by December 31, 2001, see CAL. PUB. UTIL. CODE § 367(a), this limit does not include "power purchase contract obligations," the major category of stranded costs for the big utilities, which shall "continue for the duration of the contract," *id.* § 367(a)(2), or nuclear decommissioning costs, see *id.* § 379.

the borrowing exploits state power to borrow against the future for current rate reductions. The purpose of deregulation should be to generate real cost savings, simply not to reallocate unyielding costs across time by clever financing. If competition produces very large savings, utilities will be able to keep their rates at least 10% below their last regulated rates, and at the same time repay their bonds. But if competition does not have much effect or, worse, if unbundling produces diseconomies because vertically integrated companies have been dismantled, then prices will shoot up as soon as the rate caps expire. Consumers who changed their consumption patterns in the interim will have received exactly the wrong signals. PG&E already has announced that it wants a \$700 million rate increase to take effect once the mandated reductions expire.²⁸²

A mandated rate reduction could be worthwhile as a tax extracted from monopoly suppliers—as a forced guarantee from utilities of savings from competition—but it becomes a much riskier venture when rates fall by shifting costs into the future through state-supported bonds. Moreover, the mandated reduction lasts only until March 2002 or until a utility recovers all of its generation-related losses, whichever comes sooner.²⁸³ In contrast, recovery for the largest category of loss, that from QF contracts, can extend for the life of the contracts.²⁸⁴ Thus the rate caps will expire long before stranded-cost recovery is over. If competition produces great savings over time, the bonds may facilitate a smoother rate reduction. But if savings do not materialize, the temporary reduction will be a short-lived artifice.

It would have been far wiser to let competition set prices from the beginning of deregulation. To the extent that the legislature suspects that current costs are inflated, those costs should have been disallowed. Instead, the combination of full cost recovery and rates lowered through bonding blesses uneconomic costs, all in return for the mere hope that competition will more than offset this sacrifice.

In keeping with the solicitude the legislature shows for rate reduction bonds, AB 1890 endorses full stranded cost recovery. With their optimistic expectations of savings, one would think that California's legislators would have been particularly mindful of the need to pre-

282. See Jonathan Marshall, *PG&E Will Seek Big Rate Hikes*, S.F. CHRON., Sept. 16, 1997, at C1. Given the full recovery of stranded costs, it seems quite likely that "[t]he summary effect of regulatory reform in California to date, and probably well past 2002, is essentially zero for consumers and potential entrants." White, *supra* note 4, at 245. Residential and small commercial consumers will enjoy their short-lived ten percent mandated rate reduction, but they will end up repaying even these savings once rates are uncapped.

283. See CAL. PUB. UTIL. CODE § 367(5).

284. See *id.* § 367(2).

vent utilities from billing the cost of no-longer-useful facilities. Their continued funding of anticompetitive obligations is inconsistent with switching to a competitive market, and these old obligations are blockages to competition. For great savings to be extracted in a short time, it is particularly important to free consumers from costly older plant and supply contracts.

Unfortunately, California's legislature exculpated the state's utilities even though their poor investments inflated electricity bills. Taking the lead from the CPUC, AB 1890 stresses utility reliance: "Consistent with federal and state policies, California electrical corporations invested in power plants and entered into contractual obligations in order to provide reliable electrical service on a nondiscriminatory basis to all consumers within their service territories who requested service."²⁸⁵ Against this background, AB 1890 concludes:

It is proper to allow electrical corporations *an opportunity* to continue to recover, over a reasonable transition period, those costs and categories of costs for generation-related assets and obligations, including costs associated with any subsequent renegotiation or buyout of existing generation-related contracts, that the commission, prior to December 20, 1995, had authorized for collection in rates *and that may not be recoverable in market prices in a competitive generation market.*²⁸⁶

The Legislature even classified worker hardships and retraining as transition costs, thus mollifying another major political group but raising the costs of transition and delaying its impact still more.²⁸⁷

AB 1890 says it just allows utilities an "opportunity"²⁸⁸ to recover transition costs, but it does much more. It *guarantees* recovery by letting utilities bill these costs in the fixed, "nonbypassable CTC," rather than simply adding them to a variable rate that would have to compete with power from new, competitive electricity suppliers. Thus it is no surprise to find the major utilities citing the law as a significant change that guarantees their stranded costs.²⁸⁹

285. *Id.* § 330(p).

286. *Id.* § 330(s) (emphasis added). The bill continues by stating that utilities are entitled to recover additional costs deemed reasonable and necessary to maintain existing facilities through December 31, 2001). *See id.* In addition, with transition funded by bonds, the legislature magnanimously added that the transition would "provide the investors in these electrical corporations with a fair opportunity to fully recover the costs associated with commission approved generation-related assets and obligations." *Id.* § 330(t).

287. *See id.* §§ 330(u), 375 (noting the hardships that electrical restructuring will cause for employees and including compensation in transition costs).

288. *See id.* § 330(s) ("It is proper to allow electrical corporations a fair opportunity to recover . . . costs for generation-related assets and obligations . . .").

289. *See* SOCAL TRANSITION COST POLICY, *supra* note 255, at 2 ("Recovery of transition costs, consistent with AB 1890, is now a matter of law.").

AB 1890 does create one small risk by limiting the period for recovering some stranded costs. Once the Commission identifies non-recoverable costs, the costs pertaining to fossil-fuel plants "shall be recovered from all customers on a nonbypassable basis" by December 31, 2001.²⁹⁰ However, the uneconomic portion of power supply contracts, the largest part of California's stranded costs, can be recovered over the life of those contracts.²⁹¹ The same goes for nuclear decommissioning costs.²⁹² There is no sign that California's utilities will fall short of full recovery because of the limited recovery period for fossil-fuel plant losses.²⁹³

Room does remain for some penalties. For instance, the CPUC might take a very aggressive position on the costs it thinks that PG&E, SoCal, and SDG&E can recover at "market prices in a competitive generation market."²⁹⁴ If the CPUC treats a lot of costs that are not really competitive as recoverable, thereby minimizing its recognition of transition costs, utilities may find that the Commission has created billions of dollars in losses.²⁹⁵

An agency that has been so yielding to utility companies thus far, however, is unlikely to reverse course and hold them to stringent proof in hearings over stranded costs. No doubt the hearings will be full of strong-sounding language that ratepayers must benefit and shareholders must pay some stranded costs. Nevertheless, utilities are likely to recover virtually all of their losses. The CPUC's strictures against litigation in its April 1994 Order Instituting Rulemaking and Investigation suggest that it has no stomach for protracted battle.²⁹⁶ The CPUC is likely to stick to the decision it already has made: Utilities will be bailed out for power that is roughly half again as costly as national electricity and is costing ratepayers nearly \$5 billion extra a year, one fifth of their total bill.

Like Order No. 888 and the CPUC's restructuring, AB 1890 con-

290. See CAL. PUB. UTIL. CODE § 367.

291. See *id.* § 367(a)(2).

292. See *id.* § 379.

293. To help ensure that all costs are recovered, AB 1890 removed the existing cap on annual recovery of nuclear power plant costs. See *id.* § 368(d).

In a June 12, 1997, order on applications for transition costs, the CPUC—although noting that AB 1890 does not make transition costs wholly without risk—stated its belief that "[t]ransition cost recovery is now mandated by law and there is no reason to assume that the frozen rates will not result in sufficient headroom to fully recover transition costs." Decision 97-06-060, at 33, 41 (June 12, 1997).

294. CAL. PUB. UTIL. CODE § 367.

295. If AB 1890's judicial review provision is enforceable, it may heighten the risk of large stranded costs. The legislature made the Commission's determination of the amount of stranded generation assets "final," so that it "may not be rescinded, altered or amended." *Id.* § 367(b).

296. See *supra* notes 243-44 and accompanying text.

tradicts the principles FERC developed in the natural gas deregulation orders and flies in the face of the general logic of deregulation. Consumers will bear the costs of facilities they cannot use, so they may as well ignore new suppliers. If consumers have to pay stranded costs anyway, they may as well use inefficient, older power sources because the price of those facilities often will be cheaper than paying for their stranded costs *plus* new generation.²⁹⁷ Second, utilities that built inefficient plants will be rewarded for decisions that competitive markets would punish. Utilities will be free to use their CTC subsidy to undercut power from new generating capacity and in the process will undermine new companies.²⁹⁸

The CPUC's decision to shield stranded assets does not fit the thrust of deregulation any more than similar arguments justify Order No. 888. The problems that motivated California's deregulation were not that utilities had service obligations and relied on a regulatory franchise. California's deregulation arose because utilities built uneconomic plants and entered into uneconomic supply contracts. Utilities did not respond to the risk that these great capital commitments might prove unwise. If utilities had focused on smaller scale, non-nuclear facilities, California would have much less need for deregulation. In addition, the utilities tried to block cheaper power.²⁹⁹ Neither the fact of regulation nor the obligation to serve necessitated uneconomic plants and uneconomic supply contracts. Yet this welfare-minimizing behavior is the reason the CPUC finds itself restruc-

297. See Teichler, *supra* note 71, at 7 (utilities could impose a stranded-cost penalty high enough to force customers to remain). In addition, utilities may subsidize one operation via stranded costs from another. See *id.* at 5-6 (power companies can beat competitor's prices for large industrial users and compensate by taking the difference from residential customers who cannot afford to seek power elsewhere).

One way to see this risk is to look at the world that will face the departing customer, particularly with an exit fee as in the Order No. 888 model. Having to pay for unused capacity will create a tremendous barrier against leaving. Another possibility is utility cost-shifting that uses stranded costs to subsidize other operations. If utilities can foist costs that should fit into ordinary rates into stranded costs, they can price their other power below its actual cost. See *id.* at 7.

The disincentive to leave older power sources exists for customers as a group in California. In one funny illustration of the problem of collective action, the use of a CTC not linked to individual customers breaks the direct tie between a customer's power decision and the choice of suppliers. Put another way, the marginal contribution to the CTC that any given customer will experience by staying or leaving may be too small to be felt. But the uncompetitiveness of full recovery will be experienced in another way, because the billions of dollars recovered will give the incumbents the money to stave off entrants, if they choose to use their stranded cost bonds to keep their own rates artificially low.

298. See *id.* at 6.

299. See Order 888, 61 Fed. Reg. at 21,702-04 (listing allegations of utilities that were "exercising transmission dominance"). Among the Order's examples were claims that PG&E used dilatory tactics and effectively refused to deal, see *id.* at 21,704, and that SoCal and SDG&E refused to supply power to various cities and curtailed cities from buying cheaper power. See *id.* at 21,704-05.

turing the state's electricity markets.

A fair examination of the process through which California's utilities built today's facilities would unearth significant formal and informal CPUC involvement in what now are clearly investment mistakes. This is the view of many participants in the electricity deregulation debate.³⁰⁰ If this view is correct and if losses should be allocated by responsibility, then the CPUC could have allowed the related *part* of stranded costs into each company's ratebase. Such regulatory complicity does not, however, justify allowing a *full* recovery that protects all of these costs (even if with a minor shave on certain returns on equity and fossil-fuel asset balancing) without regard to utility responsibility.

What is missing in California's stranded cost treatment, as in Order No. 888, is an incorporation of the responsibility that utilities, as private companies with control over the type of plant they build, should bear for their own mistakes. Big, inefficient generating plants were not an inevitable result of regulation; nor were all unwanted supply contracts forced on unwilling power companies by regulators. This is supported by the fact that California's costs are half again as much as the national average, and well over the costs in its neighboring states.³⁰¹ Nor was discrimination against competitive generation,

300. See Black & Pierce, *supra* note 175, at 1341 (state commissions and legislatures bear much blame for uneconomic power contracts and excesses in environmental regulation); Pierce, *supra* note 60, at 523-24, 530 (surveying the varying degrees of state commission authority over nuclear plant investments).

301. Some part of these high costs may well be due, as regulatory compact advocates argue, to California's having a more extensive set of noneconomic obligations for its utilities. The electric companies certainly believe this argument.

Many [stakeholders] argued that . . . the contracts utilities signed with qualifying facilities over the past decade as part of this Commission's competitive procurement program are uneconomic; that the costs related to all forms of regulation in California are higher than in other states; and that legislative and Commission mandates are more extensive and costly than those imposed on utilities in other states.

CPUC ORDER INSTITUTING RULEMAKING, *supra* note 203, at 35 n.30; see also EEI ECONOMISTS' REPORT, *supra* note 36, at 12 (claiming that integrated resource planning, "[e]specially in states in the Northeast and in California . . . forced utilities to purchase power at prices higher than they would otherwise have had to pay").

If regulation is the only reason why these companies have such high costs, the solution is to decide whether the cost of those regulations exceeds their benefits. If so, then the regulations should be removed—there is no need to restructure an entire industry. Moreover, if these regulations do make sense, presumably they should be applied to new generating companies as well, and this may push those companies' costs up to old levels.

The most intense deregulation debate over whether the reason new companies have lower costs was their avoidance of governmentally imposed, socially desirable subsidies came up in the lengthy fight over AT&T's divestiture. AT&T argued, with some justification, that competitors like MCI were "skimming the cream" off an integrated system that, among other things, subsidized low-income users and local calls. See DERTHICK & QUIRK, *supra* note 64, at 174-202. See generally PETER TEMIN & LOUIS GALAMBOS, *THE FALL OF THE BELL SYSTEM: A STUDY IN PRICES AND POLITICS* (1987).

One of the problems with both FERC's and the CPUC's attempts to ignore questions about

when it did appear, an inevitable response of regulated companies. These are the two fundamental causes of the state's problems, but they have been given no weight in the recovery mechanism.

It is worth reiterating what California's CTC charge will accomplish. Stranded costs, by definition, are the costs of assets that cannot compete in an open market. The CPUC has been very blunt that many of these assets would generate losses in a competitive market.³⁰² The CTC charge is a government intervention to guarantee recovery of costs that customers will not pay voluntarily. Not only can such recovery defeat lower prices, as the CPUC candidly admitted,³⁰³ but it is inconsistent with what must be the underlying justification for deregulation: the finding that utilities have not been operating efficiently.³⁰⁴

V. THE PRINCIPLES THAT FERC AND CALIFORNIA OFFER AS JUSTIFICATIONS FOR FULL STRANDED-COST RECOVERY ARE BADLY FLAWED

FERC's and California's favoritism toward electricity's stranded costs rests on a series of factors that are particularly ill-equipped to allocate such costs. The primary rationale, adopted by both commissions, is that utilities bought the wrong assets under a pre-existing regulatory bargain. This unwritten deal allegedly promised the com-

responsibility for stranded costs is that they have avoided the healthy debate that should occur over the costs and benefits of the noneconomic constraints imposed on utilities.

302. See, e.g., CPUC DEREGULATION ORDER, *supra* note 27, at 194-95 (transition costs arise because assets are "uneconomic").

303. See *id.* at 142-43 (noting that if the surcharge exceeds price decreases, consumer electricity costs will increase).

304. Reality may finally have begun to set in for California's deregulation now that the time has arrived and customers are seeing rate reduction bonds show up on their bills. Chairman Gregory Conlon continues to predict that consumers will enjoy cuts of "30 to 35 percent" once the stranded-cost period is over. See George Raine, *Deflating Deregulation*, S.F. EXAM, Mar. 29, 1998, at D1. His prediction evinces an extraordinary faith that competition will produce sharp price cuts. Others predict that consumers are unlikely to see savings. Consumer advocate Harvey Rosenfield, campaigning for a ballot measure to overturn California's stranded cost treatment and to impose a 20% rate cut, calls the treatment "the greatest heist in California history." *Id.* col. 3. Even State Senator Steve Peace, who "guided" the deregulation bill through the legislature, admits that smaller ratepayers "should 'dispose of the illusion' that the change was intended to benefit them." *Id.* "Peace said the bill was designed for large users, but the Legislature did not want to exclude smaller customers." *Id.*

Even though California has been spending heavily to educate consumers, it does not seem to have found a way to bring competition to small commercial or retail consumers—a problem that continues to bedevil telephone and natural gas deregulation too. The economics of full stranded-cost recovery may be posing an insurmountable barrier to entrants. Enron, expected to be one of the most aggressive marketers to retail customers, just pulled out of the residential market. See *Enron Drops Home Market*, *supra* note 262, at B1. Not only that, but short-run concentration has increased as the CPUC has approved a merger between SDG&E and SoCal, reducing two of the State's three major utilities to one. See *Utilities Deal Okd by CPUC*, S.F. CHRON., Mar. 27, 1998, at C1.

panies the right to recover all costs from their customers.

Another recurrent theme is "financial integrity," as if the nation's power supply would be imperiled without forced cost recoupment. "Cost causation" is a factor stressed by FERC that seems to confuse the allocation of costs across customers with the allocation between a utility and its customers.

None of these factors fits the purpose of regulation or its offspring, deregulation, nor do they justify supplanting the cost responsibility that would impose these losses on the companies themselves.³⁰⁵ Not only is cost responsibility the market's ordinary mechanism for risk allocation, but it ensures the most efficient result for a process whose goal is supposed to be a restoration of efficiency.

A. Regulation Never Has Guaranteed Sharply Uncompetitive Investments

The most frequent argument for full stranded-cost recovery is that electric companies provided service under a "regulatory compact" that guarantees recovery of these costs.³⁰⁶ This argument transforms a market structure designed to protect consumers from abusive monopolies into insurance that all costs these monopolists incur in serving their customers will be recovered.³⁰⁷ At times the theory twists reality so far as to pretend that customers will not suffer by paying for 100% of electric companies' unused and unwanted assets.³⁰⁸

305. Order No. 888's treatment of stranded costs is a sharp break from its natural gas treatment. One can question whether FERC, which has claimed that natural gas presented an "extraordinary" problem that justified equitable sharing, has offered any persuasive distinction between the two industries. See generally John Burritt McArthur, *The Irreconcilable Differences Between FERC's Natural Gas and Electricity Stranded-Cost Treatments*, 46 BUFFALO L. REV. (forthcoming winter 1998).

306. See, e.g., Order 888-A, 62 Fed. Reg. 12,426 (denying stranded cost recovery "would violate the preexisting regulatory compact.").

307. Utilities will argue that prudence tests will prevent recovery of really careless costs. Yet deregulation rests upon a finding that a very large part of the nation's power plant, much of it already included in ratebases and being recovered bill by bill, is much too inefficient (and, at least implicitly, that competitive firms would have acted more wisely). Restructuring makes sense on the assumption that competitive firms would have done better over the past two decades. Deregulation already bears the judgment that electric companies have not been prudent enough because deregulating presumes that ensuring competition for the future will avoid the mistakes that utilities made in the past.

Yet the industry's fundamental cost problem, this root justification for deregulation, a problem that is embodied by stranded costs, has escaped the contours of prudence review. It is this cost problem that should be fitted to a stranded cost mechanism.

308. It is only in this fictitious world that anyone could argue that full recovery of billions of dollars in stranded costs is in the "long-run" interests of consumers too. See COMED COMMENTS, *supra* note 25, at 23-24 ("Recovery of stranded costs is in the long-term interests of rate payers since it will reassure investors and keep down the costs of capital to utilities."). ComEd's argument requires that the discounted present value of the supposed long-term savings from lower interest rates (caused, in turn, by investor appreciation for stranded recovery) exceed consumers' absorption of costs that ComEd estimates as tending toward \$200 billion. See ROSE, *supra* note 3, at 28 (claiming that the cost of capital will rise due to the higher risk of deregulation,

The regulatory-compact argument portrays regulation as a trade. Utilities assume an obligation to serve all customers and accept rate caps.³⁰⁹ In exchange, they get a franchise secure from competition and a sheltered market in which to earn the return allowed on their assets.³¹⁰

Power-company briefs offer many versions of the regulatory bargain. One company claims that stranded costs result from "the extent and nature of the investments [that] were made to satisfy regulatory orders and service requirements."³¹¹ The EEI subtly transforms these costs into "systems costs,"³¹² "costs to fulfill a variety of public priorities and policies established by Congress and state and federal regulators,"³¹³ and "costs [that] were largely incurred with the full involvement and approval—and sometimes at the mandate—of regulators."³¹⁴

but will be offset by the lower costs from market prices and noting that expected benefits to consumers is \$80 to \$100 billion per year while stranded costs are estimated at \$135 billion in total); cf. EEI ECONOMISTS' REPORT, *supra* note 36, at 41 (admitting that increase in capital costs will not totally offset short-term gains in allocative efficiency). This utility position fits one caricature of agency life: "A rate increase that would be rather obvious exploitation . . . in a setting of economic infighting unrestrained by government is magically converted into help for the customers as well as the industry." MURRAY EDELMAN, *THE SYMBOLIC USES OF POLITICS* 59 (1985).

309. See EIA REPORT, *supra* note 15, at 29:

Electric utilities and State commissions historically have often seemed to implicitly agree to an arrangement, in which utilities have an obligation to serve virtually all of the electricity demand in their service territory at the regulated price. In return, commissions allow utilities to charge prices that will earn them a fair rate of return on their investment.

310. For claims that the cap on rates was consideration for guaranteed rate recovery, see, for example, COMMENTS OF UNITED UTILITY SHAREHOLDERS ASS'N OF AM. 2 (Aug. 2, 1995) [hereinafter UUSAA COMMENTS] (claiming that investors expected stability in returns in exchange for the limits on returns); COMMENTS OF THE AMERICAN SOC'Y OF UTILITY INVESTORS 2 (Dec. 5, 1994) [hereinafter ASUI COMMENTS] (claiming that investors relied on regulation to ensure that the "authorized rate of return" would in turn ensure the "integrity of investment"); *infra* notes 316-18 and accompanying text; see also COMED COMMENTS, *supra* note 25, at 10 (claiming stranded cost recovery is mandated by constitutional protection against government takings).

311. COMED COMMENTS, *supra* note 25, LAW & ECONOMICS REPORT, at 15.

312. EEI COMMENTS, *supra* note 23, at 1.

313. *Id.* at 2.

314. EEI ECONOMISTS' REPORT, *supra* note 36, at 4. When one adopts the one-sided view that all uneconomic utility costs are purely the result of agencies that, paradoxically, at best reviewed and approved decisions designed by the companies whom this theory absolves of all responsibility, the results are contagious. We predictably find the same partiality when the EEI's economists describe the wide variation in rates across the country, see *id.* at 6, a factor that persuaded the CPUC (among other agencies) that something was wrong with its suppliers' performance. Economists generally are quite ready to pronounce the convergence of rates, as in deregulated natural gas, a sign that firms finally are acting efficiently. See CRANDALL & ELLIG, *supra* note 3, at 12 (discussing the benefits consumers reap from the convergence of gas prices). When dealing with the wide variation in existing electricity costs, though, the EEI's economists list nearly every possible real-cost and regulatory cause. See EEI ECONOMISTS' REPORT, *supra* note 36, at 6 (listing "differences in fuel and construction costs, taxes, environmental requirements and in the mix of customers, load factors and service area density"). The

The claim extends to what it is that regulation offered electric companies. It is correct that the traditional regulated market allowed utilities an "opportunity" to earn their allowed return. So too, due process protects utilities from arbitrary changes that would remove all possibility of recouping costs. Utility comments rarely go far beyond this point, though, before they expand the *opportunity* of a return, an opportunity that was to be tempered by competition, into a promise and guarantee that utilities *will* recover their costs. In this way, the argument circumvents regulation's most fundamental purpose, its goal of ensuring just and reasonable rates that will serve consumer welfare. Thus we find references to "[t]he legal and public policy context in which the regulatory process operates . . . to provide *guarantees* to the parties to the regulatory contract";³¹⁵ to the earnings opportunity "*promised* investors in order to attract capital" by regulation;³¹⁶ to an alleged promise to "restrict competition to permit the opportunity to earn a stable amount";³¹⁷ and to the "implicit" promise of a "stable customer base."³¹⁸ Shareholder groups speak bullishly of a system that included "[a]voidance of the costs and inconveniences of competition,"³¹⁹ a system that allegedly let utilities invest without "the rigors of competition in mind."³²⁰

Another part of the regulatory-bargain argument emphasizes the cap on utilities' rates of return. Utilities and their investors supposedly accepted this ceiling as the price for recovering their prudent costs.³²¹ These assertions are sprinkled liberally with claims that the

economists fail to mention, however, the factors that should stand out like a sore thumb to any economist, variations in efficiency and ability to manipulate the regulatory regime.

One of the disappointments of the EEI report is its vagueness. Although much of economics is very theoretical, the science has advanced because it argues about measurable things like prices and the number of unemployed. Thus economists so often can help policymakers by bringing facts to bear to refine, narrow, or even disprove policy assumptions. The *EEI Economists' Report* is based, however, on the assumption that utilities made no mistakes. There is not a single fact to support this assumption, or the related assumption that regulation is the true cause of all stranded costs. The report is simply special interest pleading—albeit from very prominent mouths with sophisticated economic rhetoric. *But cf.* SOCAL TRANSITION COST POLICY, *supra* note 255, at 3 (claiming that AB 1890 "acknowledged" that "many of today's high costs result from past regulatory promises made by the Commission regarding the timing of the recovery of depreciation and taxes, past requirements to diversify sources of power by signing long-term contracts that in hindsight have high costs, and the costs incurred by utilities (most notably those associated with QFs and nuclear power) that were reviewed and deemed reasonable when incurred.").

315. COMED COMMENTS, *supra* note 25, LAW & ECONOMICS REPORT, at 18-19.

316. EEI COMMENTS, *supra* note 23, at 17.

317. *Id.* at 13.

318. *Id.* at 43; *cf.* EIA REPORT, *supra* note 309.

319. ASUI COMMENTS, *supra* note 310, at 1.

320. UUSAA COMMENTS, *supra* note 310, at 2.

321. *See, e.g.*, COMED COMMENTS, *supra* note 25, at 10 ("Those utilities and their stockholders accepted a modest, regulated rate of return premised on the existence of a stable customer

risks of being thrust into competition were not mentioned in regulatory hearings,³²² in third-party beneficiary arguments that many of the utilities' investors are retired, individual, small-share investors who were promised stable income,³²³ and with a touch of the gloved fist in claims that the capital market just might dry up if these expectations are not met.³²⁴

Whether labeled regulatory reliance, regulatory contract, regulatory bargain, or regulatory compact, this argument seeks to let utilities escape any consequences for their past conduct. The claim is that even if utility plant and contracts have turned out to be very inefficient, the investments were made in reliance upon the regulated regime, the investments were approved under that regime, and this reliance interest outweighs the needs of efficiency and consumer welfare. The willingness of many economists to accept this argument uncritically may owe something to the presumptive rationality with which economics can color the world. If one assumes that overcapitalization and poor risk assessment were rational responses to incentives distorted by regulation, it may follow that electric companies' inefficiency was an efficient response to a flawed environment. The fact that power companies received their franchises to provide the lowest cost power, and that they made very bad mistakes that prevented them from doing so, can get lost quickly.

FERC adopted the regulatory guarantee position in Order No. 888. A utility reliance interest is the Commission's primary justification for stranded cost recovery. Order No. 888 brims with references to utilities' "reasonable expectation that [their] customers would renew their contracts and would pay their share of long-term investments

base . . ."); EEI COMMENTS, *supra* note 23, at 15 ("Regulators have not in the past compensated utility investors for the risk of potential future wholesale or retail competition."); *id.* at 53 ("[R]ates of return did not compensate investors for the regulatory risks of an abrupt transition."); ASUI COMMENTS, *supra* note 310, at 2 ("[I]nvestors . . . were willing to forego the possibility of speculative rewards in preference for the more modest and predictable regulated return on their investment.").

322. See UUSAA COMMENTS, *supra* note 310, at 3 (investors did not have competition in mind, nor had risks been discussed in rate of return hearings); EEI COMMENTS, *supra* note 23, at 16-17 (risk of competition was never really discussed). The EEI polled its members and found, not surprisingly, that of the 76 utilities responding, only four reported rate hearings in which the risk of potential future competition had been considered. See *id.* at 16-17.

323. See UUSAA COMMENTS, *supra* note 310, at 2 (claiming that among over six million utility company stockholders, the typical stockholder is "retired, likely a married woman, with an annual income of less than \$40,000, owning fewer than 500 shares"); EEI COMMENTS, *supra* note 23, at 11 ("The typical investor . . . is an individual at or near retirement."); ASUI COMMENTS, *supra* note 310, at 2 ("[A]nyone who has life insurance, who is vested in a pension plan, who is employed in a program funded by a foundation, has a direct stake in the impact of the electric utility industry's transition.").

324. See EEI COMMENTS, *supra* note 23, at 30 (discussing drop in electric utility stock prices and noting importance of attracting capital for industry).

and other incurred costs.³²⁵ FERC noted that electric utilities were losing money because they entered into contracts under an "entirely different regulatory regime."³²⁶ The Commission's determination that utilities should not pay for stranded costs emphasized the interests of utility shareholders over consumers, competition, and new competitors.³²⁷

Order No. 888-A directly blames regulation for the utilities' problems. Trying to handle the understandable objections to its about-face from natural gas, the Commission argued that pipelines' competitive risks had been market-driven, but that the threat to electric utilities is deregulation itself.³²⁸ References to the "regulatory bargain" and "reliance" reappear,³²⁹ and the claim of causality is drawn as starkly as possible. In natural gas, the take-or-pay problem allegedly was not the fault of regulatory action but rather of general market conditions.³³⁰ In contrast, electricity's problems stem directly from regulatory action.³³¹ "[R]ecent significant statutory and regulatory changes are central to the circumstances that now place at risk the recovery of past investment decisions of utilities."³³²

The stranded cost portion of the CPUC's deregulation Order is written as if regulation was the sole cause of California's hugely greater-than-average electricity costs. The CPUC treated the state's overpriced plants as if utilities had nothing to do with the decision to build them:

We have found that many of today's high costs *result from past regulatory promises made by the Commission* regarding the timing of the recovery of depreciation and taxes, *past requirements to diversify sources*

325. Order No. 888, 61 Fed. Reg. at 21,549.

326. *Id.* at 21,629.

327.

[W]e do not believe that utilities that made large capital expenditures or long-term contractual commitments to buy power years ago should now be held responsible for *failing to foresee the actions this Commission would take to alter the use of their transmission systems in response to the fundamental changes that are taking place in the industry.* We will not ignore the effects of recent significant statutory and regulatory changes on the past investment decisions of utilities. While . . . there has always been some risk that a utility would lose a particular customer, in the past that risk was smaller. . . . With the new open access, the risk of losing a customer is radically increased.

Id. (emphasis added).

328. See Order No. 888-A, 62 Fed. Reg. at 12,380.

329. See *id.* at 12,272, 12,377.

330. See *id.* at 12,394.

331. See *id.* (claiming that problems are the "direct result of Congress' and the Commission's change in the regulatory regime through FPA Section 211 and Order No. 888"). FERC identified "the widespread transmission access made available through Commission-mandated transmission tariffs" as the "widespread force behind the development of wholesale competitive markets." *Id.* at 12,377.

332. *Id.* at 12,375.

*of power by signing long-term contracts that in hindsight have high costs, and the costs incurred by utilities (most notably those associated with QFs and nuclear power) that were reviewed and deemed reasonable when incurred.*³³³

In this view, electric companies' reliance extended not just to the kind of plant they bought, but also to the scope of their service. Under regulation, SoCal, PG&E, and SDG&E allegedly received the benefit of monopoly franchises in return for being required to provide dependable service to all customers who needed service.³³⁴ Apparently, in fulfilling these responsibilities, the utilities "developed a portfolio of generation assets by investing in power plants and entering into purchase agreements on the understanding, the utilities contend, that reasonable costs would be recovered in rates."³³⁵

The prevalence of regulatory reliance arguments is one reason that it has been so important to decide how far regulation caused stranded costs and how far market errors were to blame. It is no accident that Order No. 888 is just as solicitous in rewriting history to limit the cause of stranded costs to government action, as it is in deferring to utilities' claimed expectation of cost recovery. It certainly is true that new laws have increased the exposure of pipelines and of electric companies. For instance, in natural gas, the NGPA deregulated wellhead prices, and FERC began cutting into pipeline protection with Order No. 380. FERC then tried open access with Order No. 436 and more recently, unbundling with Order No. 636.³³⁶ In

333. CPUC DEREGULATION ORDER, *supra* note 27, at 110 (emphasis added). This finding is repeated in Finding of Fact No. 38. *See id.* at 194 (noting that past regulatory promises account for much of today's high cost of electricity). The determination reads like an adoption of utility arguments, just as when the Commission concludes that utilities' market mistakes "should not be treated the same way as costs incurred by businesses in unregulated industries." *Id.* at 113. The commission found that the utilities should get government protection for these errors "because these costs were incurred in a regulated industry and in fulfillment of the responsibilities of a regulated firm." *Id.*

334. *See id.* at 118 (utilities "provide reliable service on a nondiscriminatory basis to all customers within their territories who requested service").

335. *Id.*; *see also id.* at 195 (describing impact of regulatory structure on services provided to customers by utilities). The Commission wrote that "[l]ongstanding regulatory policies, past Commission decisions, and ongoing regulatory effects persuade us of the need, during the transition to full competition, for a process to account for the lingering effects to today's market structure." *Id.* at 119.

336. Furthermore, pipelines had *more* regulatory protection because their new facilities traditionally had been "certificated" by FERC, while the Commission did not perform similar oversight of electric plants. *See Associated Gas Distribs. v. F.E.R.C.*, 824 F.2d 981, 994 (D.C. Cir. 1987) (discussing facility certification and claiming pipelines are "subject to pervasive Commission regulation"). In addition, the Commission imposed minimum reserve-life requirements on pipeline gas supplies. *See id.* at 995 (claiming that pipelines typically bought gas under long-term contracts because of pressure from the Commission).

One reason that changes in the natural gas market of the Eighties may look more "market driven" to the Commission than those in electricity today may be the looser regulatory bonds of traditional intrastate gas production. *See id.* at 994 (discussing differences between interstate

electricity, the culprits are PURPA, the EPAct, and Order No. 888.

Yet it stretches the truth to suggest that regulation is the "central" cause of electric companies' problems. Both pipelines and electric utilities made gross errors of market judgment, supposedly in the very area of their special expertise. Utilities were very wrong as to where cutting-edge technology would be in the Nineties. As the EIA has shown in its analysis of the electricity industry, and as FERC showed in the history that begins Order No. 888, the plant, fuel supply, and generation technology that produce the lowest costs are far different from those that many utilities have bought in the last few decades.³³⁷ Some of the difference may be due to contracts and obligations that regulators foisted onto utilities, but the huge disparity in average costs cannot be explained without emphasizing utility decisions. To have guessed wrong about the cheapest sources of power is to have made a market error.

When it comes to stranded costs, FERC and California seem determined to ignore the fact that deregulation occurred in electricity as in natural gas because utilities made inefficient and discriminatory decisions. Electric companies failed to adapt to major shifts in technology and production standards. In that sense, it is because their misjudgments opened a gap between regulated performance and production possibilities that restructuring had to occur. And it is because deregulation rests so heavily on economic failures that it does not violate any regulatory bargain. It was not unforeseeable that agencies would disallow costs incurred for plants that became wildly uncompetitive, even if the precise manner in which they might act, and whether by industrywide deregulation or by company, might have been hard to predict. And it was not unforeseeable that great inefficiency and discrimination would cost utilities money.

Deregulation is not a change imposed arbitrarily by agency whim. It is a deep and fundamental alteration of the market, undertaken in electricity after FERC and the CPUC came to believe that there were ineradicable problems with regulated company performance. It is the fact that too many electric companies made repeated errors that makes it sensible to think that competition can produce a significantly better outcome.

Utility citations to a regulatory bargain invariably use cases about

and intrastate gas regulation). There was more room for competition to drive gas prices in intrastate markets before the NGPA than there has been in retail electricity markets. The problems with federal gas pricing became more pronounced because production was shifting to unregulated intrastate markets. Electricity has not seen the same kind of pressure from the intrastate sector.

337. See generally *supra* Part I.

the prudent-cost standard. The companies argue that American regulation guaranteed that prudent costs would be permitted into the ratebase, with rates set high enough to recover these costs from a captive customer base. There are four reasons why such a guarantee should not protect stranded electricity costs. First, deregulation embodies a judgment that too many electric companies have been too inefficient in their power decisions—that they allowed too great a divide to open up between their costs and those that would mark a competitive market. They made investments that competitive firms would have avoided. Stranded costs are the manifestation of this gap. Thus deregulation represents a basic judgment that the companies with stranded costs made many imprudent decisions.³³⁸

Second, prudent-cost cases litigate the inclusion of specific costs in the ratebase within an overall regulated regime. Prudent-cost cases generally do not consider a change in the regulatory fabric itself, particularly not one caused by the collective imprudence of regulated firms. Thus they do not represent the principle that firms are shielded from the risk of occasional but fundamental changes in the fabric of regulation or, as in this case, its removal. The history of American regulation includes repeated uncompensated changes in regulatory structure to encourage firms to better approximate competitive behavior.

Third, utilities ignore the independent principle long applied to utility costs that not only must they have been prudent when incurred, but that they must remain “used and useful” over their life. The “used and useful” doctrine demonstrates in another way that firms always have been at risk that a too-great deviation between their costs and the market as it unfolds will put them at risk.

Finally, had there ever been a true negotiation over who would pay if regulated costs got wildly out of line, there is no reason to believe that the resulting contract would have guaranteed payment for any and all costs. The contract might have been limited in term; it would have been negotiated by better consumer agents than regulatory agencies; and it would have contained protections characteristic of long-term contracts, like price caps, force majeure clauses, and quantity limitations. Well-represented consumers would not have assumed the full risks of overpriced power or given their power companies

338. This reading of deregulation does not imply that regulators are not responsible for some of these mistakes. To the extent that they are, they should bear responsibility and not dump it on utilities. But if the only cause of excess costs is regulatory, it would make no sense to adopt the stimulation of new entrants as the remedy. One would fire, or re-educate, the regulators.

carte blanche.

1. Deregulation presumes the imprudence of most stranded costs

The first problem with the regulatory bargain argument is that it ignores the reason for deregulating the electricity industry. There is a curious detachment in FERC's and California's stranded cost reasoning, which does not fit the general flow of electricity deregulation.

The impetus behind injecting competition into electricity is the sluggishness and unresponsiveness of decisions that utilities made in the Seventies and Eighties. Many electric companies invested in extraordinarily capital-intensive plants harboring the highest-cost technology, whose expense has prevented these firms from evolving with the technological innovations of recent years. The inefficiency of regulated electricity is demonstrated in the gap between the total costs of the regulated industry and the total average cost of power from the best new technology, and also in the variability of power costs among regulated companies. Some of the country's largest utilities are stuck with the wrong assets for today's markets, but many of their peers charted the market more efficiently and face few losses.

The cost imprudence of many of today's companies is the justification for restructuring and forcing them to confront competition. This presumption is built into Order No. 888, California's deregulation, and any deregulation designed to force utilities to compete with other companies. The remedy of opening the generation market to competition makes no sense unless regulators believe that utilities would have made better investments had they been in competitive markets during the period when they built large nuclear plants and signed overpriced power contracts. Deregulation rests on the judgment that utilities with large inventories of stranded costs took risks that competitive firms would have avoided.

The missing link in FERC's and California's stranded-cost treatment is the failure to work this underlying judgment of imprudence and anticompetitiveness into the stranded cost mechanism. Order No. 888 is schizophrenic: FERC forgot its rationale for imposing open access when the time came to allocate the losses caused by the change. The CPUC's deregulation shares this flaw.

a. Deregulation's market-efficiency justification assumes imprudence of incumbent firms

There are a variety of theories why deregulation will bring lower prices—why electricity must have new blood, and not merely a few rewritten regulations—but the main theories rely in good part on

misbehavior and imprudence by regulated firms. The traditional criticism is that monopolists lose the incentive to experiment and to take the risks needed to find the most efficient new production.³³⁹ If so, regulated firms have every incentive to hide behind their protective statutes no matter how often warned that they will recover only for prudent *and* "used and useful" plants, that their practices will be judged against a competitive template, and that marked failure to achieve efficient outcomes will expose them to competition.

The dulling effect of monopoly is part of the theory of competition and, in addition, a conclusion from one of the economic theories about regulation. It is part of the theory of competition because firms facing no effective risk of losing profits have little incentive to worry about making the best investments.³⁴⁰ It is part of the theory of

339. This view, which has become the core of the deregulation movement, has been percolating its way into the mainstream of economics for much of this century. Its precursors include Ronald Coase's insistence that firms do not need regulators to define the best market structure because they will provide goods and services by an integrated structure when it is more efficient to do so, *see generally* COASE, *supra* note 200; the incessant press of Milton Friedman's popularized writings against government planning, *see, e.g.*, MILTON FRIEDMAN, *CAPITALISM AND FREEDOM* (1962), as well as a series of works that have begun to apply such general views to particular government activities like regulated industries. *See, e.g.*, Demsetz, *supra* note 66; George Stigler & Clair Friedland, *What Can Regulators Regulate? The Case of Electricity*, 5 J.L. & ECON. 1 (1962); *cf.* George Stigler, *Public Regulation of the Securities Market*, 19 BUS. LAW. 721, 721 (1964). The intellectual trajectory of this movement is tracked in Edmund Kitch, *The Fire of Truth: A Remembrance of Law and Economics at Chicago 1932-1970*, 26 J.L. & ECON. 163 (1983).

There are several kinds of criticisms of the traditional regulatory model. Clifford Winston, for instance, contrasts the "public interest" theory, which assumes that agencies function as intended to correct market failure and that regulation comes into existence only for this stated purpose, with the Averch/Johnson theory of overinvestment, with capture theory as adopted by the Chicago School, and with contestable market theory with its attack on the idea of long-term monopoly power. *See* Winston, *supra* note 3, at 1266-69. The fundamental questions are, do markets work better than expected, and do agencies function worse? In this regard, Winston argues that "[t]heories of regulation tend to suggest two ways that deregulation will improve things: it will end the "insulat[ion] from actual and potential competition," and it will stop the rent-seeking that characterizes agencies prone to capture. *See id.* at 1268. In addition, there is the dynamic aspect to competition, which has led many to believe that we have underestimated markets' ability to spur innovation in the long run. *See id.* Markets should produce gains by forcing consumers to face the real cost of the goods and services they buy, as well as by forcing firms into innovation and cost-efficient practices. *See* CRANDALL & ELLIG, *supra* note 3, at 3, 6.

By the Sixties, critics were beginning to examine the results of energy regulation, among other regulated sectors, much more specifically. George Stigler and Clair Friedland published their famous study claiming that regulation had not lowered electricity rates. *See* Stigler & Friedland, *supra*. This period saw general critiques of economic regulation such as Murray Weidenbaum's & Robert Defina's *The Cost Of Federal Regulation Of Economic Activity* (1978), Robert Litan & William Nordhaus' *Reforming Federal Regulation* (1983), Eugene Bardach & Robert Kagan's *Going By The Book: The Problem Of Regulatory Unreasonableness* (1982), and more industry-specific works like Stephen Breyer & Paul Macavoy's *Energy Regulation By The Federal Power Commission* (1974) and Robert Helms' *Natural Gas Regulation: An Evaluation Of FPC Price Controls* (1974). The early Eighties witnessed the first appearance of Richard Pierce's continuing work urging gas and electric deregulation, his Harvard Law Review article on *Reconsidering the Roles of Regulation and Competition in the Natural Gas Industry*, 97 HARV. L. REV. 345 (1983).

340. This theory is really quite simple. The EEL's economists gave a standard description of the idea:

regulation because economists have speculated for years that the rate structure under which returns are earned only on capital investment, and that base dwindles as it depreciates, encourages overexpenditure as a way of maximizing profits.³⁴¹

Ignoring risk and strategically overinvesting may be "rational" responses for profit-maximizing firms in a controlled industry, but cost-of-service regulations are not designed to protect this behavior. Regulation was not intended to shield careless investment or overinvestment. Such conduct prevents least-cost service and deprives consumers of just and reasonable rates. To the extent that today's variation in average electricity costs, a factor that can make power from some plants two, three, or more times as expensive as competing power, reflects careless investment or overinvestment, nothing in the structure of regulation requires passing along these costs.

Nor was regulation ever designed to protect firms against innovation and better competitors. It is true that one of the benefits of competition supposedly is a long-term, dynamic gain from innovation. By implication, a regulatory structure built upon monopoly

[A] competitive industry, which places squarely on investors rather than ratepayers the burden of risks that their investment decisions may prove to have been mistakes—while offering them the corresponding opportunity for large profits on their successful ventures—will be more efficient in deploying resources to meet future generation needs than the institutional structures and administrative processes that brought us the major disappointments of the past fifteen years.

EEI ECONOMISTS' REPORT, *supra* note 36, at 21-22; *see also* JOSKOW & SCHMALENSEE, *supra* note 175, at 9 (listing primary economic questions as whether electricity is at least cost, and whether consumers face marginal cost of power), 79 (stating "two principal dimensions of economic efficiency . . . are the costs of supplying electricity and the prices that electricity consumers are charged"); Kahn, *supra* note 175, at 8 ("Wherever it is feasible, competition is superior to regulated monopoly as an institutional mechanism for producing close attention by management to efficiency and promoting progress both in methods of production and in offering consumers an ever-expanding variety of choices, at efficient prices."). *See generally* F.M. SCHERER & DAVID ROSS, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 19-33 (3d ed. 1990) (discussing economic "case for competition" and theoretical inefficiencies of monopoly pricing).

341. The pressure to install too much capital is known in the economics literature as the "A-J-W" effect after Harvey Averch, Leland Johnson, and Stanislaw Wellisz. It is discussed in II ALFRED KAHN, *THE ECONOMICS OF REGULATION* 49-59 (1988); Pierce, *supra* note 56, at 506-07. One of the seminal articles by Wellisz was on natural gas—Stanislaw Wellisz, *Regulation of Natural Gas Pipeline Companies: An Economic Analysis*, LXXI J. POL. ECON. 30 (1963).

Alfred Kahn has argued that the bitter experience of nuclear plant disallowances in the Seventies and early Eighties made utilities so risk-averse that they switched to "in effect, a reverse Averch-Johnson incentive—a fear of expanding rate base and particularly of risky long-lead-time investments." Kahn, *supra* note 175, at 6. Unfortunately, Kahn has not developed this argument, nor shown that utilities were prudent in the investments (limited or not) that they did undertake. Both he and the EIA certainly are right, however, that fear of overextension made utilities less hostile to new third-party generation than they otherwise would have been. It probably is more correct that utilities became more careful in where they would overinvest, than that they shifted from over to under-investment. Consider, for instance, Richard Pierce and Bernard Black's description of how demand side management became a new source of easy returns. *See infra* notes 569-71 and accompanying text.

franchises should expect to dull competition's incentives. Even if monopolists appropriate existing technologies just as well as competitive firms, they still might not risk as much capital on R & D.³⁴² They might miss the small improvements that, compounded over years, can bring the greatest welfare gains.³⁴³ Competitive firms are under constant pressure to innovate because they can only reap windfall gains (above-market returns) if they stay ahead of the market, and they have to assume other firms are trying to do the same. Thus competition brings a premium on experimentation and speed. Firms have to race for "excess" profits. Companies secure in their markets lack this pressure.

Congress's belief in holding electric companies to high standards of performance (and in competition's technology-forcing potential) can be deduced from its effort to bring new firms into the generating market, first with PURPA's incentives for cogeneration and other qualifying facilities, and then with the loosening of limits on generation ownership under the EPAct. As economists William Baumol, Paul Joskow, and Alfred Kahn point out, these new laws helped stimulate the technological advances of recent years.³⁴⁴

342. The jury seemingly remains out on whether competition, monopoly, or some hybrid market form is most conducive to innovation. See, e.g., Thomas Jorde & David Teece, *Introduction*, in THOMAS JORDE & DAVID TEECE, *ANTITRUST, INNOVATION, AND COMPETITIVENESS* 6 (1992) (no evidence that either competition or monopoly is "ideal for promoting innovation"); see also Robert Merges & Richard Nelson, *Market Structure and Technical Advance: The Role of Patent Scope Decisions*, in JORDE & TEECE, *supra*, at 185 (no evidence that monopoly "is a necessary or optimal setting for technical advance").

343. See, e.g., Phillip Areeda, *Antitrust Law as Industrial Policy: Should Judges and Juries Make it?*, in JORDE & TEECE, *supra* note 342, at 31 ("At least since Schumpeter wrote nearly fifty years ago, innovation has been thought to contribute far more to our well-being than keeping prices closer to costs through competition."); Easterbrook, *Ignorance and Antitrust*, in JORDE & TEECE, *supra* note 342, at 122 ("An antitrust policy that reduced prices by 5 percent today at the expense of reducing by 1 percent the annual rate at which innovation lowers the costs of production would be a calamity."); Jorde & Teece, *Introduction*, *supra* note 342, at 4 ("We take it as axiomatic that innovation and its rapid and profitable commercialization are the key factors driving productivity improvement and economic welfare."). Joskow and Schmalensee's study of the electricity industry concluded that "[m]ost long-run evaluations of the electric power industry ignore technological change, despite its importance." JOSKOW & SCHMALENSEE, *supra* note 175, at 86. See generally COSTELLO & GRANIERE, *supra* note 2, at 65-66 (arguing that regulatory benefits tend to be underestimated because long-term gains from innovation are greater than expected); cf. ROSE, *supra* note 3, at 37-38, 88 (arguing that "main economic argument for permitting more competition for electric generation" is dynamic efficiency, and that regulators should focus on efficiency). Joskow and Schmalensee do lend a note of sobriety to the discussion when they remind us that most innovation has been in "laboratories and factories of the electrical equipment and boiler manufacturers," JOSKOW & SCHMALENSEE, *supra* note 175, at 87, not from utilities. This may be a measure of how severely regulation has impeded experimentation, or a sign of the limits of physical improvements in the regulated aspects of the industry. Evincing even more humility, they note that Thomas Edison had opposed high-voltage transmission. See *id.* at 86. Failure to read the market well has deep roots in the industry, even among its greatest minds.

344. "On the positive side, QF developers provided a major stimulus to advances in combined cycle gas turbines (CCGT), as well as waste-utilization and coal technologies, and have

Because competition is expected to bring technological advances, regulators might have expected somewhat less innovation from the traditional geographic monopolies. But they did not endow regulated firms with investment-life protection if they failed to appropriate new technologies. That energy companies got market protection was not meant to disable them from taking risks; regulation was not created to reward failures of nerve or skill. The benefit of structuring regulation to let private firms continue operating in the public interest lay precisely in retaining the benefit of private companies' entrepreneurial drive.

Federal deregulation relies heavily on the belief that too many firms acted inefficiently when they made their investments. Deregulation implies a judgment of imprudence. Thus when FERC found that it "became increasingly clear that the potential consumer benefits that could be derived from [] technological advances could be realized only if more efficient generating plants could obtain access to the regional transmission grids,"³⁴⁵ what it meant was that even going forward, utilities would not invest with desired efficiency unless they had competitors.³⁴⁶ Moreover, when FERC found that electric companies, hoping to protect outmoded plants, had "the incentive to engage, and have engaged, in unduly discriminatory practices in the provision of transmission services,"³⁴⁷ that was another reason why regulated companies needed to face more competition.

The CPUC similarly found that "[w]e cannot have a fully competitive market for generation unless and until we eliminate any significant lingering ability of the former monopoly utility to distort prices or restrict competition in the new competitive market."³⁴⁸ This find-

been successful in employing those technologies efficiently. Many have excellent performance records." EEI ECONOMISTS' REPORT, *supra* note 36, at 11-12. ComEd's competing economists from the Law and Economics Consulting Group noted the possibility that the gains from adding a new firm to the market might outweigh other costs. Cf. COMED COMMENTS, *supra* note 25, LAW AND ECONOMICS REPORT, at 50 n.45 (even "inefficient bypass may have a positive welfare implication, in that it may create a set of suppliers that would not exist otherwise"); Kahn, *supra* note 175, at 11, 16 (discussing case for "infant company" protection, but concluding that regulations for such purposes "impos[e] certain, current costs on society in exchange for uncertain future benefits and ought not be undertaken except on the basis of an explicit and careful judgment.").

Perhaps showing that some groups can never give credit where credit is due if the government is involved, the Heritage Foundation claims that the positive, innovative impact of PURPA was an unintended consequence of reform. See THIERER, *supra* note 38, at 20.

345. Order No. 888, 61 Fed. Reg. at 21,546.

346. FERC cannot mean simply that utilities would not invest in new technologies today because they already have excess capacity. The combination of full-recovery and exit-fee billing insures that most of this old capacity will be used, so it cannot be current utilities' failure to exploit existing plants, but their expected inefficiency over time, that worries the Commission.

347. Order No. 888, 61 Fed. Reg. at 21,566 (emphasis added).

348. CPUC DEREGULATION ORDER, *supra* note 27, at 34.

ing would make little sense unless the Commission meant that California's electric companies *had* used their monopoly power to distort prices and restrict competition.

That California's deregulation, like other deregulations, draws its legitimacy from the perception of utility underperformance comes through in the 1993 Yellow Report prepared by the CPUC's Division of Strategic Planning. Though the report admitted the unwarranted costs of the CPUC's own processes, it is also replete with statements about the blunted incentives and inefficient investments that firms displayed during regulation.³⁴⁹ Traditional regulation rewarded companies that overestimated costs or underestimated sales.³⁵⁰ These distortions may be the "rational" responses of a profit-maximizing firm to regulation, but they are not proper behavior. The utility can gain only if "this behavior goes undetected by the Commission."³⁵¹ Such uneconomic deviations are a "sort of manipulation" that cause consumers to pay excessive rates.³⁵²

Both electric companies' failure to avoid avoidable costs and their assumption of inappropriate risks are embedded in the mounting stranded costs. Though they are the foundation for the decision to deregulate, these considerations disappeared from FERC's and the CPUC's stranded cost thinking. Both agencies failed to estimate how much of the stranded cost burden is attributable to utility carelessness, and how much to anticompetitive decisions, even though their deregulations make little sense without the judgment that electric companies made a lot of very inefficient investments in the last few decades. Assume, for instance, that utilities building nuclear plants and very large coal-fired plants really made the same decisions that competitive firms would have made, that their monopoly positions did not cloud their risk-taking. Assume too that the clear after-the-fact inefficiency of much of the country's generating capacity is just

349. See YELLOW REPORT, *supra* note 14, at 3, 96-98, 141-46.

350. See *id.* at 141.

351. *Id.*

352. See *id.* The belief that regulated firms *will* try to game the system is so strong that description often fades into justification. Thus, when the Yellow Report describes the regulatory environment as one in which "the utility develops and puts to use skills that differ considerably from those on which firms operating in an intensely competitive market must rely," *id.* at 150, it is hard to tell whether this is a lamentation or an excuse.

In describing the end of the "glory days," the staff made clear that companies did not respond well to the higher-cost, tighter energy market. As it described the general industry response to these problems:

Some utilities continue planning as if nothing has happened. . . . Other utilities are more cautious but no more realistic; they continue to pursue large generation, in the pursuit of economies of scale and in the face of the environmental movement. The result will be financial difficulties for many of them, including California's utilities.

Id. at 34.

the march of technology, and that technology would have bypassed competitive firms as thoroughly. Then there would be no need to change the firms or market structure of the industry.

Similarly, if the only cause of stranded costs was agency inefficiency, the "logical solution would be to try to make the existing regulatory process work better."³⁵³ This particularly would be true because monopoly utilities have some comparative advantages, whatever they may lose in vigor and zest. Generation continues to have some economies of scale,³⁵⁴ which firms in protected markets are best situated to reap to the fullest, and service-area monopolies can exploit gains from vertical integration. Unless these companies have extinguished those advantages by mistakes in planning and investing, a rational society probably would leave the current market structure intact.³⁵⁵

Consumer advocates might argue that even if technological change has opened the cost-gap between current large plants and the best new facilities, it is best to give consumers the benefit of the cheapest prices. Competition would be served by making utilities pay stranded costs. But punishing utilities without regard to fault solely because technologies changed would be a motive prohibited by the Supreme Court. The Commission would be "arbitrarily switch[ing] back and forth between methodologies in a way which required investors to bear the risk of bad investments at some times while denying them

353. JOSKOW & SCHMALENSEE, *supra* note 175, at 6.

354. Cf. EEI ECONOMISTS' REPORT, *supra* note 36, at 7 (conceding that there are "some" economies of scale in generation, but arguing that electricity generation never has been a natural monopoly and that recent gas-fired technologies have "further undermined the case for local or regional monopolies").

Perhaps the more interesting question will be just how much utilities benefited from economies of integration. As the EEI's economists rightly point out, if the competitive market does not correctly price formerly integrated services (and cannot perform those services with as little transactions cost), the benefits of deregulation "could be entirely dissipated or indeed more than entirely offset by the deteriorated coordination between that sector and transmission." *Id.* at 29. See generally *supra* note 200 and accompanying text.

355. Some utilities still would claim that society should just leave the industry alone. Though it has been clear that FERC and most states are going to order some form of open access (so there has been little to gain from arguing over the virtues of pure monopoly), consider the undocumented assertion by EEI's economists that the chance for short-term efficiency gains are "very limited" and that "most existing utility plants . . . are superior to any proposed new ones." EEI ECONOMISTS' REPORT, *supra* note 36, at 20-21. Though the economists do predict long-term gains from injecting competition, it is a little hard to square that with this part of their report. If there are not some current gains to be had by switching to other plants, i.e., if the historical decisions of utilities have been just fine, why expect marked gains in the future from a new structure? Why would a competitive market be that much better at dynamic gains, if utilities have not fallen short as innovators over the last few decades? All this highlights, of course, the odd failure of these economists (and FERC and the CPUC) to address, much less try to quantify, the inefficiencies caused by the utilities themselves even though they acted as the unquestioned primary economic decisionmakers under the old structure.

the benefit of good investments at others."³⁵⁶ This is not a legitimate reason to restructure the electricity business; one legitimate reason to restructure the industry is underperformance of regulated utilities.

b. Deregulation's agency-inefficiency justification implies firm errors

The conclusion that utilities bear a lot of responsibility for deregulation, a responsibility inconsistent with full stranded-cost recovery, draws support from a second main economic reason for deregulation, one of the agency-inefficiency arguments. Deregulation promises to cure various inefficiencies in agency performance, not just inefficiencies by regulated firms. Some of these inefficiencies are "innocent,"³⁵⁷ but others occur because firms exploit or, in economic

356. *Duquesne*, 488 U.S. at 315.

It may well be that competitive markets generate more losses for firms than regulated markets because most firms guess wrong. It is quite possible that competition functions so well to spur investment only because so many entrepreneurs overestimate their individual likelihood of return, and so risk more money than is rational. Cf. Kahneman & Lovallo, *supra* note 63 (arguing that companies generally underestimate risks by focusing on the likeliest outcome, rather than the weighted probabilities of the many ways in which an investment might go wrong). Were that the case, regulated firms would be rational in avoiding the excesses of competitive firms. Regulated firms would not make foolish or dubious investments on the remote possibility that one of them might pay off when they would not profit anyway.

From this perspective, the question about recovery then would become whether regulated firms, though perhaps expected to be more cautious about risk than headstrong competitors, retained *any* risk that a too-great deviation from competition would re-expose them to a competitive market. Even if they were not at risk of day-to-day, asset-by-asset competition against rival firms, if for any reason, including the high costs of the Energy Crisis in the Seventies, it began to appear that competition could offer *much* lower prices, or that a new structure could produce a better outcome, were they really not at risk? The answer of the cases discussed in this part is a resounding yes, they were. This risk is not one that often materialized, so its discounted present value may never have amounted to much and it may have moved off most investors' horizons, but it always was there.

For a contrary view of risk expectations, see JOSEPH KALT ET AL., RE-ESTABLISHING THE REGULATORY BARGAIN IN THE ELECTRIC UTILITY INDUSTRY (1987). Not surprisingly, given their narrow reading of the "used and useful" test, Kalt and his co-authors argue that denial of full recovery for nuclear plants was a reversal of a standard bargain that guaranteed recovery of all prudent costs. See *id.* at 39. They claim that "all parties" in the industry, including regulators, believed that nuclear plants were prudent investments, and that the uncompetitiveness of these plants was unexpected. See *id.* at 17-18 (noting a "perception on the part of all parties was that these investments would result in substantial cost savings . . . [n]o one foresaw three- to five-fold increases in construction costs" or drop in demand growth); *id.* at 26 (acknowledging a "general recognition" that nuclear plants "were reasonable given the information available at the time"); *id.* at 43 ("general agreement" between regulators and utilities over building nuclear plants). According to this reading, investors had not understood their risk. See *id.* at 32-33. The authors warn that investors' perception of a change in their expectation of recovery will jeopardize capital for future electricity plant regardless of who really is at fault for nuclear costs. See *id.* at 3-4 ("Nothing can distinguish the fact that financial markets now distinguish sharply between companies with construction programs [i.e., at risk of cost disallowance] and those without."). Apparently for this reason, they warn that "blame" is an "unfortunate" issue that should not be relevant in an efficient regulatory structure. See *id.* at 3-4, 9-10, 66. They ultimately recommend regulatory preapproval for large capital projects as the best solution to this problem.

357. As an example of an "innocent" regulatory distortion (a problem that even an economy filled with good-faith participants might experience), regulation will not work well if effi-

cient decisionmaking requires diffuse decisions at a variety of market levels. It may be impossible to make central planning as efficient as traditional regulatory structures require.

This probably is a fair summary of F.A. Hayek's point about the marvel that a market system not only works, but works well. In a justly famous passage, F.A. Hayek expressed this strength of the market as follows:

Fundamentally, in a system where knowledge of the relevant facts is dispersed among many people, prices can act to coordinate the separate actions of different people in the same way as subjective values help the individual to coordinate the parts of his plan. . . . *There is no need for the great majority of them even to know where the more urgent need has arisen The whole acts as one market, not because any of its members survey the whole field, but because their limited individual fields of vision sufficiently overlap so that through many intermediaries the relevant information is communicated to all.*

F.A. Hayek, *The Use of Knowledge in Society*, 35 AM. ECON. REV. 519, 526 (1945) (emphasis added). The more complex and difficult it is for an economic activity to be mastered by a single mind, or even a group of computer-aided minds—that is, the less predictable a market or the more it is going through a period of rapid change—the greater this strength of the market. Hayek continued:

The most significant fact about this system is the economy of knowledge with which it operates, or *how little the individual participants need to know in order to be able to take the right action*. In abbreviated form, by a kind of symbol only the most essential information is passed on

But I fear that our theoretical habits of approaching the problem with the assumption of more or less perfect knowledge on the part of almost everyone has made us somewhat blind to the true function of the price mechanism and led us to apply rather misleading standards in judging its efficiency. The marvel is that in a case like that of a scarcity of one raw material, without an order being issued, without more than perhaps a handful of people knowing the cause, tens of thousands of people whose identity could not be ascertained by months of investigation, are made to use the material or its products more sparingly, *i.e.*, they move in the right direction. This is enough of a marvel even if, in a constantly changing world, not all will hit it off so perfectly that their profit rates will always be maintained at the same constant or "normal" level. I have deliberately used the word "marvel" to shock the reader out of the complacency with which we often take the working of this mechanism for granted. I am convinced that if it were the result of deliberate human design, and if the people guided by the price changes understood that their decisions have significance far beyond their immediate aim, this mechanism would have been acclaimed as one of the greatest triumphs of the human mind. Its misfortune is the double one that it is not the product of human design and that the people guided by it usually do not know why they are made to do what they do.

Id. at 526-27 (emphasis added).

Another regulatory-cost problem for which regulated firms cannot be blamed is that regulators often impose social policies that add greatly to costs. Regulation brings into being a hierarchical, industry-wide command structure that makes it possible to spread rules cheaply across all firms. Once the command structure is in place, many groups cannot resist the temptation to subsidize their pet goals. Agencies may push nuclear power or alternative fuels from a desire to better the security of fossil fuel supplies; may require environmental measures whose costs exceed their benefits; or may graft objectives like demand management and subsidies to the poor onto the rate structure. For a pessimistic interpretation of recent electric generation in this regard, see Black & Pierce, *supra* note 175, at 1343 (opining that the reasons for misuse of rate regulation and other regulatory measures in electricity "are deeply embedded in a combination of strong political forces, the powerful symbolism of energy conservation and environmental protection, the incentives of utility regulators and rate regulated industries, and the limited competence of utility regulators in addressing highly complex issues").

To the extent that regulation imposes uneconomic or misguided goals onto utilities (and the utilities say that social policies caused a lot of their problems), see, e.g., *supra* note 208; *infra* note 561, a society smart enough to know the true value of its policies would not deregulate. Instead, it would identify and remove unwarranted rules. If it has overvalued diversification of energy supply, it will relax those requirements. If it has pushed demand management beyond

jargon, "capture" the regulatory framework.³⁵⁸ Firms try to game the system, and customers should not pay when that happens. A full analysis of regulatory failure would have to address the extent to which firms distorted agency decisionmaking. The effort to blame all stranded costs on regulators, as if utilities had not retained primary investment responsibility and instead had invited commissioners to pull up a chair to the planning table, is a woefully inaccurate description of the agency process. It endows underfunded commissions with superhuman powers, while treating well-funded power companies as victims.

Many rate processes operated in reverse. Utilities had much greater resources than the commissions that watched them. As one long-time industry observer has stated, "[c]ommissions do not have personnel adequate either in numbers or in expertise to make independent forecasts of demand, construction costs, cost of alternative methods of generating electricity, and the many other factors relevant to decisions to construct new plant."³⁵⁹

all reason, it will drop those requirements. These inefficiencies exist independent of market structure. But, conversely, to the extent that these "social" policies make sense, they will be imposed on all companies, including new entrants, even in a competitive market. Most economists prefer to remove all sectoral subsidies, and provide direct funding to further such social aims as income redistribution. This is true because, unless consumers' income elasticity for a product is one, giving them money rather than a product subsidy lets them spend some of the money on other products and raise their total utility. See HARVEY ROSEN, PUBLIC FINANCE 172-76 (3d ed. 1992) (comparing in-kind transfers and income transfers). See generally BRIAN BINGER & ELIZABETH HOFFMAN, MICROECONOMICS WITH CALCULUS 152-58 (1988) (discussing mathematical derivation of income and substitution effects). This belief in vouchers and income subsidies, rather than product subsidies, make one expect to find economists urging that power regulators stick with the economic goals of the least-cost power and marginal cost pricing. Cf. JOSKOW & SCHMALENSEE, *supra* note 175, at 8 (cautioning against using electricity regulation to further "all possible basic social goals"); THIERER, *supra* note 3, at 32-33 (urging avoidance of "service mandates" and use of vouchers "if[—]if?—]there is a justifiable need to ensure the poorest Americans do not go without electricity").

California's electricity deregulation includes an intricate process committing hundreds of millions of dollars to maintain direct funding for certain social programs. The Legislature mandated a separate rate component to fund energy efficiency, conservation activities, and other public interest programs. See CAL. PUB. UTIL. CODE § 381(b) (West Supp. 1997). Efficiency and conservation program funding was to be maintained at "not less" than \$172 million a year from January 1, 1998, through 2001; research and development funding at not less than \$62,500,000; and renewable resources at not less than \$109,500,000 for the first three years, and \$136,500,000 for 2001. See *id.* § 381(c). Income-support programs "shall be funded at not less than 1996 authorized levels based on an assessment of customer need." *Id.* § 382. The CPUC has taken the first steps in restructuring both energy efficiency and low-income services to see how far it can inject competition into their provision. See Dec. 97-02-014, Dockets R.94-04-031, I.94-04-032 (Feb. 5, 1997).

358. See *infra* Part VI.C.

359. Pierce, *supra* note 7, at 533; see also KALT ET AL., *supra* note 356. Kalt and his co-authors admit the imbalance of resources between the agency and the firm. Oversight proceedings are dangerous because of the risk that the agency auditor "will not have the support staff or the expertise to do the job." *Id.* at 48. They spell out the problem:

In fact, most PUCs are not institutionally equipped to do the type of analysis needed

Electric companies did not just sit back and entertain capital proposals from their commissions. They designed, proposed, and championed, sometimes without any requirement of regulatory approval, very capital-intensive facilities.³⁶⁰ They often urged, rather than resisted, the new nuclear plants and QF contracts about which they complain today. Prudency tests have not been that effective at ferreting out those ill-advised investments.³⁶¹ In order to maximize returns, some utilities unquestionably tried to maximize capital expenditures. Electric companies, not commissions, controlled the investment process, with one result being that the prudent-cost test that utilities now claim immunizes their stranded costs did not weed out bad investments (which is why utilities find it so useful in retrospect).³⁶²

to support decisions based solely on a determination of whether strict criteria or guidelines have been met They are rarely provided with sufficient staff, and the staff they do have turns over at a rate that makes it difficult to create enough institutional memory to handle the complicated issues brought before it.

Id. at 54.

It is important to note that customers, or their representative, the commission, were usually not a party to utility decisions. Since commissions do not have the same level of information and resources as the utility, they often act as reviewers of plans and hear the arguments of interested parties. In these cases, it would be difficult to see why ratepayers should now shoulder the entire burden of a utility's loss from being uncompetitive. See ROSE, *supra* note 3, at 70; see also *Southwestern Tel. Co. v. Public Serv. Comm'n*, 262 U.S. 276, 289 (1923) ("It must never be forgotten that while the State may regulate with a view to enforcing reasonable rates and charges, it is not the owner of the property of public utility companies and is not clothed with the general power of management incident to ownership."). Though in *Southwestern Telephone* this principle operated to protect the phone company's judgment, responsibility should come with a price. If utilities are the primary decisionmakers, they must be accountable for their mistakes.

Even some agencies sense the problem. Cf. YELLOW REPORT, *supra* note 14, at 3 (acknowledging that the complexity of proceedings threatens quality of CPUC decisions), 75 (Commission accused of micromanaging but also of "failing to adequately scrutinize" companies).

360. Richard Pierce's history of the varying state positions on nuclear plant approval, operation, and cancellation is a good example of how much more complex the industry decision-making process really is, as well as how it can vary by state. See Pierce, *supra* note 60, at 507-20.

361. See *id.* at 512.

362. Though this test may sound fairly stringent, Richard Pierce thinks that it "almost always results in the inclusion of plant investments." *Id.* at 511. Pierce has two explanations for the weakness of the test. First, investments were "rarely blatantly imprudent when viewed in light of the knowledge and alternatives reasonably available . . . and the overall complexity of the considerations involved." *Id.* at 512. In addition, the burden of applying a test stringently is too high given the "extraordinarily large expenditures for the services of lawyers, economists, and engineers." *Id.* As an example, Pierce argues that for plant approvals, "[a]s a result of the relationship between a Commission's prior certification of plants and subsequent rate treatment of plants, utilities are seemingly the principal beneficiaries of a grant of certification power to a state regulatory commission." *Id.* at 535. This goes not just for plant certification in states in which commissions do certify plants, but also for the broader decision to include costs in the rate base. Electric companies come to those proceedings with far greater resources than a commission can bring to bear. Yet, as the next section shows, the companies now want to convert that review process into a *guarantee* of recovery. In fact, all the rate process does is determine which costs companies can try to recover and at what rate; it has never been the purpose

Companies that underestimated or concealed costs and risks—and those that overindulged in capital spending to hike returns—were not following their regulatory duty. Reasoned rulemaking would estimate the plants, contracts, and other obligations that utilities accumulated by mistake or by overinvestment.³⁶³ It would ask how seriously they approached their duty to supply “least-cost” power. Rather than take at face value claims that so many stranded investments were thrust upon them by agencies, it would examine utility filings and behavior. It would question whether utilities opposed, or, instead, supported (or even sought) the assets that today are so uneconomic. It would ask how well the firms disclosed the risks of large-scale, multi-year capital investments.³⁶⁴ In addition, the inquiry would have to estimate the costs utilities imposed by discriminating against new and cheaper power.³⁶⁵ And these costs would stay with the utilities.

Both natural gas and electricity deregulation would have had a very different history (and outcome) had utility inefficiency and discrimination *not* formed such a large part of their justification. Nor would

of regulation to include a guarantee against competition from other providers, no matter how inefficient or careless the incumbent firm.

363. A prudent Commission might have done this generically, trying to estimate an overall range for these costs, rather than proceeding by company, but it would have made some findings in these areas.

364. Another unfortunate consequence of full recovery is that it has let FERC and California avoid the issue of just how imprudent the company decisions leading to stranded costs really were. Indeed, these two Commissions did not even make a finding of the likely scope of stranded costs. Society has been deprived of the facts needed to create a fair and effective solution to the problem. These two recovery mechanisms stand as billion-dollar solutions for “problems” whose extent will remain undecided until after the remedies become final.

Natural gas again is a telling contrast; when the Commission issued Order No. 500, it already had collected detailed data from pipelines on their take-or-pay exposure.

365. Utilities could argue that this would be a very expensive process and that (given the greater involvement of commissions in electricity than in natural gas investments) making detailed stranded-cost findings would only squander resources when the outcome should be that virtually all costs will be recoverable anyway. After all, one reason FERC approved equitable sharing in natural gas was to avoid litigation costs, *see infra* note 525 and accompanying text. In electricity, the CPUC was quite clear about its belief that resources spent on litigation over electricity deregulation would be wasted resources. *See infra* note 526 and accompanying text.

The argument that fighting over an exact assignment of responsibility will waste resources, though, is not a justification for making customers bear all stranded costs. In natural gas, FERC decided it would be hard to make any exact allocation of blame, so it imposed an “equitable” burden on pipelines and their customers. The natural gas experience suggests one problem with electricity’s litigation-avoidance rationale: if we are avoiding litigation, why should only one of the sides that might sue get all the benefit? A solution that makes utilities bear some costs, but less than they might lose under a pure economic test, while giving customers more than they get under Order No. 888, would be likelier to avoid litigation.

Moreover, if FERC and the CPUC believe that the real justification for 100% recovery is avoidance of litigation cost, their obligation as agencies is to prepare a record that justifies that conclusion. Finally, the solutions adopted seem likelier to encourage than discourage litigation. For instance, FERC has opened up a range of disputes over issues ranging from its retail jurisdiction to the fact-intensive, contract-by-contract decisions it will have to make over “reasonable expectations.”

the process have been so avidly championed by the agencies themselves, had it rested on the belief that regulators, and they alone, were to blame for the problems that hobble the industry today.

2. *Prudent-cost protection never prevented changes that foster competition*

Another mistake of regulatory-bargain advocates, and of FERC and the CPUC in endorsing their arguments, is to assume that protection for prudent costs should extend to losses caused by changes in the regulatory fabric itself, as opposed to the risks of individually imprudent investment decisions within a fixed regulatory structure. Allowing a cost in the ratebase historically has *not* protected a firm from the possibility that competitive forces gathering strength outside the protected market might undercut cost recovery, or that regulators might change the regulatory structure in a way that enhances the risk of competition.

In the Order No. 380 appeal, for instance, the Court of Appeals agreed with FERC that certification of service "does not guarantee that the initial terms of that service will never change."³⁶⁶ FERC's power to order competitive remedies came up again in Order No. 436 and the battle over open access. Pipelines had argued that open access would prevent them from passing along gas costs. They pointed out that FERC had required them to buy a long-term gas supply, and said it would be unfair for the Commission to remove the context in which they had expected to recover these investments:³⁶⁷

[T]he pipelines have been caught in an unusual transition. They entered into the now unnecessary contracts in an era when government officials berated pipeline management for failures of supply and constantly predicted continuing energy price escalations. Moreover, as sales and transportation were then wholly bundled, and unregulated pipeline gas trading affiliates were unknown, there was no way that a pipeline could generate direct profits on the gas-trading component of its business. Thus, their being abruptly and retroactively subjected to the downside risk is at least jarring.³⁶⁸

366. *Wisconsin Gas*, 770 F.2d at 1153 n.7. The natural gas orders show just how free FERC remains to make uncompensated changes to foster competition. In Order No. 380, FERC found (in the reviewing court's words) that the "benefit of eliminating variable cost recovery through minimum bills outweighs the negative impact such action will have upon pipelines and upon full requirements customers." *Id.* at 1157. The Commission had decided that any harm would be isolated and brief, and was outweighed by the long-term benefits of Order No. 380. The court of appeals called this one of the "hard choices the Commission is required to make." *Id.* at 1161.

367. See *Associated Gas Distribs. v. FERC*, 824 F.2d 981, 995 (D.C. Cir. 1987).

368. *Id.* at 1027.

Electric utilities have lined up to make the same reliance argument for nuclear plants and other outmoded generating capacity and power supply contracts.³⁶⁹

In spite of these pleas, the courts upheld Order No. 436. "Pipelines had no right to avoid losses from market conditions";³⁷⁰ regulation did not guarantee that a pipeline would operate successfully.³⁷¹ The evidence supported the Commission's determination that competition's gains offset pipelines' losses.³⁷² FERC could hold pipelines to the standards of competitive firms, even if they had made their investments in reliance on a quite different regulatory environment:

The Commission also invoked the closely related policy of holding pipelines accountable for their decisions in order to induce them to act more in the manner of firms in a competitive industry.

....

In essence, *FERC argues that the pipelines' subjection to regulation is hardly, in itself, a reason why they should be able to escape contract liability more readily than unregulated firms.*

....

FERC's policy arguments in favor of subjecting pipelines to the pressures of a competitive market seem powerful and well grounded in the statutes it is authorized to enforce.³⁷³

This approach treats costs stranded by industrywide deregulation as outside ordinary prudence review. Investors and shareholders will not be guaranteed recovery when the reason costs are at risk is an exposure to competition. Regulation was not intended to insulate firms from long-run technological and market trends.

The pipelines tried to argue that by making it much harder for them to pass through gas costs, Order No. 436 undercut one point of the Natural Gas Policy Act, namely, preventing the Commission from

369. See *supra* notes 309-24 and accompanying text.

370. *AGD I*, 824 F.2d at 1001.

371. See *id.* ("[P]etitioners have called our attention to nothing that bars the Commission from devising rules that remedy a lack of competition by exposing pipelines to competition and its normal consequences.")

372. See *id.* at 1002.

A duty not to discriminate, imposed by the Commission on the basis of findings that the duty is necessary to assure consumers access to competitively priced gas, is utterly different [from common carrier classification]. The imposition of the duty here facilitates the accomplishment of Congress's purposes. At least it will do so if the gains in enhanced access offset whatever losses may result from the disincentive effect on pipelines. The judgment balancing those consequences is for the Commission to make

Id.

373. *Id.* at 1026-27 (emphasis added).

interfering with privately negotiated gas prices.³⁷⁴ The Court of Appeals responded that regulatory steps designed to make a market more competitive are a proper intervention:

Despite [the] constraints on the Commission's power to limit pass-through *by decree*, it has considerable ability to protect consumers by bringing about *market conditions* that prevent a pipeline from passing costs forward. The NGPA's legal limits on restricting pass-through clearly do not bar rules tending to generate such market conditions. . . . Indeed, that is the principle underlying Order No. 436.³⁷⁵

Moreover, in natural gas, FERC held pipelines to a duty of maintaining their performance near competitive levels even if their errors only became evident in hindsight. In the first review of Order No. 436, pipelines argued that "the Commission's not having imposed any requirements like those of Order No. 436 in the period from enactment in 1938 until the present demonstrates the lack of any power to do so."³⁷⁶ But the courts agreed with FERC that it could create new remedies to keep up with market changes: "the Commission here deals with conditions that are altogether new."³⁷⁷

The prudence of costs can be a guarantee that they will make it into a ratebase and be reflected in the rate that a company then can charge for its services. Of course, prudence cannot guarantee that customers will want to buy the services. Nor, as the natural gas example shows, does it prevent a commission from taking steps to make the market in which that rate is to be recovered more competitive. In electricity as well, the main issue is not whether an agency can limit pass-through by decree, but whether it can facilitate market conditions even if these block recovery for certain old plants and contracts. The "opportunity" to recover is not a guarantee.³⁷⁸

374. *See id.* at 1025-26.

375. *Id.* at 1025-26.

376. *Id.* at 1001 (citation omitted).

377. *Id.*

378. *See ROSE, supra* note 3, at 43-44 ("opportunity" to recover does not give "legal right to recover all incurred costs" and does not include reciprocal obligation on customers to buy power); *id.* at 58 ("key thread" is that return is only an opportunity; "[s]ince competition and its introduction do not cause 'stranded costs,' and the utility is not likely to be prevented from an opportunity to sell its power, the introduction of competition does not result in an unconstitutional taking[]").

This is how Rose summarizes the bargain embedded in the prudency cases in his NRRI Report:

A description of the regulatory compact as historically interpreted, may be as follows: the careful balance between compensatory rates and confiscation of utility property that allows a utility an *opportunity* to earn a reasonable return on their investment in exchange for providing safe and reliable power at reasonable cost to all customers who request service. This opportunity is held in check by the "used and useful" and

The relevance of the market as it changes is clear in some parts of Order No. 888, too, though this point mysteriously vanishes in the stranded-cost discussion. For instance, the prologue describes utilities as if their large-scale plants have been superseded by *later* changes in demand, interest and costs, and technology.³⁷⁹ Hence, the importance of the finding that the benefits of the new technologies "could be realized only if more efficient generating plants could obtain access to the regional transmission grids," i.e., by open access.³⁸⁰

FERC's power to apply changing standards comes through even more clearly in its rejection of utility claims that it could not condemn already-approved electricity tariffs as discriminatory. Order No. 888 made very clear that FERC can reexamine and change what companies may think are settled expectations:

However, it is entirely appropriate, and indeed necessary, that our application of the Federal Power Act's undue discrimination standard evolve over time and adapt to changing circumstances in the industry. Our prior willingness to tolerate the use of monopoly

prudent-investment tests, as well as from competition from government ownership, fuel substitutes, and self-generation. Another important feature of the compact is the continuous rebalancing that takes place to accommodate changing conditions in the industry.

Id. at 69.

Rose found a "wide variation" in whether the costs of an obsolete plant or abandoned plant could be recovered. *See id.* at 64-68. He concluded that "[t]he examination of the origins and content of the regulatory compact finds little basis for the claim that utilities are always entitled to cost recovery" and that a "strong case" is that such treatment would be inconsistent with this history. *See id.* at 69.

Though utilities portray the regulatory bargain as if it were as old as the hills, it is more correct to say that businesses' hope for government protection is as old as the hills. Actual protection is harder to find. A mid-Eighties NRRI report that tried to find the roots for the "social contract" concept, at a time when the basis for telephone regulation was being debated, found that only one of eight leading textbooks from the prior four decades had used the term "social contract." DOUGLAS JONES, A PERSPECTIVE ON SOCIAL CONTRACT AND TELECOMMUNICATIONS REGULATION 9 (National Regulatory Research Inst. 87-5, 1987).

379. Order No. 888, 61 Fed. Reg. at 21,543-45. The Commission does not say whether these changes were foreseeable, but it conspicuously fails to blame utilities for building plants whose scale appears very inefficient today. *See id.* Further muddying the question of responsibility is the implication of FERC's quick insertion that the "construction of nuclear and other capital-intensive baseload facilities [was] actively encouraged by federal and some state governments." *Id.* at 21,543. The fact that governments may also have read the market wrong does not (or at least should not) absolve utilities entirely for their decisions, though the fact that regulators also guessed wrong may be evidence that the changes were not foreseeable. On the other hand, the wide variation in average costs and the type of generation shows that most companies guessed correctly, and that the problems are concentrated in a minority of large and influential utilities. The variability supports the idea that contemporary problems were foreseeable. Sorting out these issues would be difficult and inexact, but it is much better than the alternative FERC-and-CPUC approach, which ignores the issue of responsibility altogether. As this Article discusses in the next section, foreseeability is not the market's test for who should accept the costs of economic mistakes, but it too often is the regulatory test under the prudent investment standard. *See infra* Part V.A.3.

380. *See* 61 Fed. Reg. at 21,546.

power over transmission to maintain and aggregate the utility's market power over generation occurred in the context of an industry structured largely as vertically integrated regulated monopolies that supplied all facets of utility service . . . as a single monopoly service.³⁸¹

Fifty years of protected markets and largely secure rates may have dulled utility recollections, but the principle that the fact of regulation is not insurance against all changes in regulation is an old principle. In one of the first major natural gas decisions, *Federal Power Commission v. Hope Natural Gas Co.*,³⁸² the Supreme Court affirmed a Federal Power Commission decision to switch from one ratebase methodology to another.³⁸³ *Hope* substituted prudent-cost ratemaking for the prior fair value standard.³⁸⁴ The Supreme Court agreed that the Commission did not have to use any particular rate formula, freeing FERC to switch to other approaches that better serve consumer welfare.³⁸⁵ It was the overall result, not the route taken, "not the theory but the impact of the rate order," that matters.³⁸⁶ The Court took pains to remind *Hope* that "just and reasonable" is a deliberately broad mandate, and that Congress had rejected a formula-like "legitimate cost" standard.³⁸⁷ As the Court later said when upholding the Commission's shift from individual to area rates in natural gas, what matters in changing rate structures is that the result falls into a "zone of reasonableness."³⁸⁸

In *Hope*, pipelines argued that depreciated cost would not give them a fair return.³⁸⁹ The Court left this judgment to the Commission, whose decision "is the product of expert judgment which carries

381. *Id.* at 21,568.

382. 320 U.S. 591 (1944).

383. *See id.* at 618-19.

384. The Commission rejected both the prior replacement cost measure and what the Court in *Hope* had called trended original cost, or original cost with additions for later expenditures. *See id.* at 596-98. *Hope Natural Gas Company* was fighting to recover either a reproduction cost it put at \$97,000,000, or a trended original cost of \$105,000,000. *See id.* at 596. The Commission's depreciated original cost came to \$33,712,526. *See id.*

385. *See id.* at 612.

386. *See id.* at 602.

387. *See id.* at 600. For the flexibility of this standard, see *Colorado Interstate Co. v. Federal Power Commission*, 324 U.S. 581, 601 (1945) ("We do not say that the Commission lacks the authority to depart from the rate-base method. We only hold that the Commission is not precluded from using it.")

388. *Permian Basin Area Rate Cases*, 390 U.S. 747, 767, 822 (1968) (citation omitted); *see also Power Comm'n v. Natural Gas Pipeline Co.*, 315 U.S. 575, 586 (1942) ("The Constitution does not bind rate-making bodies to the service of any single formula or combination of formulas. Agencies to whom this legislative power has been delegated are free, within the ambit of their statutory authority, to make the pragmatic adjustments which may be called for by particular circumstances.")

389. *See Hope*, 320 U.S. at 607-09.

a presumption of validity.³⁹⁰ The Court also cited its holding in the *Natural Gas Pipeline* case that “regulation does not insure that the business shall produce net revenues.”³⁹¹

Thus, it is an old principle of American regulation that the regulated company does not have a vested, enforceable right in a specific regulatory framework. Companies always have been on notice that regulation will not shield them from competition if their performance is markedly sub-par. The penetration of competition did not occur often, in part because with regulation a national phenomenon it was hard to find competitive benchmarks,³⁹² but the risk that very uneconomic costs would jeopardize rate recovery always was there, even if investors and utilities preferred to ignore it.

390. *Id.* at 602.

391. *Id.* at 603 (quoting *Natural Gas Pipeline*, 315 U.S. at 590).

392. One of the reasons that Franklin Roosevelt supported public power as vigorously as he did was to make sure that private firms could be held to the standards of well-run public power. See ARTHUR SCHLESINGER, *THE CRISIS OF THE OLD ORDER* 390 (1957) (public authority projects were to serve as “a yardstick with which to measure the cost of producing and transmitting electricity”); see also EIA UPDATE, *supra* note 10, at 6 (discussing New Deal boost for public power).

In the headlong rush to get government out of economic relations, the most doctrinaire pressure groups want to abolish all government-supported power entities. See THIERER, *supra* note 3, at 7, 17 (attacking federal power as “nothing more than old-fashioned redistributionist programs”); cf. Black & Pierce, *supra* note 175, at 1385 (claiming that bureaucratic inefficiency of federal power “squander[s]” much of the cost advantage that comes from tax-exempt status).

Joskow and Schmalensee’s early 1980s’ study of the industry mentioned “yardstick competition” as one source of market pressure that is “frequently discussed,” but argued that at least “until recently,” agencies “do not appear to have made much use of comparative information.” JOSKOW & SCHMALENSEE, *supra* note 175, at 21. They cited the “enormous difficulty” in comparing utilities, and found the benefits of this kind of competition “uncertain.” See *id.* at 22. They urged a “reevaluat[ion]” of the subsidies given to publicly owned utilities and a “clear policy regarding the role that such entities should play in wholesale power markets.” *Id.* at 219; see also *id.* 202-03 (observing that subsidies may be undesirable, but power agencies that behave “as if they were operating in a competitive market” may provide “important competitive constraint”).

After decades of mixed regulation of private firms, the benchmark that seems to have spurred deregulation was the variability among the costs of private firms, not the gap between them and public power. At least for states like California, the apparent inefficiency of their private but regulated utilities became insupportable. See EIA UPDATE, *supra* note 10, at 35 (“[L]arge differences in the retail prices of electricity have continued to motivate some to advocate expanded restructuring,” with the “main thrust” for deregulation so far having come from “large industrial users of electricity who, in some areas of the United States, have been burdened by high electricity prices while their competitors in other areas pay far less for a kilowatt hour of electricity”). With a bit of understatement, the EIA adds that it “is probably not coincidental that many of the States that are leaders in the restructuring of retail electricity markets are among the States with high average revenues.” *Id.* at 36.

Of course, utilities in these states argue that their higher prices reflect their states’ special, additional regulatory constraints and other factors in the physical problems of providing power in states beset with geographic challenges. One of the initial ways to determine whether the deregulated market is competitive, in addition to the real price level, will be whether the variability of costs (and rates) narrows between markets. (To the extent that there are real cost differences in providing power between markets, though, homogenous prices across the country after open access could reflect continuing power of some electricity suppliers.) The convergence of natural gas prices seems to be one of the early signs of success in that industry’s deregulation. See CRANDALL & ELLIG, *supra* note 3, at 12.

The history of energy regulation includes other changes that pushed industries back toward a more competitive position. In electricity, the starkest example is *Otter Tail Power Co. v. United States*.³⁹³ In *Otter Tail*, the Supreme Court held that a regional power company serving a 465-town area in Minnesota and the Dakotas had to allow its customers to establish municipal power companies and then use Otter Tail's lines to wheel power from other, cheaper sources.³⁹⁴ Municipalization did not sweep the industry, but it was one way in which electric utilities were exposed to competitive risks.³⁹⁵ This risk predictably would increase as the spread in electricity prices increased.³⁹⁶ Without open access, price pressures would force municipalities to seek other routes to escape overpriced power. Another illustration

393. 410 U.S. 366 (1973).

394. See *id.* at 381-82; see also COMMENTS OF VT. DEP'T OF PUB. SERV. 6 (Dec. 9, 1994) (unleashing competition "dates back more than twenty years to the Supreme Court's decision in *Otter Tail Power Co.*"); *id.* at 10 (citing *Otter Tail* for Federal Power Act's "overriding policy of maintaining competition"); REQUEST FOR REHEARING OF VT. DEP'T OF PUB. SERV., *supra* note 188, at 38 (stating that the "reasonable expectation" test never could be met given the *Otter Tail* decision). The *Otter Tail* opinion also included one of those cautious hedges that American judicial opinions so commonly produce. The Court added that it was not suggesting that the trial courts "should be impervious to Otter Tail's assertion that compulsory interconnection of wheeling will erode its integrated system and threaten its capacity to serve adequately the public." *Otter Tail*, 410 U.S. at 381. So utilities may argue that *Otter Tail* represents the principle that uncompensated, minor customer defections are allowed, but not significant ones. As open access shows, however, this is a dangerous and incorrect reading of the more general power agencies have to renovate the regulatory edifice. See generally ROSE, *supra* note 3, at 44-45 (discussing constant risk that customers would depart or turn to municipalization); *id.* at 62-64 (discussing traditional risk from municipalization, alternative fuels, and major technological change).

395. The electricity industry has grown from one that had room for small private producers and municipal producers to one in which large private companies dominate. See EIA REPORT, *supra* note 15, at 3. In 1995, the 2,014 state and municipal utilities produced only 11% of generation, while the 10 federal power systems, which rely mainly on hydroelectric power, generated another 9%. See *id.* at 12. Public utilities have not avoided the current cost problem, and municipal utilities have their own substantial stranded cost exposure, \$33 billion by one report. See RDI REPORT, *supra* note 24, at 1.

396. In Order No. 888-A, one of FERC's justifications for its great solicitude for pass-through was that it was *not* proposing similar treatment for self-generation, as well as other traditional forms of bypass like cogeneration and bypasses that did not require open access transportation. See Order No. 888-A, 62 Fed. Reg. at 12,381-82. It claimed that natural gas had been different because there, "most of the former bundled customers" had left and a competitive gas commodity market had developed. See Order No. 888, 61 Fed. Reg. at 21,636. In addition, FERC cited the falling market price for gas as a "market failure" that did not exist in electricity. See, e.g., Order No. 888-A, 62 Fed. Reg. at 12,393-94. Given the expected gap between the costs of utilities with stranded power and market prices, it is hard to see why the Commission does not think that electricity has a similar problem with sharply dropping market prices.

This argument is too static as well. On the one hand, the evolving gas market followed two governmental actions, the NGPA and Order No. 380, so it is unfair to assume that the market changes occurring just before Order No. 436 were only "market" driven. On the other hand, the cost differential between certain large utilities' power and the feasible alternatives is so great that, had Congress and FERC not moved toward open access, it is reasonable to expect that pure market forces would have created a qualitatively greater degree of "traditional" bypassing like municipalization.

that electric utilities remain at risk for uncompetitive decisions is the disallowance of billions of dollars in overbuilt, canceled, and abandoned nuclear plant costs in the Eighties.³⁹⁷

Electric companies and their shareholders should have learned the same lesson by looking across the industry border at their natural gas counterparts. There was the switch of ratebase methodology in *Hope* and many other sea changes; witness the jump from unregulated wellhead prices to regulated individual wellhead prices in 1954, to regulated area rates supplemented by vintaging in the Sixties, to national rates in the Seventies, and finally to statutorily vintaged rates in the NGPA, which phased-in deregulation at the same time that it imposed a statutory rate schedule.³⁹⁸ The Commission repeatedly stranded gas costs without compensation as it shifted among these rate structures.³⁹⁹ The FPC and FERC have buffeted the gas and electricity markets with periodic major structural changes. If regulated firms run their affairs in a way that becomes markedly inefficient as the market develops, large-scale changes in industry structure should be no surprise.

These losses were not peculiar to energy industries. By the late Seventies, electric companies and their investors could observe uncompensated losses spreading from trucking to airlines, from telephone service to banking. For instance, Alfred Kahn, who has urged full pass-through of electricity stranded costs while representing EEI in its Order No. 888 filings, did not subsidize stranded costs when, as Chairman of the Civil Aeronautics Board, he aggressively removed airline market barriers.⁴⁰⁰ Some deregulations, like the judicially-

397. For a general discussion of the issues surrounding nuclear cost disallowance, see Pierce, *supra* note 60. FERC counted \$22.4 billion in disallowed costs between 1985 and 1992. See Order No. 888, 61 Fed. Reg. at 21,544 & n.19. The EEI put the number for the Eighties at \$16 billion. See EEI COMMENTS, *supra* note 23, at 12-13.

398. For a discussion of regulated gas pricing and its problems, see Richard Pierce, *Reconstituting the Natural Gas Industry from Wellhead to Burnertip*, 9 ENERGY L.J. 1, 8-16 (1988), Richard Victor, *Contrived Competition* ch. 3 (1994), and Stephen Breyer, *Regulation and its Reform* 244-53 (1982). For present purposes, what is important about this history is not how well or ill-advised was the experiment in government control, but the notice that the changes in regulatory structure gave investors in regulated industries that their companies might be subject to occasional, but large-scale, changes in market structure.

399. Some expectancies were protected in the gas rate changes, but often only because of special contract provisions. For instance, producers secured performance of their expectancy in regulated rates after deregulation if their contracts maintained those rates upon deregulation. For a brief discussion of these price-floor clauses, see McArthur, *supra* note 305, at 362 n.30.

400. For a short summary of Kahn's extraordinarily influential role in the deregulation movement, see DERTHICK & QUIRK, *supra* note 64, at 69-73, 88-90.

In the EEI's economic report, whose authors include Kahn, airlines are distinguished as an industry in which "there is clear evidence that the cartelization of those industries under regulation sheltered inefficient work practices and inefficient route configurations and employ-

spawned divestiture of AT&T, were more formally linked to past discrimination than electricity deregulation (and one does not expect compensation for companies committing antitrust violations).⁴⁰¹ Nonetheless, even if participants in electricity did not *expect* that the same risk would fall on them (i.e., did not view uncompensated deregulation as the likeliest outcome), it was not unforeseeable.⁴⁰²

Hope and other cases establish that utilities have a constitutional right to an *opportunity* to recover legitimate costs. But this interest is not absolute. It does not freeze regulatory structures; it does not mean that outside market changes cannot undermine regulated firms—it is an opportunity that must be balanced against consumer needs for “just and reasonable” rates, the NGA’s and FPA’s guiding duty. The limits of firms’ opportunities were perhaps best put in *Hope*:

The rate-making process under the Act, i.e., the fixing of “just and reasonable” rates, involves a balancing of the investor and the consumer interests. . . . [T]he investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. . . . [T]he return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.⁴⁰³

In upholding a measure of ratebase that was below what *Hope* sought, the Court explained, “[r]ates which enable the company to operate successfully, to maintain its financial integrity, to attract capi-

ment of equipment.” EEI ECONOMISTS’ REPORT, *supra* note 36, at 21. It may be that electric companies did not have similarly inefficient route configurations (although we will see what changes competition brings to power routes and pools), but it is striking that the three economists do not consider whether electric companies were inefficient in their work practices or in their “employment of equipment,” the very place where one would expect an economic analysis to begin.

401. For a discussion of the differences between telephone deregulation and electricity deregulation, see CPI REPORT, *supra* note 5, at 39-40 & app. B.

402. Not only is the claim to protection against any market contingency a claim of entitlement that generally conservative utility managers would reject quickly if they heard it from, say, the poor or unemployed, but it is also a quest for an entitlement that very few firms or industries have received. As the *Wall Street Journal* editorialized, in language cited with approval by the Heritage Foundation, “Why should utility investors be uniquely indemnified against change? That favor was not forthcoming to the owners of airlines, railroads, and natural gas and trucking companies.” THIERER, *supra* note 3, at 25 (quoting Holman W. Jenkins, *Electricity Producers Run Screaming from Reality*, WALL ST. J., May 14, 1996, at A21).

403. Federal Power Comm’n v. *Hope National Gas Co.*, 320 U.S. 591, 603 (1944), (*citing Missouri v. Public Serv. Comm’n*, 262 U.S. 276, 291 (1923) (Brandeis, J., concurring)).

tal, and to compensate its investors for the risks assumed certainly cannot be condemned as invalid, *even though they might produce only a meager return on the so-called 'fair value' rate base.*"⁴⁰⁴

In *Duquesne Light Co. v. Barasch*,⁴⁰⁵ a Supreme Court case arising from disallowed nuclear plant costs, the Pennsylvania Supreme Court returned to the question of how much regulation really guarantees cost recovery.⁴⁰⁶ A Pennsylvania utility had asked to recover \$35 million in planning expenses for seven abandoned plants.⁴⁰⁷ The Pennsylvania commission had approved recovery, but its decision was reversed by statute.⁴⁰⁸ The utility attacked the denial of recovery as a taking of its property.⁴⁰⁹

In affirming the Pennsylvania Supreme Court and upholding the statute, the United States Supreme Court spoke generally to reliance on a rate scheme. The Court noted that a relevant factor in setting a rate is the risk investors expect for a given type of investment.⁴¹⁰ For utilities, the Court stated that this risk includes regulatory change: "The risks a utility faces are in large part defined by the rate methodology because utilities are virtually always public monopolies dealing in an essential service, and so relatively immune to the usual market risks."⁴¹¹ This language carries varying connotations. On the one hand, if utility rates incorporate immunity to certain risks, presumably their return can be lower than otherwise (because of the greater safety), but regulators should honor the reliance interest where they have promised a return. The overall risk may be lower than that of competitive firms even if it does not include absolution for long-term failures.

On the other hand, the fact that utilities should know they are subject to *regulatory* risk, which includes changes in regulatory format and even deregulation, should mean that they will not be entitled to recover for such changes, or, at least, not for structural changes in regulation itself. Operating in a regulated industry creates a buffer against most short-term market risks, including against easy entry by competitors and fluctuations in rates. At the same time, it creates a risk of occasional but large and unpredictable changes in basic structure. The more controlled structure of a regulated market, with the

404. *Id.* at 605 (emphasis added).

405. 488 U.S. 299 (1989).

406. *See id.* at 301-02.

407. *See id.* at 302.

408. *See id.* at 303-04.

409. *See id.* at 305.

410. *See id.* at 314-15.

411. *Id.* at 315.

hierarchical nature of its firm/agency tie, should warn firms that major structural change will be easier to implement when an agency wants to effectuate it.

The Supreme Court did describe the extreme point where regulated companies can rely on the regulatory framework, at least in dictum. "[A] State's decision to *arbitrarily switch back and forth between methodologies* in a way which required investors to bear the risk of bad investments at some times while denying them the benefit of good investments at others would raise serious constitutional questions."⁴¹²

This language does not suggest that electric utilities should be guaranteed full recovery of stranded costs. One reason is that deregulation, with its determination that the failures of regulated firms require a return to the market, is not just another change among regulated methodologies. It is a return to competition grounded on dissatisfaction with regulated firm performance. Another is that FERC is not just shifting back and forth among methodologies to dump the largest possible loss on investors. Regulated companies do not have the same interest against a decision to expose them to competition that they may have in cost recovery while their industry remains regulated.

3. *Investments have to be used and useful*

A third problem with claiming a regulatory cost guarantee is that prudence is not the only threshold for cost recovery. In natural gas, for instance, the Commission assumed the power to order a pro-competition remedy even if the utilities' decisions were sensible

412. *Id.* (emphasis added). The other limit on rate changes is a judicial creation, the filed-rate doctrine, which prohibits retroactive changes in rates. This doctrine arose to protect consumers: it "bars a regulated seller of natural gas from collecting a rate other than the one filed with the Commission and prevents the Commission itself from imposing a rate increase for gas already sold." *Arkansas La. Gas Co. v. Hall*, 453 U.S. 571, 578 (1981); see also *Columbia Gas Transmission Corp. v. FERC*, 831 F.2d 1135, 1141 (D.C. Cir. 1987); *Electrical Dist. No. 1 v. FERC*, 774 F.2d 490, 493 (D.C. Cir. 1985) (discussing need for predictability that drives the doctrine).

The lead filed-rate case is *Keogh v. Chicago & Northwestern Railway Co.*, 260 U.S. 156 (1922), a railroad case. The filed-rate doctrine establishes one way in which the regulated firm (as well as its customers) can rely on the administrative framework. Rates already collected generally cannot be challenged. See *id.* at 163. Thus, rates already paid for old utility plants should similarly be protected by the doctrine. In Order No. 500, the initial "deficiency allocation" formula for passing through costs was based on prior purchases. The Court of Appeals for the District of Columbia struck this mechanism as a violation of the filed-rate doctrine. See *Associated Gas Distribs. v. FERC*, 893 F.2d 349 (D.C. Cir. 1989).

Though the filed-rate doctrine protects rates already collected (and not rates approved but not yet collected), it is a mixed blessing. By establishing a line beyond which the Commission cannot go, it implicitly confirms that an agency can destroy settled expectations of utilities going forward if necessary to foster competition, at least up to the point of due process and takings concerns.

when made, but were overcome by events. In ordinary prudence review, a commission examines whether the utility acted prudently when it invested *even if the market has proven the decision wrong*.⁴¹³ This is in contrast to the "fair value" test, in which companies lose money if their investments turn out to have little or no value over their lives.⁴¹⁴

That prudence is a necessary, but not sufficient, condition for cost

413. See *Duquesne Light Co.*, 488 U.S. at 316 (test for prudence compensates for investments at "actual cost when made (their 'historical' cost), irrespective of whether individual investments are deemed necessary or beneficial in hindsight"); Pierce, *supra* note 60, at 511-12 (listing as one reason that prudent investment test "almost always" results in approving costs that "utility decisions are rarely blatantly imprudent when viewed in light of the knowledge and alternatives reasonably available to the utility's management at the time of the decision and the overall complexity of the considerations involved"). For the imbalance of resources between company and regulator, see *supra* note 359 and accompanying text.

414. See *Duquesne*, 488 U.S. at 308-09. In practice, even the prudence rule does not work quite as announced. See Pierce, *supra* note 60, at 512. Though Richard Pierce may be right that in application the test has been very utility-friendly, the further the market strays from a decision, the easier it is for regulators to find imprudence lurking behind decisions that turned out badly. The passage of time has a wonderful way of exposing the missing components of a company's analysis. It perhaps is only the tendency to insert full investment costs into a rate-base early in an investment's life that prevents hindsight reasoning from being a more potent threat to utility underperformance. The treatment of nuclear plant costs shows how the temptation to disallow spectacularly uneconomic investments is hard to resist.

Prudence timing arguments lead to funny debates. Even if the issue is narrowed to prudence at the moment of investment, the battle over an early mistake only arises if the later unfolding of the market outstrips the early decision. Companies do not have to pay up if their investments do better than expected, though profits above the intended level can hurt them in their next rate hearing. In an adverse market, in contrast, prudence should become a judgment about the effectiveness with which the utility's historical decision handled the risk that has occurred. It may be only regulators' messy involvement in the investment decision that has made this test so relatively passive.

The argument that how a power plant actually fares, relative to the market, should be irrelevant to its prudence may be akin to arguments in fraud cases that the actual outcome of an investment is irrelevant to whether it was correctly portrayed as safe to investors at the outset. For instance, in a major oil and gas fraud case, the defending operating company, Davis Oil Company, moved to exclude all evidence "of the ultimate financial or drilling results of AEI's investments with Davis Oil" for this reason: "The simple fact is that the value of a prospect changes dramatically, either upwards or downwards, as a result of the drilling of a well. The actual outcome of the well is *irrelevant* to the speculative value that a purchaser would pay for the opportunity to drill the well . . ." Davis Oil's Memorandum in Support of Motion in Limine To Exclude Evidence of the Ultimate Financial or Drilling Results of AEI's Investments with Davis Oil at 4-5, *A.E. Investments, Inc. v. Davis Oil* (D. Colo. 1990) [hereinafter *Davis Oil's Memorandum*] (emphasis added). Evidence of the property value after the end of 1982 (barely a year after the drilling of the investor's first well) "is simply too remote and unfairly prejudicial to be allowed." *Id.* at 9. "[W]here the results of drilling have been disappointing, the jury will find it difficult, if not impossible, to consider the initial opportunity for profit that determines the true value of an undrilled prospect." *Id.* at 5.

A second reason that prudence alone does not determine recovery is that it is only one of a regulated firm's hurdles. Many regulators deny recovery for portions of an investment that turn out to be neither "used or useful." See Pierce, *supra* note 60, at 512 (defining "used and useful" test). This standard lets regulators freely judge the usefulness of a plant in the market as it has developed, rather than its wisdom at the moment of investment. See *infra* note 416 and accompanying text.

The ability of regulators to make utilities pay the price of their mistakes under either test would seem confirmed by the heavy penalties many utilities bore for idled nuclear plants.

recovery—that being put in a ratebase is not insurance—is the unambiguous lesson of Order No. 528-A. In that Order the Commission reiterated the long-standing rule that costs must be for “used and useful” investments as a second, independent requirement of ratemaking.⁴¹⁵ Pipelines had claimed an entitlement to payment for all prudent costs, but FERC pointed out that this claim ignored two key regulatory principles. One, the Commission does not guarantee costs “which market conditions would not otherwise permit [pipelines] to recover.”⁴¹⁶ Two, ratepayers need only pay the “legitimate costs of providing service.”⁴¹⁷ “Legitimate” means not wildly out of line with market standards, not the historic prudence of the ratemaking world.⁴¹⁸

In general, regulated firms are to bill for “used and useful” facilities. The focus of the “used and useful” test is “whether the plant is actually used and useful to the utility in providing regulated services.”⁴¹⁹ For instance, this test ordinarily excludes a plant that was not physically operable, incomplete plants, or those that had become ob-

415. See Order No. 528-A, 54 F.E.R.C. at 61,304.

416. *Id.* at 61,303.

James Hoecker published a detailed article on the background to “used and useful” as a ratemaking principle while he was FERC’s general counsel. See James J. Hoecker, “Used and Useful”: *Autopsy of a Ratemaking Policy*, 8 ENERGY L.J. 303 (1987). Starting with the comment that used and useful “has a certain immutable friendliness and clarity,” *id.* at 303, he argued that ever since *F.P.C. v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) made the overall result (not the theory) the test for FERC procedures, “used and useful” had become “simply one of several permissible tools of ratemaking, one that need not be, and is not, employed in every instance.” *Id.* at 309 (quoting *Jersey Central Power & Light Co. v. FERC*, 810 F.2d 1168, 1175 (D.C. Cir. 1987)). Hoecker’s article is a good tonic against the common error, particularly by those seeking cost recovery, of trying to make any single test the only test for rate recovery. See *id.* (arguing that prudent investment test is “not the last resort if agencies suspect excessive returns”). Contrary to this common error, “used and useful” is an independent requirement, and it is one reason that prudent costs have not become “the prevailing rule.” See *id.* at 310 (quoting Democratic Cent. Comm. of D.C. v. Washington Metro. Area Transit Comm’n, 485 F.2d 786, 801 (D.C. Cir. 1973)). (It is perhaps more accurate to write, not “the only rule.”). Hoecker believes that the doctrine should be used even “to exclude substantial prudent investments from rate base or cost of service . . . if a reviewing court has a basis for believing that such a countervailing public interest is being served.” *Id.* at 331.

For a much more limited reading of the “used and useful” test, see JOSEPH KALT ET AL., *supra* note 300, a paper commissioned by Boston Edison. In the authors’ view, facilities generally have satisfied the “used” prong of the test if they are “available to be utilized,” *id.* at 29, a test that virtually all stranded electricity costs would satisfy. They believe the “useful” prong has “[h]istorically . . . prevented utilities from putting assets unrelated to providing service, such as abandoned plants or investments not germane to the electricity business, into the ratebase.” *Id.* This is a narrower reading of energy history than Hoecker’s. The authors’ potential overestimation of the protection that the old regulatory system allowed may be explained in part by the sponsorship of their project; it would have been hard for these authors to come out with a report, on a job commissioned by a major utility, stating that utilities should have to absorb most or all of their stranded costs.

417. Order No. 528-A, 54 F.E.R.C. at 61,303.

418. See *supra* note 413.

419. *Pierce*, *supra* note 60, at 512.

solete.⁴²⁰ The “used and useful” test thus looks at assets in the evolving market and does not require the “finding of fault” that marks the prudent capital test.⁴²¹

“Used and useful” and prudent-cost formulas are not substitutes.⁴²² That each can exclude costs from the ratebase independently can be seen from the fact that a plant may be useful, but its costs have not been incurred imprudently.⁴²³ Alternatively, a plant may have been prudent if prudence is judged at the moment of inception, even if it is no longer useful.⁴²⁴ The “used and useful” rule has excluded a wide range of assets, including experimental and abandoned facilities, real estate held for later use, interest and taxes accruing during suspended construction, and material intended for but not used in plant construction.⁴²⁵ In natural gas, FERC has used the doctrine to deny recovery of projects that failed before certification; synthetic gas projects that did not require certification; excess capacity from “improvident venture[s]”; retired plant; some research and development expenditures; and expenses “entrepreneurial in nature.”⁴²⁶ “The costs of the failed gas supply projects embarked upon during the gas shortages of the 1970s were generally allocated to investors.”⁴²⁷ On the other hand, though “highly speculative or exotic gas supply projects” tended to be “left on the doorstep of investors,” the Commission has allowed recovery of more ordinary operating risks like those in gas storage projects and drilling of dry holes.⁴²⁸

One reading of the “used and useful” test is that it generally functioned to deny recovery of investments that did not work at all, or that did not function when built.⁴²⁹ But as the listing above shows, the full list of excluded uses is broader. In addition, even though the test has been applied in the quasi-political atmosphere that sur-

420. *See id.*

421. *See id.* at 513.

422. *See id.* at 513-14.

423. *See id.* at 513.

424. *See id.*

425. *See Hoecker, supra* note 416, at 313 (discussing examples). One problem was reconciling the “used and useful” test with legitimate expenses that primarily would benefit later consumers. Commissions did not want to penalize prudent inter-generational planning. The construction-funding problems in this area were channeled into the standards set forth in Order No. 555, 56 F.P.C. 2939 (1976), *aff'd sub nom. Oglethorpe Elec. Membership Corp. v. FERC*, 574 F.2d 637 (D.C. Cir. 1978), *cited in Hoecker, supra* note 416, at 313-14.

426. *See Hoecker, supra* note 416, at 315-16.

427. *Id.* at 321.

428. *See id.* at 321-22. Hoecker notes that “recovery of such failed plant costs receives more generous treatment when an electric generating plant is involved,” with one reason being FERC’s power to certificate natural gas plants but not electric plants. *See id.* at 322; *see also id.* at 314 n.53 (explaining FERC’s jurisdictional distinction between electric and gas utility projects).

429. *See generally* KALT ET AL., *supra* note 356.

rounds agency action, and so may not always have been pushed to its full potential, the existence of the doctrine and its potential application always have represented the risk that major investments might not receive ordinary ratebase treatment if time showed that they were not needed.

4. A regulatory "contract" would be subject to contract defenses

Regulatory bargain claims rest on the assertion that there is an enforceable bargain between agencies and electric companies.⁴³⁰ A favorite way to jazz up the claim into a full guarantee for stranded costs is to push the metaphor of regulation as contract.⁴³¹ Thus, some describe the regulatory tie as an implicit contract whose termination requires compensation.⁴³² They redefine deregulation as a breach of contract, with payment of stranded costs treated as the expectations damages due under contract law.⁴³³

One way to assess this claim is to take the contract metaphor seriously. Within the realm of contract, there are serious problems of capacity, agency, vagueness, and missing terms for anyone trying to justify a guarantee of full recovery. For instance, the history of the regulatory bargain shows that Congress did not give FERC *carte blanche* to tie the fate of customers around the country to the full life

430. See COMED COMMENTS, *supra* note 25, at 8 (analogizing public utilities' agreements with regulators to private contracts).

431. See *id.* (using contract theory of expectation damages to justify claim for stranded costs).

432. See *id.* at 1 (discussing the "quid pro quo" in compact, as if it was an ordinary contract with consideration on both sides). ComEd refers consistently to the "compact" as a "regulatory contract." *Id.* at 1, 6 (emphasis added). This semantic distinction lets ComEd's economists argue that, "like a private contract, [the compact] is a negotiated economic agreement between utilities and regulatory commissions," *id.* at 17, and like private contracts, it has "implied features." *Id.* at 20. Predictably, one feature is a guarantee of stranded cost recovery. From here stems the "general understanding between the regulated firm and the regulatory authority . . . that the main components of the regulatory apparatus remain in place even though economic changes occur." *Id.* at 26.

Though the EEI's prose is not quite as sweeping on this point, the trade group means the same thing when it calls the regulatory compact a "reciprocal arrangement." EEI COMMENTS, *supra* note 23, at 2.

433. As one would expect, ComEd, which most expressly used the contract metaphor, also advanced most strongly the "reasonable expectations" argument. Its economists argued (as properly trained economists who believe in the "efficiency theory of breach" so often do) that even unilateral breach is acceptable "if ratepayers can be made better off without denying just compensation to the utility's investors." COMED COMMENTS, *supra* note 25, LAW AND ECONOMICS REPORT, at 43. This assertion is just Pareto optimality rephrased. See THUROW, *supra* note 69, at 218-19 n.1 ("Economic theory avoids equity decisions by retreating into what is called Pareto efficiency—a fancy term for 'more is better than less.' . . . But since there is always someone who is worse off after any change, nothing is Pareto-efficient in the real world."). The catch, of course, is that if stranded costs are treated as if the guarantee really was written into a contract (or fairly implied in what was written), deregulation, which has become "a unilateral breach of the regulatory contract by regulators," requires "payment to utilities for their expectations damages." *Id.* The damages turn out to be (what else?) stranded costs.

of whatever assets utilities decided to buy. There is a problem of contract capacity.⁴³⁴ It is unclear whether the real "bargain" is between the agency and the firm, or the firm and its much larger, unorganized customer base.

This vagueness of parties spills over into agency problems. In spite of the consumer groups that exist in many states, neither consumer groups nor agencies have the resources to compete with utilities in their planning function. Only utilities can afford to maintain large technical and managerial staffs and to buy substantial expert reports in the ordinary course of business; as agencies currently are staffed, none could replicate or even fully test the hundreds of investment plans utilities have carried out in the last few decades.⁴³⁵ Though agencies often reviewed and, at times, approved or modified these plans, they were not the real architects of the current power infrastructure.

Moreover, if power company investments are to be examined as a product of multi-party decisionmaking, the expectations of the companies have to be reconciled, in one way or another, with those of the other parties. Utilities and their shareholders indeed may have hoped, and even "expected" (if that means what they thought was the most likely outcome) that they would recover all of their investments.⁴³⁶ At the same time, as they built nuclear plants and the largest of generating units, these companies did not publicize the risk of the kind of overruns that have in fact occurred.⁴³⁷ If they had, so that

434. See JONES, *supra* note 378, at 13 (discussing whether telephone bargain was with agency or customers).

435. Cf. *supra* note 359 and accompanying text (discussing imbalance between utility resources and those of customers and regulatory commissions).

436. When dealing with expected risks it is a fallacy to equate the deregulation that has occurred with the risk that such restructuring would happen—today its probability is 100% because it is history, but that was not the world as investors faced it. See *infra* note 470 and accompanying text (describing court decisions and regulatory changes that should have alerted investors to risk).

437. Although they warn readers against judging blame and generally favor stranded cost recovery, Kalt et al. admit that the regulatory approvals that utilities received for large plants never were seen as protection for the kind of overruns that have plagued so many nuclear plants:

First and foremost, there is some question as to who broke the regulatory bargain. When they agreed to allow a rate of return on all prudently incurred costs, regulators never dreamed that utilities would experience cost overruns of several billion dollars [today, losses in the hundreds of billions].

KALT ET AL., *supra* note 356, at 51. Not only did "no one" expect billion-dollar overruns, but "the consumer was promised the new capacity at a price two or three times lower than the actual price." *Id.* at 58-59. The authors understate the resulting problem: "The idea that he should now be willing to pay full price for this new capacity in lieu of having the utility forego the opportunity to charge higher prices for their older plants—which the consumer perceives as having already been paid for—would be a hard sell." *Id.*; cf. IPALCO ENTERS., *supra* note 280, at 23 (observing that firms now seeking nuclear stranded cost recovery "originally argued

electric companies and consumers really bargained until reaching the law's meeting of the minds on decades-long contracts that allocate the risks of enormous, open-ended investments, consumers almost certainly would have gained at least some traditional risk-shielding clauses—price indices, price caps, quantity limitations, and force majeure clauses.⁴³⁸ Consider an investment like PG&E's Diablo Canyon plant. On December 31, 1995, PG&E listed the book value of Diablo Canyon at \$4.8 billion, while the net book value of all its other generating assets was just \$3.1 billion.⁴³⁹ PG&E incurred a huge risk by not diversifying its power sources. The true reason that its customers do not have contract protection against this concentration of risk is that there is no overarching regulatory contract; neither PG&E nor other electric companies publicized these risks.

Moreover, the length of any utility/consumer contract would have been limited. The parties would have had to treat the risk that prices can change dramatically in long-term contracts. The greater the term, the greater the incentive for consumers (whether bargaining directly or through an agency) to require other protections, be it by price, by quantity, or in some other contract clause.

Like electric companies, the public had express and implied expectations.⁴⁴⁰ One expectation was that any "compact" could change over time if needed to serve consumer welfare.⁴⁴¹ Regulation would adjust so that electric companies could not dump wildly inefficient

that their high sunk capital costs would be offset by low incremental running costs").

438. See, e.g., JONES, *supra* note 378, at 18 (arguing that social contract would have to select price base and index for long-term telephone pricing); THIERER, *supra* note 3, at 26 ("And even if ratepayers had signed such a deal, a rational contract would have included the right to opt out once cheaper service became available."). These terms are very familiar to utilities because they are the kind of clauses that appeared in gas take-or-pay contracts and other long-term utility fuel-supply contracts.

439. See PG&E COST RECOVERY PLAN, *supra* note 257, App. C, at 16.

440. See NARUC COMMENTS, *supra* note 190, at 25-26 (discussing public expectations for social programs from regulatory bargain, including reliability, environmental concerns, efficiency, and equity). In one of electricity's strange-bedfellows displays, the Heritage Foundation makes the same point in one of its reports. See THIERER, *supra* note 3, at 26 (noting that "even if ratepayers had signed [a regulatory compact], a rational contract would have included the right to opt out once cheaper service became available").

441. NRRI'S COMMENTS RELATED TO FERC'S SUPPLEMENTAL NOTICE OF PROPOSED RULEMAKING ON STRANDED COSTS 11 (Aug. 8, 1994) [hereinafter NRRI COMMENTS] (stating that "regulatory compact evolves and is rebalanced as times and circumstances change"); cf. JONES, *supra* note 378, at 18 (index by which rates would change is another important feature of social contract).

One of the problems with regulatory-bargain claims is the lack of a contract specific enough to supply appropriate terms for major technological and cost changes. There is an "inconsistency between the claim that a strong regulatory bargain existed and the absence of any specific criteria for judging investment decisions." KALT ET AL., *supra* note 356, at 53. Had this relationship truly been "bargained for," there would be specific terms to cover major technological changes.

investments onto captive consumers. As *Hope* shows, regulators might change the rules to better serve competition. Another expectation was, as *Otter Tail* reminds us, that customers might exit the system without penalty in a quest for competitive power. Another was that companies were not to ignore extreme costs and risks when they invested. Yet another was that investments that failed the "used and useful" test would not be recovered. If there is an implied regulatory bargain, contract, compact, or deal, it would reflect such terms. And enforcing this contract accurately would not give electric companies full stranded-cost recovery.

*B. Financial Integrity and Capital-Market Threats Do Not Justify
100% Recovery*

A second major concern that permeates FERC's and California's stranded-cost rules is the financial integrity of electric companies. These agencies have claimed that recovery was required for utilities' "financial integrity," one of the interests to be protected under *Hope*. Yet their orders do not show how many companies would fail without Order No. 888's or the CPUC's special protection (though some companies certainly would) and, quite peculiarly, they even fail to find the total expected losses.

However one counts likely stranded costs, and in spite of some contrary language in Order Nos. 888 and 888-A,⁴⁴² those who try to quantify the problem tend to conclude that concentrated in only some companies.⁴⁴³ As few as 20 companies, and just 10 states, may account for half of all stranded costs.⁴⁴⁴ Order No. 888 subsidizes these companies at the expense of their smarter competitors.⁴⁴⁵ Or-

442. FERC reiterated a concern with "financial stability" as one of its guiding principles in Order No. 888-A. It claimed that open access "radically increased" the risk of not recovering costs. *See id.* at 12,373. Throughout both orders, the financial integrity discussion proceeds as if all utilities would be jeopardized if the stranded cost mechanism is not imposed.

443. In its February 7, 1997, study, as noted above, RDI concluded that half of expected stranded costs, \$100 billion, rest with a "small group of only 20 utilities." RDI REPORT, *supra* note 24, at 2. It is not surprising that this distribution of losses among companies produces a similar distribution among states. Ten states have 86% of expected stranded costs, even though they produce only 43% of the country's electricity. *See id.* at 3.

It is telling that the EEI report, which is written as if the organization has been seized by the companies with the largest stranded costs, religiously stays away from discussing how these costs are distributed among its members. If it did address this issue, it would become clearer that EEI's strong push for full recovery is really special pleading for its largest and most powerful members.

444. *See* RDI REPORT, *supra* note 24, at 2-3.

445. *See* COMMENTS ON STRANDED COST ASPECTS OF THE SUPPLEMENTAL NOPR BY ELECTRICITY CONSUMERS RESOURCE COUNCIL 14 (1995) [hereinafter ELCON COMMENTS] (predicting that "utilities that have braced for competition will be placed at a disadvantage relative to their poorly-managed competitors"); CILCO COMMENTS, *supra* note 50, at 13 (arguing that stranded-cost protection "upsets the natural selection of winners and losers"). Cilco also argues that

der No. 888 does not provide any facts showing enough industry-wide jeopardy to justify its decision to respond with generic relief.

Moreover, stranded-cost estimates generally take a static view of utility costs. Many of the presumptions of dire financial results take no account of increased efficiencies, new forms of risk sharing, and other measures that might mitigate the burden of inefficient power.⁴⁴⁶ Rather than consider factors like these, FERC repeatedly opined that utilities "could" fail without full recovery.⁴⁴⁷ It spoke of the "prospect of not recovering such costs [which] *could* erode utilities' ability to attract capital and be very detrimental to a diverse array of utility shareholders";⁴⁴⁸ and of an inability to recover those costs that "*could* impair the financial ability of a utility to continue to provide reliable service."⁴⁴⁹

FERC did find that "[t]he financial community commenters confirm our views in this regard."⁴⁵⁰ They did because it is in their self-interest to make this problem sound as severe as possible. The "financial community" would lose billions of dollars without stranded cost recovery. Naturally its representatives will say pass-through is necessary to preserve financial health (*their* financial health). And even if some utilities go bankrupt, that is just what one would expect for companies that made inefficient and at times discriminatory decisions.⁴⁵¹ The Commission's duty to ensure just and reasonable rates

stranded costs will impede competition, enabling inefficient utilities to discourage departure to new firms by threatening departing customers with high exit fees. *See id.* at 15-17; *cf.* IPALCO ENTERS., *supra* note 280, at 1 (claiming that up-front cost recovery "virtually guarantee[s] that today's inefficient high cost utilities will control tomorrow's generation supply").

446. There is a circularity in stranded costs in FERC's and California's overall assurance of cost recovery. Such measures remove whatever incentive the utilities have to reduce their losses. *See* ROSE, *supra* note 3, at 88-89 (discussing how full recovery "blunts utility incentives to lower costs and mitigate transition costs"). The failure to mitigate increases the need to recover, which in turn confirms the companies' original claim that they face a very large, irreducible cost problem. *See* IPALCO ENTERS., *supra* note 280, at 18 (arguing that by utilities' receiving big subsidies, they may continue to operate inefficiently). Full recovery is a "self-fulfilling prophecy" because it provides the funds to keep uneconomic plants open, *see id.*, thus helping make sure that losses will match projections.

447. *See, e.g.*, Order No. 888, 61 Fed. Reg. at 21,630.

448. *Id.*

449. *Id.* at 21,642 (citing NOPR, F.E.R.C. Stat. & Regs. § 32,507, at 32,870) (emphasis added).

450. Order No. 888, 61 Fed. Reg. at 21,642; *see also id.* at 21,628 (noting financial community's support for full stranded cost recovery).

451. The Texas PUC made the interesting suggestion that the Commission "address financial problems only as needed." COMMENTS OF THE PUB. UTIL. COMM'N OF TEX. 4 (1993) [hereinafter TEXAS PUC COMMENTS]. In that way, "FERC could ensure that only those utilities with legitimate financial integrity concerns could apply for stranded cost recovery." *Id.* As FERC would not give its view of the total costs it expects stranded by Order No. 888, much less those of any given utility, all a reviewing court can do is guess at just how much of a problem the Commission really believes no-recovery would give to some utilities.

Economists tend not to lose much sleep over bankruptcy, at least not as long as they think

would have been better served by rules that help these companies operate through bankruptcy, keep their wires and plants intact, and make sure that the most efficient successors bid for the assets. This would have been much better competitive relief than Order No. 888's bailout provisions. Or, if FERC decided that bankruptcy really has to be avoided, it could customize relief for the companies that Order No. 888 truly threatens with collapse.

California was equally solicitous about its utilities' financial worries. Coupled with and related to the CPUC's picture of a "regulatory compact" was a strong emphasis on protecting the pocketbooks of the state's electric companies. The CPUC claimed that it was allowing full recovery of uneconomic power contracts and regulatory commitments "[t]o assure the continued financial integrity of the utilities," as well as to "give them an opportunity to be vital market participants in the restructured market following the transition."⁴⁵² The "financial integrity of the utilities [was] an important goal of this proceeding, and a goal we will pursue in making the transition to a more competitive marketplace."⁴⁵³ In speculation no more grounded than FERC's, but just as surely music to utility ears, the Commission opined that "[i]nvestors' uncertainty about the recovery of transition costs *may* harm the utility's ability to raise capital and *may* result in a higher cost of debt."⁴⁵⁴ If utilities had to write off all of their uneconomic assets, "they *could* face a financial disruption that might lead to lower system reliability and inefficient operation."⁴⁵⁵

Nothing in FERC's or the CPUC's rules shows that the utilities' services *would* be jeopardized by denying pass-through. The orders do not show that this is a generic problem, or that full cost recovery is needed to avoid disaster. In fact, there are roughly 250 investor-owned utilities and approximately 3000 municipal and cooperatively-owned power companies.⁴⁵⁶ It is true that most of the country's elec-

that the bankruptcy court is efficient enough not to waste too many assets in processing. See ROSE, *supra* note 3, at 27 ("[T]he lights do not automatically go off [in bankruptcy]. The utility may . . . later emerge in better financial health, merge . . . , or reorganize From an economic efficiency standpoint, society is *better off* after the financial readjustment since it results in a better allocation of resources overall.").

452. See CPUC DEREGULATION ORDER, *supra* note 27, at 111.

453. *Id.* at 119 ("Maintaining the financial integrity of the utilities is an important goal of this proceeding.").

454. *Id.* at 119 (emphasis added); see also *id.* at 59 (warning that, without cost recovery, the "issue of generation assets alleged to have been stranded would now be plagued with doubt and uncertainty at the precise time" of the move to competition).

455. *Id.* at 119-20 (emphasis added); *id.* at 196 (Finding of Fact No. 50: "If we do not provide for adequate transition cost recovery, the move to competition may threaten the utilities' financial stability.").

456. See EIA UPDATE, *supra* note 10, at 10 (charting 244 investor-owned utilities, 10 federally owned, 2014 other publicly owned, and 931 cooperatives).

tricity comes from a handful of companies, and some of them have big stranded cost problems, so simple averages are not very accurate. Investor-owned utilities produce almost three-fourths of our power; thirty-four of them are responsible for over half of all electricity produced.⁴⁵⁷ Some of the largest of these companies would be in real trouble without cost recovery. In sheer numbers, however, they are in the minority. There certainly are more companies with no exposure than companies that would fail if they had to absorb their losses. Moreover, none of the major cost proposals suggests allowing *no* recovery; the number of companies whose health would be jeopardized by an appropriate mechanism is less than the number of companies with large stranded costs.

Some utilities and commentators expressed anger that any agency might upset their belief that utility stocks are perfectly safe, as if utilities could exist in an economic vacuum. This is why there are so many claims that regulation was a guarantee against the rigors of competition.⁴⁵⁸ These claims should be treated like the claims of other people who expect to get something for nothing. No one ever guaranteed purchasers of these private stocks that they could raid the public treasury if their companies got into trouble. Similarly, no one suggested or promised that they had found a semi-private marketplace that would be forever exempt from competition, regardless of the quality of their companies' investments.

A pipeline reliance interest did not play a part in gas restructuring even though pipelines argued that they were not being compensated properly for their investments. Beginning in the late Eighties, pipelines began to claim that their rate of return was preventing them from matching the earnings of similarly regulated industries. Pipelines claimed that the caps on their rates prevented them from balancing losses against profits in good times.⁴⁵⁹

457. See CPI REPORT, *supra* note 5, at 27.

458. See *supra* notes 315-20 and accompanying text.

459. See *infra* note 468.

Those who claim that the pipelines have been underpaid ignore the uncompetitive practices that produced the shift to open access. Had competitive companies entered contracts like take-or-pay contracts, they would not have come near market rates of return. The pipeline response to this point is that, like electric companies, they would not have entered these contracts had they not been pushed to do so by regulators. Essentially, their argument is as follows: "We don't want *any* responsibility for our gas purchasing, at least, not unless you protect our markets from all competition." Here too the most fundamental question about deregulation is why firms made such wildly inefficient decisions.

Two natural gas pipelines did go bankrupt during the period of gas deregulation; one was acquired, the other has subsequently emerged from bankruptcy. The fact that their shareholders were hurt was irrelevant to the true issue, which was whether their companies made such inefficient and at times discriminatory decisions that they should be held responsible. Similarly, if shareholder-owned utilities bought overly expensive generating plants and tried to

In an important contrast to electricity that Order No. 888 fails to address, in Order No. 528-A FERC rejected pipeline arguments that they deserved to recover more costs. It found that equitable sharing "permits [pipelines] to recover a sufficiently large percentage of the costs so that their financial viability and ability to provide service to their customers is not undermined."⁴⁶⁰ FERC cannot distinguish natural gas by arguing that electric companies' risk is so much more extraordinary that they need to recover all of their costs, because in the past, it has argued just the opposite. In Order Nos. 888, 888-A, and 636-C, the Commission has claimed that it was the fact that take-or-pay exposure was so extraordinarily large that permitted the Commission to shift some pipeline costs to other parties.⁴⁶¹

To the extent that concerns about financial integrity were based on a desire to protect the physical network that delivers power, those concerns could have been met without passing through all stranded costs. FERC could have addressed that problem by requiring corporate unbundling. The significance of its decision to order only functional unbundling instead is that it kept the health of utility transmission and distribution systems tied to their inefficient generating assets. Had FERC mandated corporate unbundling, it could have protected transmission and distribution affiliates and any economies in the scale of their operations even if generating affiliates lost their ability to compete.⁴⁶² Given the Commission's finding that the mar-

avoid losses by discriminatory control of their lines, arguably the shareholders should pay, just as pipeline shareholders paid.

460. See Order No. 528-A, 54 F.E.R.C. at 61,304.

461. See Order No. 888, 61 Fed. Reg. at 21,637 (making pipelines shoulder some costs was "an extraordinary measure given the nature of the take-or-pay problem and the prevailing environment at that time"); Order No. 888-A, 62 Fed. Reg. at 12,392 ("fundamental premise" of Order No. 500 was "extraordinary nature" of take-or-pay problem; pipelines faced "vast outstanding take-or-pay exposure" and putting these "billions of dollars" on "any one segment of the industry would have imposed a crushing new burden on that segment"); 12,393 (referencing "extraordinary expense"); Order No. 636-C, 78 F.E.R.C. at 61,784 (citing "extraordinary nature" of the "massive costs" that pipelines risked incurring).

The Commission's failure to test its financial integrity concerns company by company is inconsistent with another part of Order No. 888. It has decided to tie protection to "reasonable expectations" company by company, customer by customer. Surely it would have been at least as easy (and certainly more fair) to protect financial integrity on the same case by case basis. This conclusion is particularly apparent when the major stranded costs seem likely to be concentrated in a handful of companies and states.

It probably is fair to point out that concern over financial integrity and use of a formula that protects "reasonable expectations" is inconsistent. Very solvent utilities that meet the test will be protected; shaky, nearly bankrupt companies that built plants without a proper expectation may be denied recovery and therefore jeopardized. The reason this may not be a fair criticism is that the Commission has not decided what to do about costs that do not meet the Order No. 888 test; there will be no surprise if it ultimately lets financially shaky companies pass those costs along to remaining customers.

462. Such unbundling would have required an administrative allocation of losses among equity owners and bondholders. The allocation would create problems in distributing the as-

ket for *new* generation is competitive,⁴⁶³ the Commission presumably believes that failures among companies with generating assets would be balanced by the entry of new companies.⁴⁶⁴

Electric companies do face one disadvantage compared to pipelines: Pipelines were able to shift most of their exposure back onto producers because of the loose structure of the natural gas industry. Electric companies, which are much more likely to own their own "producing" supply, will not have a similar luxury. Yet balanced against this difference is the fact that Order No. 888 only concerns a small part of the stranded-cost problem, the wholesale costs, and the fact that these costs seem concentrated in a small number of companies. Some utilities might need financial relief, just as at least two pipelines (those that went bankrupt) could have used a hand; but FERC has not developed a record to show that Order No. 888 caused an industry-wide problem.

One kind of financial integrity argument tries to extort money by threatening to withhold future funding. The argument seeks to ex-

sets of the unbundled companies among creditors and other interest owners. Indeed, the CPUC's Chairman recently stated that the reason California did not mandate generation divestiture (although it seems to be occurring anyway) was the belief that the utilities could not secure bondholder approvals in time. See Conlon, *supra* note 207. Conlon called the ISO "just an opening" to a more long-term divestiture and asserted that FERC agrees that ISOs are "transitional" to regional, independently owned grids. The divestitures mandated by the Public Utility Holding Act took decades, even though the divisions were among holding companies rather than operating companies, and many of the victims already were in bankruptcy, so opposition was less likely. See JOSKOW & SCHMALENSEE, *supra* note 175, at 205.

Investors buying stocks and bonds from regulated companies take the risk that there will be agency changes to the nature of their security. Upon divestiture, stockholders presumably would receive stock in both the unhealthy generating assets and the healthy transmission and distribution affiliates; they should not be any worse off than before (at least, not from the corporate unbundling alone) as long as the allocation is proportionate. Lenders and others holding interests secured by specific assets would have their interests go through the restructuring as well. Commissions might have to make a division of assets if a lender had unlimited security on generation, transmission, and distribution assets, in effect subsidizing poor generation investments with still-protected assets, but in that instance the Commission would have to ask whether the lending arrangement had been entered prudently.

California has proceeded with partial divestiture by requiring its two major utilities to sell at least half of their fossil-fuel plants. In some other states, divestiture seems to be a quid pro quo for stranded-cost recovery. Interestingly, one of the most economics-based reports on electricity deregulation, the Heritage Foundation's report on "Energizing America," touted divestiture as "probably the easiest deregulatory path to follow," as "simpler than . . . open access," and as having "great appeal." THIERER, *supra* note 3, at 7, 23-24. The authors ultimately recommended against it, however, for seemingly prudential reasons. "A de-monopolization period is needed to right the regulatory wrongs of the past." *Id.* at 24. Perhaps more importantly, the authors had to know that advocating full and immediate divestiture would reduce the report's credibility with most industry audiences.

463. See Order No. 888, 61 Fed. Reg. at 21,542, 21,549, 21,553-54.

464. Someone would have to pay the transaction costs of this realignment of market shares. But the whole idea behind deregulation is that the efficiency gains from competition significantly outweigh the costs of transition, so it would hardly be appropriate for the Commission to protect utilities just because of the transactions cost of opening their markets.

exploit the fact that electricity plant is a voracious consumer of capital.⁴⁶⁵ The argument buries issues of blame and responsibility behind seemingly anonymous market mechanisms. As the threat goes, regardless of who is at fault for today's predicament, the only way that "capital markets" will fund needed investments in the future—at least, at a viable interest rate—is if today's costs are reimbursed. Cost recovery becomes necessary to avoid future problems.⁴⁶⁶ Stripped of qualifications, the argument would force consumers to pay for the most ill-conceived past investments so that the market will not punish future consumers.

The capital drought argument is a poor predictor of future market behavior. Markets are much smarter than this model. Stranded costs

465. The EEI reports annual capital expenditures of investor-owned utilities at \$25 billion. See EEI COMMENTS, *supra* note 23, at 10. It calls the industry "our country's most capital-intensive industry." *Id.* at 8 (reporting that electricity "requires \$2.32 of capital investment" per dollar of annual revenue, while in comparison, natural gas, another capital-heavy industry, only requires \$1.08); see also JOSKOW & SCHMALENSEE, *supra* note 175, at 3 (noting that the industry "requires enormous amounts of capital"). Not only is approximately 10% of all capital investment related to electricity, see CPI REPORT, *supra* note 5, at 1, but much of the nation's power plant is old stock that will have to be replaced, cf. *id.* at 24 (stating that one-half of "operational" plants larger than 50 MW are more than 30 years old).

466. See *supra* note 356. Baumol and Sidak take this side too, warning of the "deterrent consequences for investment" if investors do not recover the money they feel was promised under an "implicit regulatory compact." See BAUMOL & SIDAK, *supra* note 1, at 105. The likely shortage of capital is a "compelling efficiency reason for regulators to permit recoupment of stranded costs." *Id.* It is for this reason that they support the "apparently implausible proposition" (one this Article argues is not just implausible, but wrong) that consumers are best served by full stranded-cost recovery. Though consumers might seem to always be better off with the lowest prices, this will be a "Pyrrhic" victory if utilities cannot recover their costs and capital dries up. See *id.* This would be "the form of imprudence to be feared most," in which consumers received "some highly transitory, short-term benefits for which [they] will later have to pay very dearly." *Id.* at 113.

Baumol and Sidak do not address the narrow conditions under which the loss to consumers in higher capital costs would exceed the gain from not funding all stranded costs. Baumol later joined the EEI's ECONOMISTS' REPORT, which concedes that this would be an extreme case. See *infra* note 467. Similarly, they fail to explain why this risk would affect (1) future generating capacity, in a market that will be deregulated and thus unlikely to experience another regulatory reform, or (2) transmission and distribution markets that do not appear under a threat of being deregulated or undercut by lower cost suppliers.

One reason Baumol and Sidak may not have developed a sufficient economic argument for full cost recovery is that they, like the EEI, may believe that economics is secondary to equity concerns, which they read as dictating full recovery. See *id.* at 101 (tracing "disparity in obligations" between utility and new entrants to commitments made with "regulatory consent and encouragement"); *id.* at 103 (arguing that considerable portion of costs "were incurred involuntarily . . . as a result of regulatory imposition," and calling costs a problem "caused by regulator's departure from the mutual expectations that underlay traditional regulation"); *id.* at 107-08 (subscribing to equity arguments for full recovery); *id.* at 100-11 (calling it a "taking" if utilities do not at least recover their investment and the cost of capital). By whitewashing *all* utilities' investments as if undertaken by regulators rather than by private companies, Baumol and Sidak depart the complex world in which blame and burden would be shared and enter a simplistic one in which there is a sole effective cause of stranded costs (regulation) and a sole remedy (make consumers pay for every last dollar). One can see why EEI would have provided financial support for this report, see *id.*, as well as the report that Baumol, Kahn, and Joskow submitted as part of EEI's Order No. 888 comments.

are concentrated in only certain kinds of generating plants and power supply contracts, and in only certain firms. Investors can devise strategies to handle such risks. And investors will know that when FERC is moving from regulation to competition, its decisions on past generation costs are not likely to have much impact, if any, on the risks assumed by companies building new generating capacity. Those plants will be subject to ordinary market tests.⁴⁶⁷ The level of merger activity shows that there is a lot of capital eager to take risks in return for the possible gains, but also losses, of the newly deregulated market.

Disallowance of a large share of (or all) stranded costs would not convert all electric company stocks into bad risks. Most utilities have relatively few stranded costs, and it is easy to pinpoint the troubled investments of the companies that do have large exposure. Capital would shift to companies with wise investment strategies, as it does in any market. If differences in risk-taking are pronounced, companies perceived to have done better should, over time, secure more capital and tend to expand. Those making poor decisions will stagnate and, in some cases, be acquired by companies that rate better in capital markets. It is true that the decision to make companies pay their stranded costs would impose great capital costs on companies that have courted nuclear power, long-term fixed-price fuel contracts, and

467. For an example of how one well-known commentator's thoughts on the recovery mechanisms differ under the assumption of continuing regulation, see *supra* note 60 and accompanying text. Electricity deregulation presumably would be something of a middle case under a partly-deregulated approach, because many costs are deregulated, but whatever happens to these costs might be seen as precedent in capital markets for the still-regulated transmission and distribution sectors.

It is a very far-fetched idea that capital really might disappear, or that interest rates would rise so high that the added cost would be a greater penalty than that imposed by full cost pass-through. Indeed, though there may be some increase in interest rates from the shift to competition, if deregulation did not bring lower costs, "then by the same logic all industries should be regulated to get the lower cost of capital." ROSE, *supra* note 3, at 28. The EEI's economists candidly admit that the increase in capital costs is not likely to offset the gains from not having to pay stranded costs: "Nor do we assert that the consequent increase in the future cost of capital would fully offset any corresponding short-term gains in allocative efficienc[ies] . . . [but] legislators and regulators can not expect with impunity to change the rules of the game . . ." EEI ECONOMISTS' REPORT, *supra* note 36, at 41.

Finally, one might argue that effective competition in the new electricity market will require great concentrations of capital. The many "BTU convergence" mergers show that many industry companies share this belief. This is a rich-utilities version of the failing company argument: If competition requires a number of very well-funded entrants, large payoffs to utilities with billions of dollars in stranded costs will ensure deep-pocket competitors in generation. But this argument necessarily assumes that capital markets are not efficient enough to provide large capital pools even where electricity offers big profits, something the current flow of funds into the industry suggests is not right. It is worth noting that economists who believe in markets tend to believe that the government should not be in the business of supporting fledgling or "infant" companies, a principle that presumably should apply to faltering electric companies too.

more generally, on utilities that failed to diversify their sources of supply and continued to build very large generating plant. This would be a far cry, however, from the disappearance of capital from the industry as a whole.

One last financial-integrity argument is really a form of the regulatory bargain argument. Like the pipelines discussed above, electric companies like to claim that the risk of competition was not incorporated in their return.⁴⁶⁸ They argue that allowed rates of return do not protect a utility's periods of under-recovery (i.e., if recovery is cyclical, a rate cap set at only the average return does not permit the gains needed to erase periods of loss), and that the risk of changed regulatory fabric did not figure in their rate hearings.⁴⁶⁹

The capped structure of rates has been a feature of regulated life for decades, so investors should have factored that constraint into their willingness to invest. Discussions of whether the risk of deregulation was part of the rate of return make several errors. One error is that investors risked their money under this capped-earnings structure even though they had to know that regulations could change. Another is overestimating the risk to investors. The risk that a rational investor would incorporate is not the actual risk that has materialized (i.e., the deregulation that has occurred), but the discounted present value of the *risk* that deregulation *with cost recovery disallowed* might occur. Similarly, the loss an investor would have associated with deregulation would not be all possible stranded costs, as often is assumed in dire warnings about utilities' financial integrity. It would be only the expected portion of those costs that regulators would not protect.

The risk of deregulation may have been only 20% or 30% (or less) in the Seventies, for instance, and that is the risk that a rational investor would have factored into his or her equation. This risk grew as utilities sank greater proportions of their total capital into very large plants. As Part V.A discussed, anyone paying attention to the recovery history in natural gas and electricity could not have been surprised to find that a large gap between market prices and embedded

468. This theory has gained some prominence with an article and then book by William Tye and various co-authors, in work that grew out of their review of nuclear plant recoveries. See A. LAWRENCE KOLBE ET AL., *REGULATORY RISK* (1993); see also INGAA WHITE PAPER, *PIPELINE RETURN ON EQUITY 19-25* (1995) (arguing that FERC rates of return tend to rely on unrealistic growth forecasts and the wrong comparative investments; and that the cap inadequately mirrors cyclical returns). The EEI supplied the Commission with a 45-page report, plus attachments, detailing Kolbe and Tye's theory. See *REPLY COMMENTS OF EDISON ELEC. INST.* (Jan. 23, 1995).

469. See *id.* at 33-39 (allowed rates of return did not compensate investors for risks).

regulatory costs put utilities at some risk.⁴⁷⁰

Some myopia surrounds complaints over low utility returns and stock prices. Electric companies made some very bad investing decisions, as did natural gas pipelines. To the extent that costs have been stranded because of overinvesting in capital-intensive facilities and contracts, the losses are brought about by utility practices. Just as natural gas prices showed that pipelines made a lot of mistakes in gas purchasing, so too the spread of costs between today's large utilities and new entrants shows that something went badly wrong with utility investing.⁴⁷¹ Small wonder that some electricity stocks have fallen; so did the supposedly secure stock of the companies that overinvested in mainframe computers, large cars, DC-10s, and Apple computers.⁴⁷²

470. Everyone has their own list of what factors should and should not have afforded notice to investors that paid any attention to their investments. In addition to *Hope and Otter Tail* and the many changes in natural gas pricing, opponents of stranded costs like to cite *Public Service Commission of Montana v. Great Northern Utilities Co.*, 289 U.S. 130 (1933), and *Market Street Railway Co. v. California Railroad Comm'n*, 324 U.S. 548 (1945). See ROSE, *supra* note 3, at 59-61. There has been a wide range of other regulatory changes in the last ten to fifteen years that arguably should have warned investors of the risk. See *id.* at 79 ("[T]hese events include . . . the beginning of competitive bidding in some states, discount rates offered to industrial customers (including 'cogen killing'), increasing amounts of new capacity from independent suppliers, warnings of change from investor service organizations, and reduced regulation or deregulation in other regulated industries."). Of course, recovery proponents have their own raft of cases about their right to an opportunity for recovery, usually beginning with *Duquesne* and continuing with prudence cases that employ the "opportunity to recover" slogan.

471. As noted above, most utilities deny this and try to put all the blame on regulators, but if regulators believe that utilities are entirely efficient actors trapped inside an irrational network of government rules, they should leave franchises in place to preserve economies of scale and integration and simply remove the offending rules.

472. See *supra* note 12 (discussing market failures of other major industries). Even if claims about investors' *legitimate* expectations are not well founded, they can be very potent. FERC cited both the American Society of Utility Investors' and United Utility Shareholders Association's comments even though they contained nothing but rhetoric. See ASUI COMMENTS, *supra* note 310 (arguing that changing the rules now is unfair to investors); UUSAA COMMENTS, *supra* note 310 (urging the Commission to consider stockholder interests). The comments served as a reminder that there are millions of small stockholders who could be organized to demand stranded-cost recovery. The emphasis on retired and small-shares owners who had held stock for a long time and were looking for security contained the barely veiled threat that these organizations would trot out the worst cases, the sympathetic grandmother whose life savings plummeted in value and the couple that saved for years for their son's college education, in hopes that pass-through would be decided by the suffering of victims rather than the true expectations of the parties. Left out is the fact that bond and stock ownership is heavily concentrated in the wealthiest of Americans.

Given annual investments of \$25 billion in this capital-intensive industry, see EEI COMMENTS, *supra* note 23, at 10, the steady undercurrent to all capital-markets-based arguments is the threat that we, owners of capital, will pull up our stakes if you, the Commission and ratepayers, don't protect us from the predicament that our companies find themselves in. The argument is a not-very-subtle form of blackmail. For a related, more general argument that businesses enjoy a privileged position in the political process, see CHARLES LINDBLOM & EDWARD WOODHOUSE, *THE POLICYMAKING PROCESS* ch. 8 (1993).

It has, of course, long been part of an agency's concerns to protect the integrity of the utility. But that principle unfolded in the context of costs assumed to be legitimate. The cases have not held that even imprudent utilities, companies that wildly overinvest, or companies that discriminate have to be preserved.

This leads to the oddity of the complaint that rate hearings did not include discussions of the risk of deregulation. What firm was going to raise the point that it might be acting so poorly that its markets should be restructured? What utility was going to tell its regulators, "Oh, we think there is a good chance that our costs are so inefficient that you will disallow them in the future, so we need a higher rate today to attract capital," or, "You know, we are discriminating against cogenerators and the small combined cycle gas generators who are entering our franchise territory, so you should increase our return because there are good odds you will deregulate us next year"?⁴⁷³

Although some arguments for cost protection, like regulatory bargain arguments, rest upon claims to a prior agreement, others, like the capital market threat, are by any other name claims for an entitlement to government protection. The most passionate of these claims come with reminders that some utility investors are widows or retired people who subsist on low income,⁴⁷⁴ but rarely is there a reminder that as a group, people owning stock are the wealthiest members of our society.⁴⁷⁵ To the extent that the effect of stranded-

Moreover, the Commission had options to meet concerns about financial integrity. See *supra* notes 462-64 and accompanying text. It could have required corporate unbundling, thus preserving the transmission and distribution assets and localizing losses in the generating sector that has fallen behind the market. It could have identified utilities that actually faced financial disaster, and allowed relief only in those cases, as the Texas Public Utilities Commission recommended. See TEXAS PUC COMMENTS, *supra* note 451, at 4 (arguing that FERC should establish a test to identify utilities with legitimate financial issues).

It is worth noting that the arguments about financial integrity are one of the least supported parts of Order No. 888. The Commission never made a finding on the actual scope of stranded costs, nor does the Order contain findings about the finances of any utility or the industry as a whole, so there was no basis for FERC to conclude that this is a major problem. The Commission's discussion of this problem includes cites to both utility investor groups above, whose comments are short, undocumented special interest appeals. If the Order turned on this factor, it would have to be remanded for legitimate findings.

The Commission's pages about discrimination in the industry are also short of fact. See Order No. 888, 61 Fed. Reg. at 21,566-69, 21,704-05 (discussing comments filed regarding undue discrimination). The Commission justifies its conclusory treatment there in part by noting that customers would have an understandable fear of retaliation. See *id.* at 21,568 (transmission customers may be afraid to point out discriminatory practices because they are afraid of being shut out of the market). This acknowledgment should not be enough to let the Commission get by with so few examples. Electric companies are not about to complain seriously, though, because FERC certainly has the authority to deregulate in this age of deregulation, and it has greatly favored utilities thus far with its rulings on stranded costs.

473. One utility response to this point could be that this complaint arises because there has been an *arbitrary* deregulation; but were that the case, and it is not, *Duquesne* has the answer. Arbitrary changes in regulatory fabric to make sure utilities bear every unforeseeable loss would violate due process. See *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 308 (1989).

474. See ASUI COMMENTS, *supra* note 310, at 2 (stability of the electric utility industry appealed to individual investors); UUSAA COMMENTS, *supra* note 310, at 2 (electricity industry is attractive to retired people who cannot afford to take a risk with their money).

475. As Lester Thurow has pointed out in a discussion of energy company stock, the top 10% of the income strata own 90% of corporate stock. See THUROW, *supra* note 69, at 31. Policies that shift wealth to this group result "in a sharp shift toward inequality in the distribution of

cost reform is to redistribute collective resources, via the government, to one group, it is a claim of the wealthy for the rest of society to make them still more wealthy. None of this is ever stated clearly in the debate.

C. "Cost Causation" Ignores Who Really "Caused" Stranded Costs

Order No. 888 turned to another "principle" that never appeared in the natural gas orders: "cost causation." A number of commenters urged that utility shareholders pay at least some penalty "because at least some of the responsibility for stranded costs lies with poor business decisions by utility management."⁴⁷⁶ The Commission responded that "[w]e believe it is appropriate" that departing customers bear all costs stranded by their departure.⁴⁷⁷ It defended this decision as consistent with "the well-established principle of cost causation, namely, that the party who has caused a cost to be incurred should pay it."⁴⁷⁸ In contrast, "[a] broad-based approach . . . would violate the cost causation principle by shifting costs to customers (such as transmission users of the utility's system) that had no responsibility for stranding the costs in the first place."⁴⁷⁹ FERC claimed that Order No. 500's equitable sharing was "an *exception* to the time-honored principle that rates should reflect cost causation."⁴⁸⁰

income." *Id.* The fact that a policy has regressive distributive effects does not mean that it is wrong. To the extent that regulators really induced investment by promising recovery, or commanded it through onerous rules and regulations, society may have to pay the bill even if the result is to increase the income of rich Americans. The problem with FERC's and California's stranded cost treatments is that they reward this class of owners with more wealth *without* determining the extent to which they deserve such compensation.

476. Order No. 888, 61 Fed. Reg. at 21,634.

477. *Id.* ("[T]he departing generation customer . . . [should] bear its fair share of the legitimate and prudent obligations that the utility undertook on that customer's behalf.")

478. *Id.* at 21,635.

479. *Id.* For another reference to cost causation, see *id.* at 21,633 (defending pass-through as "consistent with the traditional regulatory concept of cost causation").

480. *Id.* at 21,636-37. This position in turn seems to parrot dicta in one of the District of Columbia's decisions on natural-gas recovery costs. See *KN Energy, Inc. v. FERC*, 968 F.2d 1295, 1300-03 (D.C. Cir. 1992). In *KN Energy*, a customer appealed KN Energy's Order No. 500 plan for take-or-pay costs. In a history that has little to do with what the Commission actually said in its orders, the court claimed that "FERC has instead taken the position that circumstances surrounding the take-or-pay crisis and the transformation of the pipeline industry necessitate and justify the crafting of new ratemaking principles." *Id.* at 1301. It said that FERC's allocation of gas costs to customers who "may not have directly caused them" was "acceptable" only because of the Commission's judgment that "the extraordinary nature of this problem requires the aid of the entire industry to solve it" and that there were "no other alternatives." *Id.*

The court divined FERC's second rationale for this treatment to be that all parties to the industry would benefit from deregulation. See *id.* In Order No. 888, the Commission made no effort to decide whether utilities should pay some of their stranded costs because they will benefit from deregulation, which many surely will.

In the federal court's attempt at rule-massaging (if not rulemaking), it held that these rationales could be "reconciled with the NGA," but only "given the unusual circumstances sur-

The idea that departing customers “cause” stranded costs (apparently by reacting to the competitive incentives the Commission has seen necessary to install) does not fit the rationale for ordering open access. Order No. 888 requires open access because *utilities*, not departing customers, have been building inefficient plants and buying uneconomic power and then, armed with monopoly transmission and distribution facilities, trying to block cheaper power. Open access exposes these facilities and contracts to competition. Deregulation is occurring because of failures in utility supply choices, not because customers are withdrawing their demand in response to overpriced power. If utilities find their power stranded, it will be because their electricity is not competitive and customers have responded accurately to the market. It is not because departing customers have done something wrong. If one looks for the “cause” of stranding, one need look no farther than the inadequacy of utilities’ investing, the reason for deregulation in the first place.

This is why cost causation, and with it Order No. 888’s focus on “reasonable expectations,” picks the wrong standard for gauging electric companies’ entitlement to government financial protection. The relevant issue in a deregulated world is not (as the Order assumes) whether a utility has a reasonable expectation of serving a departing customer, but whether it ever had a reasonable expectation that it would keep customers if its service was very uncompetitive. *It is the excessive cost of service, not the fact of providing service, that spawned deregulation.* Deregulation’s primary aim is to fix a supply problem, not a demand problem.⁴⁸¹ Agencies have welcomed new firms because too many of the major utilities have been inefficient in the way they provide their obligatory service. The stranded cost bat-

rounding the take-or-pay problem, and the limited nature—both in time and scope—of the Commission’s departure from the cost-causation principle.” *Id.*

It would be a bet worth taking that no ordinary reader of the English language could read the gas deregulation orders and the related appellate opinions and emerge believing that the Commission had done something almost illegitimate, justified only by the “unusual” circumstances and the “limited” nature of the remedy.

One can speculate whether *KN Energy* was the last straw for a Commission battered by repeated reversals of its gas deregulation orders. When that opinion suggested a surer basis for stranded costs by resting them on “cost causation” (indeed, offering the Commission a chance to use a methodology it could blame on the court), FERC took it. But this reading of Order No. 500 through KN-colored glasses is not the most natural reading. No one could tell from Order No. 500 that equitable sharing was a departure from mainline regulatory principles.

481. If agencies believed that what has gone wrong is that the consumer is buying too much or too little power, power from the wrong sources, or displaying some other problem with demand, they presumably would have done something other than order open access. They could change rate structures; impose rate penalties or varying rate structures to change the effective marginal cost of power purchases; or establish education and information programs to change buying practices.

ties too often have diverted attention from the fact that stranded costs are a supply problem, not something customers did wrong.⁴⁸²

Though regulatory filings are not the best place to look for a balanced view of an industry dispute, they do have a role to play in studying a new rule. The adversarial process tends to produce the strongest arguments for each side's position. From an agency's perspective, ratemaking comments can be an easy way to gather the strongest authorities for the decision it ultimately undertakes and to identify the likeliest objections. From a policy perspective, the failure of an argument to appear in anyone's rulemaking comments is one sign that the position may not be very credible.⁴⁸³

This sheds some light on FERC's justification that pass-through is "consistent with the traditional regulatory concept of cost causation."⁴⁸⁴ FERC welcomed cost causation, its "well-established principle," like an old friend.⁴⁸⁵ Its affection only deepened by the time it reached Order No. 888-A. There the Commission claimed that its natural gas orders were a temporary departure, caused by that industry's "unusual circumstances," from this deep principle. The assertion that cost causation is a fundamental guide to ratemaking is striking because virtually none of the Order No. 888 commenters suspected that it would be a guiding principle. Cost causation played virtually no role in the first-round arguments of the major utilities, just as it did not affect the natural gas outcome.

Cost causation issues have been disputed frequently in battles over which customers should bear certain costs, but the deregulation issue is different. Here the question is whether certain costs are legitimate, and should be borne by *any* customer, not how they should be allocated across customers.

That cost causation is a weak reason for deciding whether stranded costs qualify to enter the rate equation can be deduced from the

482. See ROSE, *supra* note 3, at vi ("The debate implies that the commission or legislature imposes costs on the utility . . . [and] has shifted the focus away from the origin or controller of these costs, the utility. In an economic sense, retail access and competition do not impose costs—rather they *expose* costs that are uneconomic relative to alternative suppliers."); see also *id.* at 93; ELCON COMMENTS, *supra* note 445, at 13.

Utility customers did not "cause" 19¢/kWh nuclear plants. Customers did not "cause" utilities to sign contracts for QF power at above avoided cost rates. Customers did not "cause" utilities to spend exorbitant sums on demand-side management programs designed first to compensate the utility for reduced demand and only second to conserve power. Customers cannot "cause" costs to exceed those that would otherwise prevail in a competitive market.

Id.

483. This is not always true. Sometimes the absence of an argument may just mean that the best solution to a problem is so innovative that very few people think of it.

484. Order No. 888, 61 Fed. Reg. at 21,633.

485. *Id.* at 21,635.

careless way in which FERC used the concept. Although the Commission introduced it as a general justification for full pass-through, Order No. 888 almost immediately shifts to using cost causation as a defense for an exit fee as the mechanism of pass-through.⁴⁸⁶ The issue changed from *whether* to allow these costs into the ratebase, to the very separate question of *how* to allocate them on the assumption that they will be allocated entirely to customers.⁴⁸⁷ In other words, the Commission assumed rather than proved that some class of customers should have to bear stranded costs. This is circular logic because the issue being decided is whether any customers should pay for these losses.

The real fight over stranded costs is not about for whom an electric company thought it was incurring costs. It is whether a company should have incurred particular costs—built the plants it built, signed the supply contracts it signed—no matter whose demand is being served. It is whether the plant and contracts were necessary to supply power. That question should lead regulators back to the reasons that utilities made bad decisions, and to the extent of their errors.

D. Reimbursing Utilities for Uneconomic Plants and Contracts Will Not Enhance Efficiency

The stranded cost debate has proceeded as if the main issue is the intent of the sides to a regulatory bargain. Most utilities are smart enough not to pretend that rewarding them for investments whose costs they cannot recover will enhance efficiency. That is why their claims for relief tend to focus on what they say they were promised by

486. See Order No. 888, 61 Fed. Reg. at 21,635 (“A broad-based approach, in contrast, would violate the cost causation principle by shifting costs to customers (such as transmission users of the utility’s system) that had no responsibility for stranding the costs in the first place.”).

The Vermont DPS argued that the costs allocated were “costs to provide system power supply, not to supply specific loads.” See COMMENTS OF VT. DPS, *supra* note 394, at 17. This portion of the Commission’s order is likely to lead to far more litigation than it imagines.

487. The way this slight of hand works is instructive. In its cost-causation discussion, the Commission initially phrases the issue as whether costs should fall on “the departing generation customer,” or instead on “the remaining generation or transmission customers (or shareholders).” See Order No. 888, 61 Fed. Reg. at 21,634 (emphasis added). Though shareholders already may have gained special privileges—as the possibility that they might bear any costs has already been demoted to a parenthetical—just a few paragraphs later shareholders have dropped from the scene entirely. Now the Commission phrases its objection to a “broad-based approach” (like equitable sharing) as that it violates “the cost causation principle by shifting costs to customers (such as transmission users of the utility’s system) that had no responsibility for stranding the costs in the first place.” See *id.* at 21,635. Not only does this ignore cost sharing among generation customers, but the most important allocation of costs—that between customers (however defined) and shareholders—has dropped out of the analysis. The “cost causation” discussion never explains why shareholders fail to bear some of the costs, or why management’s officers and agents are not viewed as having “caused” at least some of the costs.

regulators, not on whether stranded cost recovery is efficient.

But deregulation is, after all, propelled by the high value society has placed upon efficiency. Thus it is worth considering whether efficiency dictates one approach or another. Not surprisingly, one can find arguments that stranded cost recovery is indeed efficient.⁴⁸⁸ The EEI offered FERC the rare opportunity to review the thoughts of three of America's most prestigious economists on this issue: Paul Joskow, William Baumol, and Alfred Kahn.⁴⁸⁹ The three concluded that long-term "productive" efficiency justifies full cost recovery.⁴⁹⁰ They found short-term productive efficiency of little weight,⁴⁹¹ and they admitted that "allocative" efficiency suggests that utilities should pay for their unwanted facilities,⁴⁹² but they argued that these two factors are outweighed by long-term productive efficiency when it is added to considerations of fairness.⁴⁹³

1. *Cost recovery does not serve short-term productive efficiency*

The economists' first conclusion is that there is little gain in short-term productive efficiency (so it should not control the recovery mechanism).⁴⁹⁴ They reach that result circuitously, though, by skipping the necessary predicate for their position, which is to answer the cost-responsibility question: What share of stranded costs is due to utility mistakes, and what share to regulatory impositions? By assuming that all stranded costs are caused by regulators while failing to make any effort to prove this claim, the economists deprived the

488. See, e.g., William Baumol & Gregory Sidak, *Stranded Costs*, 18 HARV. J.L. & PUB. POL'Y 835, 837 (1995) (making efficiency arguments for recovery).

489. See EEI ECONOMISTS' REPORT, *supra* note 36.

490. See *id.* at 3-4.

491. See *id.* at 3.

492. See *id.* at 4.

493. See *id.* at 3 ("Efficiency improvements should be the primary goals of policy reform."). The three economists come out decisively for stranded-cost recovery in their EEI report, see *id.* at 3-4, as do Baumol and co-author J. Gregory Sidak in another industry-sponsored report, Baumol & Sidak, *supra* note 488, at 837. But it is perhaps not surprising to find comments that yield less-certain interpretations in some of the authors' other writings. Thus in another 1994 article, Kahn was only willing to argue that the "larger source" of stranded costs lay in older plant and power contracts. See Kahn, *supra* note 175, at 10 (emphasis added). Kahn continued:

Beyond pointing out that economic efficiency would best be served by ignoring sunk costs and freeing utility companies to reduce their rates to marginal costs . . . , I have no particular enlightenment to offer on the question of the companies' entitlement to recover those presumably prudently incurred costs, a large portion of which was incurred on orders by the regulators.

Id. at 10-11 (emphasis added). In his EEI Report, Kahn laid claim to having a lot more "enlightenment," for instance, advising FERC on equity as well as economic concerns. Cf. ROSE, *supra* note 3, at 90 & n.6 (questioning consistency of Baumol's support for stranded costs with an earlier affidavit).

494. See EEI ECONOMISTS' REPORT, *supra* note 36, at 20 ("Opportunities for improvements in productive efficiency . . . are very limited in the short-run.").

Commission of help where it most needs unbiased expertise.

Productive efficiency involves the resources used to generate power.⁴⁹⁵ In turn, productive inefficiency occurs "when more resources than necessary are used to produce a good or service, either because it is not supplied by the lowest-cost supplier or because suppliers would use fewer resources."⁴⁹⁶ As long as prices faithfully reflect costs, one can assume that utilities with the lowest prices will be the most efficient.⁴⁹⁷

EEI's economists faced the problem that if existing plants really are more efficient, why are the *average* costs of some plants facing stranded costs so much higher than those of new plants? To the extent that those costs reflect variable expenses like higher operating expenses or plants with poor fuel choices, short-run efficiency dictates shifting to new suppliers. To the extent that higher costs reflect primarily sunk costs due to utility mistakes, there is nothing efficient about making customers pay the price. To the contrary, economic theory assumes that firms become efficient by paying for their mistakes. Losses are the stick that counterbalances the carrot of higher profits.

The economists sidestep the uneconomic nature of stranded costs by treating them as if they are not true economic costs. They quarantine stranded costs as special regulatory costs, in a judgment that is more political than economic. Though their report is 51 pages long, it makes no effort to prove that regulators caused these costs. Instead, the report simply repeats conclusory statements that stranded

495. See *id.* (defining productive efficiency).

496. *Id.* at 20.

497. There is a catch: existing plants already have consumed resources, so the productive efficiency question is whether society will spend fewer resources generating power from these plants *going forward* than by building new plants, even if those plants would be cheaper if everyone was starting from scratch. See *id.* at 39-40 ("Productive efficiency relates only to the use of present and future resources, because these are the only resources of society that can be economized or wasted."). The Economists' Report continues that given sunk costs, "[m]ost existing utility plants . . . are superior to any proposed new ones," so they should supply new power until society needs to build new capacity. See *id.* at 21.

The stranded-cost debate cannot really be over the use of physical resources, a standard that in essence would treat the fixed costs of all existing plant as zero because their physical inputs already have been consumed. Allowance of stranded costs, which in general will subsidize uneconomic fixed costs, should ensure that most of these plants will be used unless their variable costs exceed the total (fixed and variable) costs of new plants. But denying these costs does not mean inefficiency in production measured by physical inputs. Some of the companies with the largest stranded costs might be forced into bankruptcy, but their assets should be sold as long as the assets can match the marginal performance of alternative power sources. Thus even without stranded-cost recovery, today's sunk assets still would be used when it is efficient to do so. Indeed, the biggest risk of overuse of the wrong assets is with cost-recovery not based upon true efficiency. If inefficient utilities are repaid for bad investments, they will have the cash to employ resources the market would idle, all in an effort to deter new entrants.

costs result from regulation.⁴⁹⁸ The economists assume that virtually all uneconomic sunk costs in current plant reflect unnecessary regulatory requirements. Were this true, the apparently lower price of new power would not demonstrate greater efficiency: "nonutility generators . . . competitive advantage today stems from almost entirely the large gap between their marginal costs and the regulated rates of many franchised utilities, and not from the differences in their respective marginal costs."⁴⁹⁹ It is only on this unsupported assumption that they can claim that full cost recovery does not reward inefficiency and therefore does not sacrifice the gains of competition.

2. *Cost recovery will not serve long-term productive efficiency*

EEI's economists may dismiss criticisms based on short-term productive efficiency in a facile fashion out of eagerness to get to the future. Long-term productive efficiency is harder to predict because it depends upon guesses as to which companies will be most innovative, as well as cost-minimizing, over time. Here the three economists claim to find "the greatest opportunity for genuine improvements in productive efficiency."⁵⁰⁰ They find "ample reason" to think that a structure putting risks on investors will better deploy resources.⁵⁰¹ Implicitly, the economists are saying, "don't worry about costs today, because there isn't much to be gained there, but take it on faith that tomorrow we will see real improvement if you just pay back those stranded costs."

This stress on long-term efficiency mirrors a common assumption among economists that "dynamic" efficiency, efficiency over time in

498. The EEI Economists' Report abounds with euphemisms and generalities. Current utility sunk costs "were, *in effect*, undertaken jointly by utilities and regulators," costs that regulators "reviewed," or costs where regulators "made the policy decisions *with more or less specificity*." EEI ECONOMISTS' REPORT, *supra* note 36, at 15 (emphasis added). Regulatorily-imposed costs are "asymmetrical burdens" imposed on incumbents. *See id.* at 26-27.

Similarly, in Baumol and Sidak's brief for cost recovery, one finds stranded costs portrayed as "outlays [that] have been *approved* by the regulatory agencies," and the claim that "*many* were imposed on the utilities by those agencies," Baumol & Sidak, *supra* note 488, at 835 (emphasis added); as incumbency burdens, *id.* at 837; and cushioned by the claim that "*considerable portions* of those costs were incurred involuntarily," *id.* at 839 (emphasis added). Baumol and Sidak conclude that there is a "compelling efficiency reason [to allow] *substantial* recoupment," *id.* at 841 (emphasis added), a recovery that blossomed into full recovery by the time Baumol joined the *EEI Economists' Report*.

The question of responsibility is a complex one, and it cannot be answered by such facile assertions that only regulators (or only utilities) "caused" the costs that will be stranded.

499. EEI ECONOMISTS' REPORT, *supra* note 36, at 20-21. Not surprisingly, given this beginning, though the economists admit that *other* deregulated industries have enjoyed "substantial improvements in short-term productivity," they claim that the chance for such gains in electricity "are very limited in the short-run." *Id.*

500. *Id.* at 22.

501. *See id.* at 21-22 (discussing promise of long-run efficiency improvements).

innovation as well as in resource allocation, is critical for an economy's growth. The long-term benefits of competition are an article of faith among most supporters of deregulation. But guessing which companies will use resources most efficiently in the long-run is no simple task, and the *EEI Economists' Report* offers no reason to suspect that the efficient companies of the future will be those that sponsored today's stranded assets. Indeed, other things being equal, tomorrow's most efficient companies are likely to be the companies with today's lowest marginal or forward-looking supply costs for each unit of power. Regulations should encourage these companies to take more risks and to invest more money. Moreover, they should promote an environment of multiple firms to spur innovation. Both low costs and a multiple-firm market suggest sending business to a lot of today's entrants.⁵⁰² Guaranteeing stranded costs, which among other things will give incumbent firms billions of dollars to fight off entrants, is the wrong strategy.

The utility response is that regulation has distorted the costs of established electric companies, and that if you remove their regulatory handicap, many current utilities will be as much or more efficient than new entrants. As with short-run efficiency, here too regulatory costs have to be equalized before comparisons can be made fairly. To the extent that regulation has arbitrarily increased incumbents' costs but not entrants', consumers who pick a supplier by price alone will just be selecting the company that has been least hampered by regulation and not the most efficient company.⁵⁰³

This utility argument relies on the same claim that the bulk of the cost differences between existing and new generation is due to *regulatory* costs embedded in old plant and contracts. Economists generally start with the different assumption that cost differences reflect differences in efficiency. Markets police efficiency using the price mechanism to punish firms that do not compete productively. Because EEI's economists do not try to prove that large utilities' higher costs

502. As the electricity experience painfully teaches, however, a more accurate comparison will weigh costs not only for regulatory distortion, but in addition, for the period when power systems underwent their major expansions. A firm that serves a region where population and demand increased rapidly during periods of high prices may have higher prices through no fault of its own—i.e., prices that still would match or beat all other companies that added capacity in the same time period. The best measure of current efficiency probably is some comparison of recent new generation.

503. See EEI ECONOMISTS' REPORT, *supra* note 36, at 26-27 ("If some suppliers are subject to regulatory cost burdens but others are not, competition among them will be distorted. . . . If in these circumstances a utility loses business to competitors, it may do so not because it is less efficient—indeed, it may be more efficient—but because it is required to perform more functions than they."). The Economists' Report talks about this handicap as the problem of "asymmetric burdens on incumbents." *See id.* at 26.

stem from regulatory impediments, they never prove their long-term productive efficiency argument either.⁵⁰⁴

The efficiency problem of Order No. 888's subsidy for stranded costs is magnified by the exit fee used to structure recovery. Here the Commission guaranteed delay in achieving a competitive market. Rather than compile a company's net loss for all its departing customers and spread those costs across all customers, the Commission will let a utility impose an "exit fee" billing a departing customer for the revenues "lost" due to its departure.⁵⁰⁵ Such "direct assignment" will remove many customers' incentives to switch: "[T]he departing generation customer may see little or no savings in the short-term by switching power."⁵⁰⁶ This mechanism of recovery was opposed by the two federal antitrust agencies, the Department of Justice and the Federal Trade Commission, because of its obvious inefficiency.⁵⁰⁷

504. The Report's approach presents an intriguing contrast to a standard economic approach. For instance, its explanation of differences in rates covers just about everything except the efficiency of the firm. See *id.* at 6 (attributing rate differences to "differences in fuel and construction costs, taxes, environmental requirements and in the mix of customers, load factors and service area density").

505. Order No. 888, 61 Fed. Reg. at 21,633-38 (discussing exit fee).

506. *Id.* at 21,636.

507. The problem with exit fees is that if a customer is going to have to pay for its old power anyway, it generally may as well use it. In contrast, if stranded costs were recovered through a fixed charge on all customers, regardless of whether they used an old supplier or new supplier, they still should pick the most efficient, least-cost producer as they weighed the marginal cost of each additional unit of power. Even ComEd's economists reach this conclusion. See COMED COMMENTS, *supra* note 25, LAW AND ECONOMICS REPORT, at 55 n.54 ("Exit fees as the only instrument for stranded cost recovery are incompatible with a competitive and unregulated wholesale market.").

Both the Department of Justice and the Federal Trade Commission, which conspicuously and somewhat oddly took no position on the propriety of recovering stranded costs generally even though that is the major competitive issue, criticized "excise fees" as a recovery mechanism. See COMMENTS OF THE U.S. DEP'T OF JUSTICE 15 (Aug. 7, 1995) ("[E]xcise approach effectively increases the unit price of a customer's future services, likely leading the customer to reduce its future electricity purchases and to accept substitutes . . . that are more costly."); see also COMMENTS OF THE STAFF OF THE BUREAU OF ECON. OF THE FTC 35 (Aug. 7, 1995) ("Structuring stranded cost recovery as excise charges is likely to distort price signals and lead to inefficiencies."); COMMENTS OF THE VT. DEP'T OF PUB. SERV., *supra* note 394, at 9 (arguing that Commission had found on analogous natural gas issue that "exit fees would stifle the development of a competitive industry by forcing customers desiring to switch suppliers when their contracts expire to pay the supply costs of both their new and former suppliers"); NRRRI COMMENTS, *infra* note 510.

When the Commission explained its decision to use exit fees, it largely ignored efficiency concerns and instead shifted to the different principle of "cost causation"—customers should pay the costs they had created. FERC did not show, however, how departing customers are responsible for the gap between their utility's average costs and those in a competitive market, which is the cost causation that should matter for stranded costs.

The Texas PUC suggested that the Commission had to deal with the problem that "direct assignment," though giving the most protection for recovery, "could also significantly impede the creation of a more competitive wholesale market by making it prohibitively expensive for a utility customer to obtain a new supplier," and should put only part of the costs on the exiting customer. See TEXAS PUC COMMENTS, *supra* note 451, at 5.

Naturally, one would expect utility trade groups to want to prolong their members' control

Charging departing customers with the full estimated lost revenues discourages customers from leaving. Even the Commission admitted that full stranded cost recovery "may delay some of the benefits of competitive bulk power markets."⁵⁰⁸ In Order No. 888-A, it added that "[t]here is no question that, without the stranded cost recovery mechanism, some customers would be far more likely to switch to lower-cost suppliers and enjoy sooner the benefits of a competitive power market."⁵⁰⁹ Those who opposed full recovery were generally more blunt.⁵¹⁰

Full cost recovery is also inefficient because it removes the utility's incentive to seek out savings in its own operations. It is little surprise that one gas industry report found that pipelines sharply reduced

over their markets as long as possible, and so to endorse exit fees because these are likeliest to deter customers from shifting to other suppliers. See EEI COMMENTS, *supra* note 23, at 84 ("Direct assignment is preferable to a general surcharge or general access fee because it would ensure that the customers for whom the costs were incurred pay them."); *id.* at 93 (listing direct assignment as "first-best" solution).

Moreover, exit fees seem to contradict language that FERC may now regret in two of its natural gas adjudications, in which the Commission held that exit fees on departing natural gas customers were inconsistent with competition. The Commission will have some trouble with its language in *Transwestern Pipeline Co.*, 44 F.E.R.C. § 61,164, at 61,536 (1988) ("assessment of an exit fee is inconsistent with the Commission's objective that prices under the GIC be constrained by market forces"); *El Paso Natural Gas Co.*, 47 F.E.R.C. § 61,108, at 61,314 (1989) (reaffirming *Transwestern* reasoning, and adding that exit fees fail to let customers know "full cost consequences" of exit decisions in advance).

In Order No. 888-A, FERC came up with what probably are good-enough reasons, given the deferential review of agency orders, to distinguish these cases. In *Transwestern*, the pipeline was trying to levy charges on customers after they had left the system entirely, customers whom Order No. 888 does not affect in electricity. See Order No. 888-A, 62 Fed. Reg. at 12,394-95 & n.613. One order in this sequence even held that, in some circumstances, exit fees would be proper. See *id.* at 12,395 & n.619 (exit fees may be approved under "appropriate" circumstances). And as for the *El Paso* case, *El Paso's* customers were trying to depart from the system entirely, not stay on the transportation network but use it for third-party energy. See *id.* at 12,395-96 (discussing differences in *El Paso's* rejected exit fee).

508. Order No. 888, 61 Fed. Reg. at 21,633; see also *id.* at 21,636 ("[I]t is possible that some customers may not be able to afford to leave as soon as they would like."). While the Commission claimed that "[n]umerous parties representing all constituencies support direct assignment," *id.* at 21,633, others objected that, among other things, it "would discourage customers from switching to other generation providers and would thereby inhibit competition," *id.* at 21,634 (citations omitted). Some understandably questioned whether departing customers were the sole cause of stranded costs. *Id.* (footnote omitted).

509. Order No. 888-A, 62 Fed. Reg. at 12,374.

510. See, e.g., NRR comments, *supra* note 441, at 19-20 ("The Commission's proposed policy cannot help but appear to be protection for inefficient utilities Even if the Commission were able to implement its proposal unchallenged, it would take years for the benefits of competition to reach consumers."); COMMENTS OF THE CITY AND COUNTY OF S.F. 11 (Aug. 7, 1995) [hereinafter S.F. COMMENTS] (discussing what City calls FERC's proposition "that those that seek to avail themselves of competitive alternatives must reimburse the incumbent utility *en toto* for the very costs that rendered its rates uneconomic in the first place. . . . [T]he Commission may have created a zero-sum game, in which savings from competitively acquired power are offset dollar-for-dollar by stranded investment responsibility."). The most specific charges of delay arose in comments about FERC's use of exit fees. See *supra* notes 507-08 and accompanying text.

their take-or-pay costs because they "had powerful incentives to hold restructuring cost levels down."⁵¹¹ Full recovery, in contrast, "[b]lunts utility incentives to lower costs and mitigate transition costs."⁵¹² Programs like FERC's and California's remove efficiency pressures.

3. *Cost recovery does not serve allocative efficiency*

The three economists admit that stranded cost recovery will send the wrong "allocative" signals.⁵¹³ Allocative efficiency "requires either that prices be set precisely at marginal or incremental costs or . . . [with] mark-ups . . . to the extent necessary to recover those capital costs."⁵¹⁴ Do the rates let customers know how much it really costs to generate each kilowatt they purchase? If prices are bloated with historical costs built into an outdated plant, rates will not come close to real costs.⁵¹⁵ Though allocative efficiency will be lost with full cost recovery, EEI's economists believe that "the balance of equity and productive efficiency considerations weighs heavily toward ensuring continued recovery of approved costs during a finite transition period."⁵¹⁶ From their perspective, the most important value is the long-term efficiency of competition.⁵¹⁷

One should not fault EEI's economists for failing to prove the regulatory predicate of their argument for a full subsidy of stranded costs. Most lawyers and others who filed comments did no better. Even if economists have no comparative advantage in interpreting history, there is no reason why they should be precluded from competing with lawyers for advocacy work. But the Commission should view the EEI Economists' Report for what it is, assertions contained in a very interested party's briefing, rather than an objective demonstration, or even an indication of how such a demonstration would be made.

Making regulated companies bear a good share of stranded costs

511. INGAA BACKGROUND REPORT, *supra* note 26, at 1, 7.

512. ROSE, *supra* note 3, at 88-89. For pipelines, in contrast, incentives were preserved because "pipelines were not permitted to recover their restructuring costs fully because of Commission policy, competitive pressures, or both." See INGAA BACKGROUND REPORT, *supra* note 26, at 7.

513. See EEI ECONOMISTS' REPORT, *supra* note 36, at 40 (describing how stranded cost recovery holds prices farther above marginal costs than required for efficiency).

514. *Id.* at 22.

515. See *id.* at 40.

516. *Id.* at 49. The economists admit that "[t]here is therefore an undeniable conflict between permitting utility companies recovery of their stranded costs and allocative efficiency," *id.* at 40, though they say it is a "second order" conflict and one that can be mitigated, see *id.* at 40, 49.

517. See *id.* ("The most important thing that policy makers can do is to put in place a structure that encourages the long-term efficiency gains that competition promises.")

advances efficiency in several ways. First, it ensures that companies have every incentive to operate at maximal efficiency by selling uneconomic assets and minimizing costs on assets they do operate, since they will have to pay for the stranded costs.⁵¹⁸ Second, it clears the way for new entrants to appear and force competition into the industry because it prevents the use of cost recoveries to set prices below costs.⁵¹⁹ Third, it guarantees that consumers will get the full benefits of lower prices that competition can bring.

In contrast, the decision to protect utility investments and shield them from market forces, even where their inefficiency and their discrimination in shielding them from market forces has risen to a level that requires deregulation, is inconsistent with the economic reasons for deregulating.⁵²⁰ Efficiency is not an impressive argument for Order No. 888.

E. Full Cost Recovery is Likely to Maximize Litigation

One argument often raised to justify full stranded-cost pass-through is that it achieves a great long-term gain for consumers by concessions on stranded costs.⁵²¹ In this reading, full pass-through is the price of paying off large and politically sophisticated companies that could use their power to delay change through political and legal opposition. And, indeed, if deregulation produces gains as large as \$50 billion or more a year,⁵²² while stranded costs fall somewhere in a range from \$50 to \$200 or even \$300 billion,⁵²³ a Commission that had no other alternative still might forgive all stranded costs and proceed with deregulation.

The desire to avoid litigation costs has been important in other deregulations. For instance, one justification for Order No. 500's equitable sharing was FERC's concern with the cost of litigating responsi-

518. In contrast, rewarding companies that have bought the wrong assets shifts resources away from economically efficient firms toward inefficient companies. As one would expect, utilities that played by the rules and did not amass large stranded costs make this point vociferously. See *supra* note 445 and accompanying text.

519. For a discussion of full cost recovery's impact on predatory price setting by utilities, see TEICHLER, *supra* note 71, at 7.

520. The reliance argument undermines the purpose of deregulation if it is carried to the extreme that allows full stranded-cost recovery. If regulations like qualifying-facility requirements were the only reason that utilities operated inefficiently, then FERC could have reinvigorated the market simply by repealing the offending regulations. The many steps taken to encourage new companies to enter the generating market make little sense if regulators assume that utilities have been doing a good job.

521. See Conlon, *supra* note 207 (observing that if utilities did not get relief "to some degree," they would not have supported deregulation). The issue, of course, is not whether utilities should get a "degree" of relief, but why they should get the windfall of total relief.

522. See generally *supra* note 59.

523. See *supra* notes 21-26 and accompanying text.

bility for high-priced gas.⁵²⁴ That is why the Commission created a structure where pipelines were to bear between 25% and 50% of take-or-pay gas costs, but customers were saddled with a strong disincentive to sue because an appeal might let pipelines recover *all* prudent gas costs. Order No. 500 sought "to avoid, to the extent possible, lengthy and potentially complex hearings" on blame for stranded gas costs.⁵²⁵ The CPUC was just as blunt about its desire to avoid "the litigious, adversarial environment of the hearing room."⁵²⁶

The problem with such a motive is that FERC's and California's stranded-cost solutions placate only one side, the utilities. Even if measured just by litigation-avoidance attributes, the solutions are failed remedies. Full stranded-cost recovery does almost nothing for electricity consumers. By offering them so little on stranded costs, it forces consumers to fight over every aspect of the recovery mechanism. Order No. 888 should create far more disputed issues than it solves.⁵²⁷

Many new issues have come into play. First, of course, any costs that have not been "recovered" will be fair game. The prudence analysis will be a strange one because the general findings concerning the inefficiency of large plants in Order No. 888 are strong evidence that utilities were imprudent. Still, litigation involving unrecovered assets will center on timing issues of whether the inefficiency was evident years ago when investments were made.⁵²⁸

524. See Order No. 500, 52 Fed. Reg. at 30,341, 30,343 (expressing confidence that resolution of take-or-pay costs would be achieved best by settlement rather than costly and protracted litigation).

525. See *id.* at 30,341.

526. See CPUC ORDER INSTITUTING RULEMAKING, *supra* note 203, at 7-8.

527. In one of its attempts to show that the Order was balanced, the Commission treated the immediate cost from stranded costs as insignificant compared to the long-term benefits customers should reap from competition. See Order No. 888-A, 62 Fed. Reg. at 12,393:

[T]he stranded electric costs that are subject to the direct assignment provisions of Order No. 888 are ordinary costs that have always been, and are currently, included in the utility's rates for electric generation approved by the Commission. . . . [A]ll that the direct assignment provisions of Order No. 888 require is that certain customers . . . bear certain generation costs that they were previously bearing.

Certainly stranded costs are costs that some customers almost certainly would bear anyway if there was no open access, i.e., if regulators worked hard to prevent customers from shifting to any competitive sources of supply. The problem with this argument, as with the Order overall, is that it once again ignores utility responsibility for these high costs. Sure, customers might have to pay even astronomical costs in a corrupt regulatory regime that created power monopolies and would not let customers shift on any condition, but this hypothetical state of affairs hardly justifies Order No. 888.

528. Order No. 888 does not make it clear whether unrecovered costs in the rate base can be challenged, even though such a challenge would seem to violate the general intent that old prudency issues not be relitigated. The Commission did say that "we clarify that we do not intend to relitigate the prudence of costs previously recovered." Order No. 888, 61 Fed. Reg. at 21,664 (emphasis added); see also Order No. 888-A, 62 Fed. Reg. at 12,391 (same). But "recovered" costs are not identical to costs allowed in the rate base. If the prudency shield is

Second, orienting recovery of stranded costs around a company's "reasonable expectation" of continuing service creates a large new area for disagreement. Utilities can recover only to the extent, and for the period, that they had a "reasonable expectation" of serving a departing customer, and only for costs attributable to the departing customer.⁵²⁹ Every element of the reasonable expectation standard can be disputed. Though FERC has suggested a few guides to weighing the evidence, its insistence that each case be decided on its own, under all the circumstances, suggests the potential for great factual intricacy.⁵³⁰ Departing customers will deny that capital costs were incurred to serve their demand and try to foist the costs off on other customers. Also, they will deny that there was a reasonable expectation that they would continue as customers. If a utility has a nuclear plant with average costs per kilowatt hour somewhere between nine and fifteen cents, will FERC let a customer show that it was foreseeable that new combined cycle plants would have costs of three to five cents, and then argue that no utility could have a reasonable expectation that customers would keep buying such expensive nuclear power indefinitely? Even if the utility had a reasonable short-term expectation, surely that expectation became less and less reasonable as time passed and the price gap between the two plants widened: It was foreseeable that if the cost differential grew, more and more customers would leave. The threat to cost recovery increased even more after FERC imposed open access on natural gas in 1985. Many cus-

limited to costs recovered, this is a statement of the filed rate doctrine. If costs allowed in the rate base for past recoveries cannot be relitigated even with regard to whatever future recovery remains, the protection is much broader.

529. Order No. 888, 61 Fed. Reg. at 21,635, 21,651-54.

530. See *id.* at 21,653 ("Whether a utility had a reasonable expectation of continuing to serve a customer, and for how long, will be determined on a case-by-case basis, and will depend on all of the facts and circumstances." (footnote omitted)). The morass into which recovery disputes may fall is suggested by the Commission's statement that the expectations test "would be easily met" if state law imposed exclusive service territories and a mandatory obligation to serve, at the same time that it has indicated that a notice of termination in a power contract "creates a rebuttable presumption that the utility had no reasonable expectation of serving the customer beyond the specified period." *Id.* at 21,651, 21,653.

Neither of these presumptions appears particularly well-founded. The first gives utilities too much protection. Deregulation should be a judgment that the ordinary regulated franchise did not constitute a guarantee that utilities would be protected from competitive forces or from the consequences of their own inefficiency and discrimination. A mere obligation to serve should not become a shield to cover a multitude of investment sins. On the other hand, the notice provision standard is too harsh. Many parties insert notice provisions in contracts that they fully expect to continue, as a matter of prudence. Thus notices will appear in contracts with long-term, contented friends who expect to be in business together for years, but also in contracts with the most suspicious, marginal-cost-addled power users. These presumptions ought not and with luck will not let the Commission escape the full weighing of long-term plans of both parties and their communications with each other, before it makes the fairest decision on reasonable expectations.

tomers should find it easier to dispute the duration of this expectation than its initial foundation.

Cost causation has its own host of issues. Utilities may not have specific plants earmarked for specific customers, but they will have no reason not to try to recover the most revenue they can allege from each departing customer. The customer, in contrast, has every reason to argue that its power would have come from excess capacity, and to dispute its responsibility for utility costs.⁵³¹

Then there is mitigation. Though FERC refused to make utilities pay some stranded costs as an incentive to minimize costs,⁵³² it did require two kinds of mitigation. The utility will have to show that it took reasonable mitigation steps, and the Commission will subtract the "competitive market value of the power . . . from the revenues that the customer would have paid had it stayed on the utility's generation system."⁵³³ Customers will have a right to get the utility to estimate this market value credit, and a right to broker their capacity if they think they can get a better deal.⁵³⁴ The "true" market value of released capacity offers yet another area for dispute.

The room for dispute seems smaller in California, in part because the CPUC did not use a "reasonable expectations" standard, and because stranded costs are going to be tested in the marketplace as it develops, but primarily because the CPUC seems unlikely to permit much debate. The utilities may predict the future fairly well when they claim that "[r]ecovery of transition costs, consistent with AB 1890, is now a matter of law."⁵³⁵

Though the Power Exchange will establish the benchmark for power costs, there still should be room to dispute whether the companies auctioned their generation plants in a process that truly captured a market price, prudently renegotiated their Qualifying Facility contracts, and prudently maintained or shut down nuclear plants.

531. For instance, the Vermont Department of Public Service argued that it will not be easy to directly assign generating costs to departing transmission customers. It claimed that "[t]he costs being debated relate to the costs to provide *system* power supply, not to supply specific loads." COMMENTS OF VT. DEP'T OF PUB. SERV., *supra* note 394, at 17. This argument is an ironic reversal of the conclusion that utilities drew from calling stranded costs "system costs." The utilities concluded that some part of a "system" outside the utilities should bear those costs.

It is fair, at a minimum, to anticipate that the assignment of lost revenues to departing customers will be another fruitful area of litigation.

532. See Order No. 888, 61 Fed. Reg. at 21,634.

533. *Id.* at 21,644, 21,654.

534. See *id.* at 21,658-61. Customers will not waive their right to challenge the estimated market value if they try to broker the capacity opened up by their departure. See *id.* at 21,661.

535. SOCAL TRANSITION COST POLICY, *supra* note 255, Executive Summary at 2. The CPUC seems to agree with this reading in result. See Decision 97-06-060, *supra* note 293, at 34-41 (agreeing that transition cost recovery is mandated by law).

The outcome of California's deregulation to date, however, does not give cause for hope that the CPUC will hold utilities to a high standard of performance anywhere in the stranded-cost process.

Estimating who will benefit from litigation over Order No. 888 depends upon the relative power of the parties, as well as the merits of their positions. Lawsuits are messy, costly mechanisms that respond to power and resources, so the cases will reveal a lot about the industry's balance of power. Natural gas deregulation is a reminder of how far seemingly clear legal rights can be realigned by unequal resources. It appeared to be a great victory for producers when FERC refused to intervene in take-or-pay disputes and left those battles to the courts.⁵³⁶ After all, courts generally enforced take-or-pay contracts when these cases reached them.⁵³⁷ Yet in spite of the law's falling with producers in take-or-pay disputes, pipelines extracted the lion's share of settlements.⁵³⁸ What can be predicted in electricity is that, given the much greater amount at stake, far more resources will be spent litigating responsibility for its stranded costs than were devoted to the pass-through of stranded gas costs.⁵³⁹

Even if one assumes implausibly that there will not be much litigation over Order No. 888 recovery mechanisms, neither the Order nor California's mechanism can be justified by the theory that the costs of litigating the right to recover would have exceeded any benefits.⁵⁴⁰ Such a trade-off might have been attractive if all that stranded-

536. The Fifth Circuit stayed one take-or-pay case pending Commission action, *Wagner & Brown v. ANR Pipeline Co.*, 837 F.2d 199 (5th Cir. 1988), but the Commission quickly decided that it would not be the forum to decide what it views as private contract disputes. This decision articulates the Commission's substantive belief that take-or-pay disputes "are primarily a matter for resolution between the parties involved." Ceiling Prices; Old Gas Pricing Structures, Order No. 451, 51 Fed. Reg. 22,168, 22,183 (1986) (footnote omitted).

537. For a good tally of take-or-pay cases, see J. Michael Medina et al., *Take Or Litigate: Enforcing the Plain Meaning of the Take-or-Pay Clause in Natural Gas Contracts*, 40 ARK. L. REV. 185 (1987), updated in J. Michael Medina, *A Report from the Battle Zone: The Take-or-Pay Wars*, 58 OKLA. B.J. 2254 (1987), and J. Michael Medina, *Take-or-Pay Oklahoma Style*, 60 OKLA. B.J. 705 (1990).

538. See *supra* note 121 (relating take-or-pay settlement amounts). In spite of the uncertainty over the accuracy of the costs listed, this seems to be the only possible conclusion from the wildly pipeline-favoring settlement ratios identified in Order No. 500-H.

539. But see EEI COMMENTS, *supra* note 23, at 74 ("An informal survey of EEI members indicates that the number of cases likely to be filed at FERC seeking to recover stranded costs from wholesale requirements customers under existing contracts will be far less than those filed during restructuring of the natural gas pipeline industry."). This contention is another example of special interest pleading. Of course EEI members will say that they won't be litigious, if they are given full pass-through. Promise electricity consumers that you'll make utilities pay all stranded costs, and consumers will be just as happy to look on Order No. 888 with equal favor and stay out of the courts.

540. This may be what EEI's economists mean when they announce (and by so doing, underline the threat) that "[m]aking provision for the recovery of costs that would otherwise be left stranded by competition will undoubtedly increase the willingness of utilities to cooperate in the transition. . . . Whether their resistance is evidenced through lobbying, litigation, or oth-

cost adjudication would show is that regulatory commissions somehow manufactured electric companies' bad investments. Then the final result might be a series of orders making customers pay these costs anyway. In this event, Order No. 888's and California's restructuring might embody a grandly prudential judgment that individual litigation over recovery issues would cost more than it would be worth.

The first problem with this litigation-avoidance theory is that there is no administrative record for such a finding. Neither FERC nor the CPUC made any findings about litigation costs or the probabilities of litigation success, weighed the evidence relevant to such a balance, or gave any sign of reasoned decisionmaking on this point. Equally problematic is the one-sided nature of the Orders, which encourage litigation. FERC and California have given utilities almost complete relief for stranded costs, while giving customers virtually no benefit. In contrast, Order No. 500 was a true litigation-avoidance rule; it tried to give each side more than they might expect from ordinary litigation, and so muted the pressure for dispute. Customers have every reason to challenge the stranded cost provisions in the electricity orders, and no particular reason to accept them.

Finally, the litigation-avoidance argument wrongly assumes that utilities would fight any order except one that provides for full pass-through. The opposite is true—in a market unblest by Commission intervention, electric companies would risk paying for *all* stranded costs. Utilities would have an incentive to avoid litigation in any number of intermediate remedies, including an equitable sharing formula like that in Order No. 500. Going from full recovery to equitable sharing might increase utilities' incentive to sue at the margin, but it would reduce customers' disaffection much more. On balance, this kind of measured relief would have created a much wider pool of support for Order No. 888.

VI. GENERATING PROGRESS

The most important electricity questions involve the future, not

erwise, it will inevitably delay the attainment of benefits from competition and consume some of them in unnecessary transaction costs." EEI ECONOMISTS' REPORT, *supra* note 36, at 41.

It may well be true, as the EIA interprets Order No. 888, that FERC "recognized that utilities may not be willing participants in the absence of assurance concerning the recovery of stranded costs of investments." EIA UPDATE, *supra* note 10, at 54. Certainly utilities will say that they will not participate without an assurance of recovery, if they have any reason to think that this will increase their relief. So would any party. But Order No. 888 does not show that these companies can defeat deregulation unless they get full stranded-cost protection, nor does it discuss the new incentive it has created for customers to refuse "participat[ion]," to see if they too can bully their government regulators.

the past. FERC and California have decided what they want to do about stranded costs and are unlikely to change. But most states have yet to deregulate, and so the great majority of stranded costs remain unallocated.⁵⁴¹ If these states return to the cost responsibility standard that FERC used in natural gas, they will produce more efficient and fair results.

This standard would not require utilities to pay for all of their stranded costs. A cost responsibility rule calls for balance. There is no need to replace the one-sided rule in Order No. 888 and California's deregulation with another equally one-sided rule, as if policies can only be taken from extremes. Regulatory distortions probably were greater in electricity in most states than in natural gas, so utilities presumably would recover more than pipelines under a well-administered cost responsibility test. But first those relative responsibilities have to be established.

The one-sided nature of the early recovery mechanisms suggests that utility concerns dominated the stranded-cost debate. This is not surprising given the amount at stake and the superior organization of most utilities compared to the groups who want lower rates, particularly consumer groups. The fact that utility concerns seem to have captured the treatment of stranded costs, however, and that a fair allocation of those costs requires a determination of regulatory blame as well as of company error, suggests that the body deciding the fate of stranded costs should not include commissioners who were in office when the uneconomic costs were incurred. These commissioners would be sitting as judges in their own case, were they to decide the balance between firm error and regulatory distortion.

Finally, though Order No. 888 and California's restructuring are certain to remain fundamentally the same, mitigating steps remain possible even there. FERC and the CPUC can interpret their rules to salvage at least some of the responsibility that electric companies should bear for today's cost excesses. Other states can learn from the mistakes in these two proceedings, and can return to cost responsibility (the principle of free markets and efficiency, as well as of FERC's natural gas deregulation) as the foundation for a better recovery mechanism.

A. Cost Responsibility Should be the Key to Cost Recovery

The principle best suited to allocating electricity's unwanted costs is the principle that markets use, and that FERC applied to natural

541. See *supra* note 10 (discussing various state initiatives in brief).

gas: cost responsibility. This principle suits efficiency concerns, accords with the only well-grounded expectations of the parties, and allows enough variation to accommodate the places where unwise regulatory intervention, rather than utility mistakes, is responsible for unwise investments.

One way to see why cost responsibility should be the guiding principle is to consider the functions implied by the structure of regulated electricity. Although traditional regulation gave regulators the power to cap rates and control entry, perhaps its most significant aspect is that it left power ownership and planning, the entrepreneurial function, in private hands.⁵⁴² The companies kept title to their plants and contracts; they retained all profits they could reap under their rate caps; and they still planned the mix of power sources, plant sizes, and other aspects of capital investment.⁵⁴³ The state did not assume responsibility for investment decisions or their implementation. The result of differential company efficiency has been a wide range in average power costs and in the type of power generation among regulated utilities.

That American regulation respected firms' supposed comparative advantage in structuring power sources can be read from relative staffing. In virtually every utility rate hearing, the staff and other resources the utility devoted to its application dwarfed those of the overseeing agency.⁵⁴⁴

Second, the primary purposes of regulating and deregulating power are economic. This is another reason that it is fair to apply an economic test to losses incurred on a regulated company's watch. The Federal Power Act requires "just and reasonable" rates and bars discrimination.⁵⁴⁵ State acts generally use similar terms. Whatever the actual motive for regulation, the theoretical justification for rate caps and entry barriers was to have government push prices down to the "efficient" level where excess profits would not exist and pricing would approximate marginal costs.⁵⁴⁶ Deregulation has occurred primarily because Congress and many states have come to believe that government-aided competition is more efficient in doing this than traditional regulation.⁵⁴⁷

542. See ROBERT CRANDALL, *ECONOMIC DEREGULATION AND CUSTOMER CHOICE: LESSONS FOR THE ELECTRIC INDUSTRY* 61-63 (Brookings, 1997).

543. PURPA and its QF contracts muddy even this comparison because utilities were, to some extent, forced to buy power from other suppliers. But even here, there was mixed responsibility. See *infra* notes 566-68 and accompanying text.

544. See *supra* note 359 and accompanying text.

545. 16 U.S.C. § 813 (1994).

546. See YELLOW REPORT, *supra* note 14, at 47.

547. Cf. JOSKOW & SCHMALENSEE, *supra* note 175, at 8 ("The electric power sector is notable

Economic standards punish firms that make mistakes and reward those that guess or plan well. A cost responsibility structure that penalizes firms for mistakes they made while permitting them to pass on costs imposed by agency mistake accomplishes that aim. To the extent that we are making this massive change in industry structure to lower rates and spur innovation, this benchmark of markets ought to guide the allocation of losses.

Section V discussed each argument that FERC and the CPUC gave as substitutes for a cost responsibility standard. Each has a fundamental flaw. For instance, the regulatory "bargain" or "compact" never protected electric companies if their costs greatly exceeded the unfolding market. To the extent that agencies forced electric companies to sign contracts or build plants that they opposed, or that they never would have built without promises of recovery (not promises of an opportunity to recover, but of recovery itself), agencies became the true decisionmakers, crafted the companies' path, and should be held responsible.⁵⁴⁸ But to the extent that agencies merely approved plans embodying what we now know are firm mistakes, plans laid before the agencies by better staffed and organized firms that stood to reap profits from capital-intensive operations, regulators should not be blamed for company mistakes. This division of losses may be made fairly in the context of a cost-responsibility rule.

A cost responsibility standard avoids the irrelevancies of financial integrity and cost causation. None of the stranded-cost studies show that a majority of electric companies face crippling stranded costs, or that having some companies fail would drive capital from the electricity markets. The bankruptcy of the companies that entirely misread their evolving market may be the quickest way to redistribute their assets, bring in new management, and spur better operation. It is true that some of these companies are among our largest utilities, but if FERC, the CPUC, or other regulators believe that they must protect some big companies from failing,⁵⁴⁹ let them design limited

because of its economic importance, so policy directed specifically toward it most naturally focuses on economic efficiency rather than on general goals best pursued through economy-wide policies.").

548. There is an unfairness in making consumers pay all costs of regulatory errors because the consumers who pay these costs often had no say concerning (and even may have opposed) the agency rule. This is why careful stranded-cost studies have to look at the extent to which agencies really commanded the companies' investments, compared to the extent to which the companies captured the agency process (or at least the agency did not stand in the way of company decisions).

549. The outcome does repeat a tendency that some have seen in ordinary rate hearings, namely, to honor an "implicit understanding that no PUC shall allow a utility to go bankrupt." KALT ET AL., *supra* note 356, at 22. This inclination results in greater rewards for the inefficient than the efficient, because it forces agencies to "be more generous in judging investments by

measures for these few companies. The companies would not need full recovery; there would be plenty of room for mitigation incentives and for shareholders still to pay some penalty.

As for cost causation, this principle would distribute costs by responsibility when properly applied. It does not, however, mean responsibility *among* customers, as if consumers' demand for power should be blamed for electric companies' selection of the wrong assets to supply that power. True cost causation means responsibility for particular uneconomic assets—supply accountability—and this responsibility needs to be divided between the companies and their regulators.

Finally, though past practice is not a sufficient reason to adopt a rule, it is worth noting that a cost responsibility test would be the same measure that FERC used in its primary natural gas rules. The difference would be that this time, agencies should explain how and why they are applying the standard. They could at last clear the ground for a rational public resolution of stranded costs by facing the repressed issue of which participants really are to blame for the massive losses facing the industry.

A cost responsibility standard is a powerful argument against federal treatment of stranded costs. The level of regulatory error varies by state, and states are the unit of government most likely to be able to accurately recreate just what went wrong. Moreover, because there are not that many large utilities per state, states are far better equipped to customize remedies if circumstances vary by company.

It is true that the cost-recovery mechanism will affect the competitiveness of states and their ability to compete in the national economy, but this is another reason why it is better to decide the remedy at the state level. It is only fair that states make the tradeoff between preserving the skills and ability of current suppliers and their competitive position.⁵⁵⁰ It is difficult to see any fairness in imposing a rule

utilities in poor financial condition than investments by utilities in good financial shape, even though the later are usually much better managed." *Id.* at 22. But if this is all Order No. 888 really intends to do on stranded costs—protect bankrupt companies that engaged in poor management—FERC should say so and let the courts decide where the chips should fall.

550. See CPI REPORT, *supra* note 5, at 5, 9-10 (arguing that variation in cost problems makes it only fair that states decide stranded-cost remedy, and noting that forced regional standards may make lowest-cost states want to move more slowly toward restructuring than others). *But see* IPALCO REPORT, *supra* note 280, at 30-34 (trying out argument that commerce clause requires national standards for, among other things, fair protection of consumers). Simple math suggests that low-cost states would find their rates rising if they were merged into larger regional suppliers, with no other changes. As a result, low-cost states are certain to require protections before signing off on changes like open access or, more importantly, mergers. But even low-cost states may find room for improvement. See Speech of Cheryl Parrino, Chairperson of the Wisconsin Public Utilities Commission, ABA Annual Convention (S.F. Aug. 5, 1997)

like Order No. 888 on retail costs nationally. In states where companies made the primary investment decisions and made them incorrectly, there is no good reason for the federal government to intervene on top of a prior state regulatory process and force consumers to pick up the tab for company errors. Conversely, if a state whose regulators forced unwanted costs onto companies tries to block pass-through, state courts are qualified to hear the resulting constitutional challenges just as much as federal courts. Moreover, because there will be a due process question, those dissatisfied with the final state-court decision may seek a writ of certiorari from the Supreme Court. The regulated firms that are happy with Order No. 888 naturally now want to replicate it in every state through a federal bill, but this is an argument of self-interest, not a broader policy.

B. If Utilities Deserve Different Treatment Than Pipelines, FERC and the CPUC Have Not Yet Shown So

The fact that FERC and state commissions can only reach a fair allocation of stranded electricity costs by deciding the responsibility that utilities bear for their mistakes, overinvestments, and discrimination does not mean that the electricity industry would end up with the same proportionate burden as natural gas pipelines. There is no reason to expect this balance to be the same in electricity as in gas.

One important distinction between the two industries is the painful cure already doled out to electric utilities for unwanted nuclear plants. Nuclear plants provide much of the nation's electricity—22 percent in 1991.⁵⁵¹ Utilities have written off over \$20 billion for these plants.⁵⁵² To the extent that commissions already have adjudicated the blame and cost that utilities should bear, the residual costs presumably would be passed through in their entirety.

A distortion more direct than in natural gas comes from qualifying-facility ("QF") contracts. These contracts forced utilities to buy very uneconomic power. Under the peculiar structure of PURPA, states set the standards under which utilities had to purchase power that matched the utilities' avoided costs.⁵⁵³

(noting that though Wisconsin has sixth or seventh lowest rates in country, and though co-ops, municipals, and industrial customers opposed retail competition, Wisconsin PUC expects savings if generation is opened to competition).

551. See EIA REPORT, *supra* note 15, at 13, fig. 12. Not only is nuclear power second only to coal, but what is striking is that the amount of power produced from each of these sources has increased a lot since 1970. Nuclear power provided only 1.4% of the country's electricity in 1970, compared to 22% in 1991. See *id.* at 12.

552. See *supra* note 179 and accompanying text.

553. See *supra* note 40 and accompanying text.

It is fairly obvious today that "[m]any state PUCs and legislatures greatly overestimated long-run avoided costs, thus forcing utilities to buy huge amounts of overpriced power."⁵⁵⁴ Some state commissions overestimated the amount (as well as price) of the power needed.⁵⁵⁵ SoCal, one of the countries' largest utilities, claims that QF contracts will be its largest source of stranded costs, with its above-market QF payments having a net present value of about \$5 billion.⁵⁵⁶ It insists that "[t]hese QF contracts are the direct result of legislative and regulatory mandates."⁵⁵⁷ PG&E believes it will have \$5.3 billion in stranded QF costs.⁵⁵⁸ The EEI estimates the net present value of QF contracts nationally at \$38 billion.⁵⁵⁹ Another recent study projects the losses at \$42 billion, on top of an even greater \$53 billion in high-cost power contracts with other utilities.⁵⁶⁰ Not surprisingly, an industry association like the EEI does not feel that its members should bear these costs.⁵⁶¹ In many states, the level of government involvement in these contracts probably is markedly higher than in the ordinary take-or-pay contract.⁵⁶²

554. Black & Pierce, *supra* note 175, at 1347.

555. See EIA REPORT, *supra* note 15, at 24. The administration of qualifying facilities distorted the amount as well as cost of power: "In some States, the avoided cost pricing formulas forced utilities to pay for QF capacity that they did not need because the supply and demand balance for electricity was not considered in avoided cost." *Id.*

Another problem is that this pricing structure gives potential qualifying-facility producers every incentive to push this administrative process to produce an unrealistically high avoided cost, but then removes their incentive to be efficient. "[T]he price for wholesale electricity from QFs, still the vast majority of non-utilities, bears no relationship to the production costs of the selling company." *Id.* at 30.

556. See SOCAL COMMENTS, *supra* note 201, at 6. Of the \$3.5 billion that SoCal seeks to protect as 1998 transition costs, it attributes the largest amount, \$1.62 billion, to QF contracts. See *supra* note 259. SoCal has claimed that the CPUC's decision "to rush headlong into a program to support QF energy sources" will, by 2000, "have cost Edison electricity customers at least \$14 billion (in nominal terms) in increased rates." See SOCAL RESPONSE TO RULEMAKING NOTICE, *supra* note 239, at 8.

557. SOCAL COMMENTS, *supra* note 201, at II-3. In its transition cost policy report, SoCal claims that "California's active role in supporting the development of a QF industry led to the Commission mandating that utilities sign long-term (20- to 30-year) contracts with QFs." SoCal Transition Costs Arising From QF Obligations, SCE-4, Executive Summary at 2 (Oct. 1996).

558. See PG&E COMPETITION TRANSITION CHARGE, *supra* note 252, at Ex-3.

559. See EEI COMMENTS, *supra* note 23, at 20.

560. See RDI REPORT, *supra* note 24, Key Findings. Worse, one of the studies' "key finding[s]" was that "over 60% of the contracts do not expire until after the year 2010." *Id.*; Media Release, at 2.

561. See EEI COMMENTS, *supra* note 23, at 19 (In the Institute's phrasing, these costs arose because "states often required utilities to purchase power at rates far in excess of actual avoided costs or when additional generation resources were simply not needed.").

562. *But see infra* note 578 and accompanying text. Congress made another unusually bad decision in the Powerplant and Industrial Fuel Use Act, which tried to protect what seemed to be dwindling natural gas resources. The Act for a time forbade utilities from building new gas-fired power plants. This was an unfortunate interference, coming at a time when many state commissions were urging nuclear-plant investment. It has turned out that nuclear power is far

Another large group of costs are "regulatory assets," which can include everything from storm property losses to deferred fuel charges. The EEI's figure for these costs is at least \$75 billion.⁵⁶³ Although companies have every incentive to inflate their regulatory-asset account with ordinary business expenses,⁵⁶⁴ some of these costs are deferred costs whose recovery has been guaranteed by commissions. Any demand-side management expenses may fall into this category.⁵⁶⁵

It is not possible to know how far utilities really should be held responsible for their stranded costs because FERC and the CPUC have so carefully failed to develop the record needed to make this determination. But here as elsewhere, it is unwise to take the regulatory victim argument at full face value. The CPUC, for instance, did push California's utilities toward qualifying-facility purchases, helping to make sure that the major companies bought a lot of their power from QFs.⁵⁶⁶ These contracts are the largest single source of stranded costs in California.⁵⁶⁷ But the CPUC should have established how far California utilities opposed, and how far they advocated, or even championed, their QF contracts. It turns out, for example, that half of SoCal's QF purchases were made from Mission Energy, a wholly owned affiliate.⁵⁶⁸

DSM costs are a major part of regulatory costs. Though utilities

and away our most expensive power source, even without adding the cost for the still-unsolved waste disposal and storage problems; gas-fired plants are the cheapest form of generation.

563. See EEI COMMENTS, *supra* note 23, at 23. For the Institute's listing of the categories that fit into this group, see *id.* at 24-25. In its 1997 stranded-cost report, RDI came up with \$49 billion. See RDI REPORT, *supra* note 24, Key Findings.

564. All one need do is look through EEI's list of regulatory assets to realize how difficult it will be to figure out which of these costs truly were "stranded" by regulation. The organization lists "Extraordinary Property Losses," "Unrecovered Plant and Regulatory Study Costs," "Deferred SFAS No. 19 Costs," "DOE Decommissioning Assessment," "Deferred Fuel Costs," "Deferred DSM Costs," "Deferred Pension, Other Post Employee Benefits (OPEBs) and Early Retirement Costs," "Environmental and Storm Damage Costs," "Deferred Contract Buyout Costs," "Phase-in, Synchronization and Other," "Deferred Losses from Disposition of Utility Plant," "Research, Development and Demonstration Expenditures," "Unamortized Loss on Re-acquired Debt," and "Unrecovered Purchase Gas Costs." See *id.* at 24-25. Readers will quickly get the strong impression that this is not the end of the list.

565. See *id.* at 22. The EEI estimates that utilities "have spent an estimated \$12 billion in DSM programs alone from 1985 to 1993." *Id.*

566. In 1991, SoCal Edison bought 32% of its power from QFs, PG&E 25%. See YELLOW REPORT, *supra* note 14, at 80.

567. See SOCAL TRANSITION COST POLICY, *supra* note 257 (discussing QF stranded costs). Fully \$1.62 billion of SoCal's \$3.5 billion in 1998 stranded costs came from QF contracts. See *id.*

568. See YELLOW REPORT, *supra* note 14, at 80. This problem of responsibility is not limited to cases where QF purchases went to the utility's affiliate; cf. ROSE, *supra* note 3, at 57 (suggesting that compensation "limited to the part of the agreement that was beyond the control of the utility" should not include "those parts that were not mandated by the commissions and were utility controllable, such as fuel escalation clauses not based on an actual index of fuel prices or the failure to include termination terms in the contract").

portray all of these costs as imposed by regulators, Bernard Black and Richard Pierce have argued that many utilities exploited demand management programs once they realized that these programs offered a way to inflate their rate base.⁵⁶⁹ The programs expanded through an unholy alliance of utility executives, who of course wanted higher returns, and environmentalists, who were willing to support the utilities if they saw new incentives for conservation.⁵⁷⁰ PUCs went along because they could please two powerful constituencies who rarely agreed about anything.⁵⁷¹ It is not at all clear that the bulk of these costs were prudently incurred, or why they should be passed on in full to customers.

Agency involvement in utility planning, including approval of new facilities, does not mean that agencies were pulling reluctant electric companies into investments they really did not want to make. When California created a new agency for licensing large plants, for instance, the review "significantly reduced utility plans for new generating facilities."⁵⁷² Contrary to the common utility portrayal of the company as a victim deserving entitlement, the CPUC's involvement may have prevented even greater stranded costs.

Consider SoCal's attempt to shift blame for its nuclear facilities to the CPUC in one of its transition cost filings. SoCal stated that it had "no viable alternative to additional nuclear generation" when it planned two of its SONGS units.⁵⁷³ Moreover, SoCal complained about facing a court injunction against expanding certain oil-and-gas plants, "increasing concern for Los Angeles Basin air quality," and dwindling gas supplies.⁵⁷⁴ Against this background, the CPUC "approved Edison's application for a Certificate of Public Convenience and Necessity."⁵⁷⁵ As for SoCal's Palo Verde plant, here the investment was made "with the knowledge of [the CPUC] and the California Energy Commission."⁵⁷⁶ Moreover, there was a "lengthy record of consultation between Edison and the Commission" on both projects, and Commission reviews "culminated in the authorization of SONGS 2 & 3 and Palo Verde."⁵⁷⁷

What record is there that "approval," a "lengthy record of consultation," investment "with the knowledge" of the CPUC, and authoriza-

569. See Black & Pierce, *supra* note 175, at 1357.

570. See *id.* (discussing compromise between utilities and environmental groups).

571. See *id.*

572. YELLOW REPORT, *supra* note 14, at 35.

573. See SoCal Transition Costs for Nuclear Generation, SCE-5, at 5 (Oct. 1996).

574. See *id.*

575. *Id.*

576. *Id.* at 5-6.

577. *Id.* at 6.

tion, constituted a promise to insure the risk of these extraordinarily expensive plants? Where is the showing that SoCal was resisting, rather than urging, these investments? Who conducted the major planning and project justifications, SoCal or the CPUC? These are the kind of questions that an even-handed investigation into cost responsibility would have to ask and answer.

The imbalance of resources between electric companies on the one hand, and commissions on the other, makes it unfair to pretend that it was the agencies that were doing the planning all along, with the companies only serving to carry out plans imposed by the state.⁵⁷⁸ A proper stranded cost review would look to see whether utilities opposed, or instead fought for and urged, the categories of cost that they now claim were purely regulatory in origin.

In this age of deregulation, it is particularly important for agencies to make sure that markets function competitively.⁵⁷⁹ Just as it is important to understand where agencies should not interfere, so it is important to understand the places where they are effective and, indeed, where more controls may be needed.

Agencies have to fight for legitimacy by making the fairness of their orders transparent to the larger society upon which their mandates will fall. Agencies squander legitimacy when, like FERC and the CPUC, they protect utilities from paying any stranded costs in spite of the companies' leading role in incurring those costs.

578. Similarly to electricity costs, which are not solely the result of regulatory interference, natural gas losses were not without their regulatory roots. The NRRI, for instance, in an admittedly extreme reading of the history, thinks that the natural gas industry was more, not less, pressured, and pipeline decisions more, not less, distorted, by regulators. It argues that "[i]n the recent history of the electric industry there have not been any 'berating' of electric utility management to sign wholesale power contracts." See NRRI COMMENTS, *supra* note 510, at 6. The Commission, perhaps puzzled by this reading, gave it a footnote all its own in Order No. 888. See Order No. 888, 61 Fed. Reg. at 21,629 n.570 ("According to NRRI, the Commission did not 'berate' electric utility management to sign uneconomic contracts in the manner that NRRI contends the Commission and Congress 'berated' pipeline management.").

Though FERC has not developed a record that permits a fair comparison of the extent that regulatory pressure distorted decisions in the two industries, and though this factor will vary by company and with state regulators too, it seems difficult not to begin with a presumption that electric companies were under more pressure when one considers nuclear plants, PURPA's qualifying facilities, and the variety of state integrated resource plans and demand management programs, as well as the environmental and social goals that have been imposed on electric companies from time to time. The most plausible starting hypothesis is that the electric industry has suffered a greater degree of government involvement in its decisions than pipelines did in the natural gas business.

The lack of a record showing why current plant costs are inefficient and the role played by discrimination has deprived the industry and society of the findings needed for a more rational comparison of these industries' costs.

579. For some ideas on what this kind of regulation may require in the natural gas industry, see John Burritt McArthur, *Antitrust in the New [De]Regulated Natural Gas Industry*, 18 ENERGY L.J. 1 (1997).

C. *FERC's and California's One-Sided Mechanisms Suggest Problems of Capture*

The one-sided nature of FERC's and the CPUC's stranded cost treatment again raises the old regulatory concern with capture. It has long been a postulate of political science that focused, concentrated interests are better equipped to influence their political environment than diffuse consumer interests.⁵⁸⁰ In the regulatory arena, capture theory predicts that regulated companies will have the resources and ability to dominate their agencies, and that consumer interests will not organize as effectively. This postulate emerged as it became apparent that the early regulatory state was not controlling companies as vigorously as expected.⁵⁸¹ The theory gained a second life when it was adopted by economists in the Seventies and Eighties.⁵⁸²

From its title, "capture" theory sounds like a theory of bribery, but the theory is far more sophisticated. Having larger, concentrated interests may of course give regulated companies more resources to pay bribes, but no one has shown that overt corruption is a major factor in American administrative performance.⁵⁸³ Instead, on one level, capture can occur because concentrated interests are better able to mobilize and present their views to government bodies.⁵⁸⁴ It takes

580. See generally ANTHONY DOWNS, *AN ECONOMIC THEORY OF DEMOCRACY* (1957) (presenting economic model for competition within political system); WILLIAM NISKANEN, *BUREAUCRACY AND REPRESENTATIVE GOVERNMENT* (1971); see also *infra* note 582.

581. See, e.g., EDELMAN, *supra* note 308, at 24 nn.1-5 (citing five major post-War studies of administrative behavior that support an "instrumental" theory of agencies "as economic and political instruments of the parties they regulate and benefit, not of a refined 'society,' 'general will,' or 'public interest'"). Edelman claims that this instrumental function "has been observed, demonstrated, and documented by every careful observer of regulatory agencies." *Id.* at 56.

582. See generally Gary Becker, *A Theory of Competition Among Pressure Groups for Political Influence*, 98 Q. J. ECON. 371 (1983) (presenting a theory of competition among pressure groups for political influence); Sam Peltzman, *Toward a More General Theory of Regulation*, 19 J. LAW & ECON. 211 (1976) (presenting model for theory of regulation derived from a "generalization of Stigler's model"); Peltzman, *supra* note 64; George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3 (1971) (analyzing the potential uses of public resources to provide a "scheme of the demand for regulation" and addressing characteristics of the political process to provide "elements of a theory of supply of regulation").

583. Cf. Richard Posner, *Theories of Economic Regulation*, 5 BELL J. ECON. & MGMT. SCI. 335, 337 (1974) (arguing that evidence showing regulatory problems caused by agency mismanagement is "weak").

584. See, e.g., Stigler, *supra* note 582, at 10-13. Stigler takes two conditions, that politics requires simultaneous decisions by large numbers of people and the fact that on any given issue, many people will be unaffected, and derives a model in which those with strong preferences and resources will organize to maximize favorable political outcomes. "This does not mean that every large industry can get what it wants or all that it wants; it does mean that the representative and his party must find a coalition of voter interests more durable than the anti-industry side of every industry policy proposal." *Id.* at 11. The result is that strongly felt majority and minority views tend to prevail, while weak preferences end up disregarded. See *id.* at 12 (discussing the channels of decisionmaking in the industry); cf. Peltzman, *supra* note 582, at

money to lobby Congress, money to mobilize "grass roots" movements, money to write briefs, and money to keep up with agency decisions. A more insidious pressure arises from the frequent interaction between regulated companies and regulators. The resulting ties make it easier for the companies to persuade the agency of their views.⁵⁸⁵ The fact that the companies are natural sources of employment for retiring administrators, and the likely source of new commissioners, still further raises the odds that administrators will share the assumptions and perspectives of those they are supposed to police.⁵⁸⁶

The extreme favoritism that Order No. 888 and the CPUC's deregulation display to electric companies, at the expense of consumer interests and the advent of true competition, suggests that both FERC and the CPUC shared the utilities' perspective on stranded costs. No one can conclusively demonstrate that the agencies were "captured" by the outcome of the orders, when all we have are their explanations dressed up in the garb of regulatory prose.⁵⁸⁷ General statements about public interest and efficiency are too vague to decide issues like stranded cost recovery (or to reveal an agency's true motives), but several factors suggest that the interests of electric companies have controlled the stranded-cost agenda.

240 (modifying and extending Stigler's model by making room for an interaction between producer and consumer interests, as well as changes in outcome as the gains to consumers grow). By reducing capture to success in a competition before regulators, the theory perpetuates the innocence with which most of neoclassical economics is permeated. (Regulated companies may dominate their agencies, but it is only because they have better tools to play within the rules of the game, not because they are corrupting the agencies.)

585. This bias is the natural consequence of what Murray Edelman, talking about interactions among staff members rather than between them and the regulated, calls "value contagion." EDELMAN, *supra* note 308, at 53. The tendency of people who work together, attend the same conferences, read the same trade journals, and worry about the same issues to share certain general assumptions that set them off from society at large is not limited to staff within agencies. *See id.* (concluding that the phenomenon of group conformity has been established in research studies and "is observable in the agencies themselves as well by every employee or observer sensitive to it").

586. *Id.*

A certain number of staff members [and Commissioners] of every agency can expect to end their careers as employees or officers of the firms they are regulating, and the possibility occurs to every staff member [and Commissioner]. . . . Such an expectation is of course wholly compatible with the role-taking we are discussing, and inevitably reinforces it.

Id.

587. One study has characterized results in which utilities or rate payers pay nothing as a "winner-take-all" outcome. *See* BAXTER ET AL., *supra* note 23, at 57 (identifying and examining strategies that regulators and utilities may use to address transition costs). Such approaches occur because, "[l]eft to their own devices, most financial stakeholders will pursue their self-interests." *See id.* This "logjam" can be broken with a promise that "no party will bear all costs, that costs will be allocated across financial stakeholders." *See id.* Unfortunately, neither deregulation discussed here adopted such a remedy.

First, electric companies brought vastly greater resources to bear on the commissions than anyone else. Utilities filed the bulk of the comments before FERC and the CPUC, as one would expect from the prediction that a "concentrated" interest will intervene with more weight than a diffuse interest. Some companies filed several hundred pages of comments, supplements, and requests for rehearing and clarification, with voluminous expert reports attached. The prize among those seeking stranded-cost protection almost certainly goes to EEI, the utilities' primary trade association. EEI purportedly planned to raise \$3 million for lobbying on electricity restructuring in 1996 and 1997.⁵⁸⁸ Its main brief, which listed eight authors, ran to 105 pages of comments, but that was only the start.⁵⁸⁹ Attached was a 51-one-page report by three economists, a second 41-page expert report, and its latest annual report on the industry.⁵⁹⁰

Of perhaps more importance is the level of detail at which a party can address regulatory issues. It takes a lot of money to prepare a well-phrased brief on the many issues and claims that surround electricity deregulation, to say nothing of the supplemental briefs as new problems and questions arise. Perhaps the most ostentatious is EEI's economic report because it was prepared by three of the major figures in American economics: William Baumol, Paul Joskow, and Alfred Kahn.⁵⁹¹ Baumol is the father of contestable market theory, which provides the theoretical underpinning for much of the deregulation in both antitrust and administrative law;⁵⁹² Joskow has been a well-known author on electricity for over three decades;⁵⁹³ and Kahn

588. See CRANDALL & ELLIG, *supra* note 3, at 63. EEI may have spent even more, although its lobbying naturally is not limited to stranded cost issues. In 1997, EEI seems to have spent \$5,000,000 on lobbying in just six months. See *Lobbyists Spend \$100 Million a Month*, S.F. CHRON., Mar. 7, 1998, at A4 (reporting data compiled by Associated Press).

589. See generally EEI COMMENTS, *supra* note 23.

590. See *id.*

591. See EEI ECONOMISTS' REPORT, *supra* note 36.

592. Each of EEI's economists is so well known that, rather than listing their individual publications, as is commonly done in expert reports, the Report merely cites the volume of their work. It credits Baumol with 30 books and 400 articles as well as "a number of professional awards and honors"; Joskow with two books and 80 "articles, notes, and comments"; and Kahn with several books, "hundreds of articles," and "numerous professional awards and honors." EEI ECONOMISTS' REPORT, *supra* note 36. Unspoken is the fact that some of these books and articles are among the most influential in American economics. Baumol's best work may be his writings on contestable market theory. See Elizabeth Bailey & William Baumol, *Deregulation and the Theory of Contestable Markets*, 1 YALE J. REG. 111, 111 (1984) (presenting "basic contestability theory" and reviewing "major regulatory reform activities"); WILLIAM BAUMOL ET AL., *CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE* (1982); William Baumol, *Contestbl. Markets: An Uprising in the Theory of Industrial Structure*, 72 AM. ECON. REV. 1 (1982). And Alfred Kahn was one of the primary administrative figures in deregulation when, as President Carter's Chairman of the Civil Aeronautics Board, he did so much to deregulate the airline industry.

593. See generally JOSKOW & SCHMALENSEE, *supra* note 175.

is the former market crusader who chaired the Civil Aeronautics Board and author of *The Economics of Regulation*.⁵⁹⁴ EEI made sure that the Commission would listen by having one of these well-known economists in its camp. To have all three is a potent display of the group's clout. No consumer group was able to pay for even one figure of comparable stature.⁵⁹⁵

Second, the domination of the debate by utilities shows up in FERC's failure (one that beset the CPUC as well) to estimate the scope of utility errors and discrimination, to penalize such failings in the recovery mechanism, or to even make findings on the size of stranded costs. These most obvious factors, which should have provided a counterweight to arguments over regulatory compacts and reliance, simply disappeared from the analysis. Yet if FERC and the CPUC are right to proceed with deregulation, utilities cannot be entirely blame-free for the problem that has befallen their industry.

There never will be a conclusive proof about capture theory. Even if the theory correctly identifies some factors acting upon agencies, there is no reason to expect that it identifies all relevant factors and explains every decision.⁵⁹⁶ Moreover, the theory is very hard to apply because interests change when markets change. It is always possible to claim that companies that do well under changed circumstances had the most compact interests before the changes occurred. Even in a static analysis, there is great temptation to define the party that prevailed as the one that just must have had the more organized interests. In economists' terms, the "ex post" victors may be rewriting

594. ALFRED KAHN, *THE ECONOMICS OF REGULATION: PRINCIPLES AND INSTITUTIONS* (1970).

595. The imbalance in the number and quality of the comments is so great that it suggests several measures that might produce a fairer context for decisions. First, just as it is fair game for a jury to consider how much an expert was paid to give an opinion, so administrators would benefit from knowing how much experts were paid for their supposedly independent attachments and reports. Second, to truly balance information, agencies could require utilities to prepare a budget estimate or cost ceiling for their participation in a given rulemaking proceeding, file this report when a NOPR first is issued, and then make the company provide selected consumer groups the same budgets. Although utilities would object that they should not have to fund their opposition, these would be pass-through expenses; in essence, the question is whether regulatory outcomes would be improved if consuming interests (ratepayers) funded an organization that represented them directly, at least to the same extent as they fund the companies whose power needs to be contained.

596. See generally DERTHICK & QUICK, *supra* note 64 (providing sophisticated argument that deregulation, including natural gas deregulation, cannot be explained by special interest capture, agency power maximization, or purely by reformers' ideas, but attributing high portion of explanatory power to ideas). Derthick and Quirk chart a three-stage evolution of deregulation from a policy literature about reducing costs, to political advocacy by leaders including Presidents Carter and Ford, and, finally, to "a preferred style of policy choice in the nation's capital, espoused more or less automatically, even unthinkingly, by a wide range of officeholders and their critics and used by them as a guide to position taking." See *id.* at 35. In other words, this process cannot be understood unless one looks at it as a change in ideology.

the perceived "ex ante" balance of power. Nonetheless, capture theory does point to an imbalance in the *process* of decision that may explain the highly skewed results on stranded costs.⁵⁹⁷

The postulate of capture serves as a reminder that utility commissions may not be the best bodies to handle deregulation, or at least, not its stranded-cost aspects. The question of regulatory blame is central to deregulation because it is the flipside to company mistakes. It is no accident that electric companies have used the "regulatory compact" defense to make distortions by regulators the centerpiece of their claim for government entitlement. This has turned out to be a deft choice because it has helped push the discussion away from responsibility for hundreds of billions of dollars in miscalculations. It is no surprise that commissions have been so squeamish about looking at the question of blame very closely. The utilities are indeed right that any fair history of the last few decades of electricity investment has to focus heavily on ill-advised commissioner interventions.

One can see the problem easily by looking at California. The CPUC's forceful role has cast it as the champion of the market, a pioneer of better forms of power supply. The CPUC had found that California's prices were roughly 50% above the national average.⁵⁹⁸ Nationally, California's prices are two to three times those in the lowest-cost service areas.⁵⁹⁹ Anyone who starts asking how this can be inevitably will be drawn into the Commission's past performance, just as surely as they ought to be drawn to study the past performance of PG&E, SoCal, and SDG&E. Yet California's restructuring has diverted attention from the important question of why its electricity is so expensive in the first place, shifting interest instead to the supposed benefits of the coming competition. The CPUC has put its mistakes, and those of the companies it regulates, off limits. It hardly could have taken a more inconsistent position. On the one hand, the CPUC has announced that regulation served the state well in the past⁶⁰⁰ (in spite of the fact that SoCal, PG&E, and SDG&E have costs

597. One sign that capture theory is not a full explanation is that it does not explain why FERC has pressed deregulation so aggressively in both the natural gas and electricity industries.

598. See CPUC DEREGULATION ORDER, *supra* note 27, at 192 (discussing Finding of Fact No. 22).

599. See *supra* note 53 and accompanying text (discussing how average utility costs vary across the country).

600. The deregulation order repeated the CPUC's earlier assertion that the old form of regulation, "cost-of-service regulation[,] has served our regulatory objectives reasonably well in past years," but that "it is no longer compatible with the changing electric industry and is in need of reform," implying that the last few decades of regulated service had not really produced major problems. See CPUC DEREGULATION ORDER, *supra* note 27, at 82. This myopic obscurantism is at odds with the predicament of California's power suppliers today, as well as the Commission's proper dissatisfaction with the high cost of power from existing plants and

at least 50% over the national average). On the other hand, the CPUC is forcing these companies to divest many assets and move into a competitive market because only this supposedly will provide an acceptable level of performance in the future.⁶⁰¹

Consider the claims that should be raised in a hearing over the CPUC's role in California's electricity prices. As the Commission noted, "many" commenters believed

[that] contracts utilities signed with qualifying facilities over the past decade as part of this Commission's competitive procurement program are uneconomic; that the costs related to all forms of regulation in California are higher than in other states; and that legislative and Commission mandates are more extensive and costly than those imposed on utilities in other states.⁶⁰²

A fair analysis of these claims cannot be made without an intensive scrutiny of the Commission's past performance. The inquiry should be much more far-reaching than the kind of questions that arise when an electric company or pipeline claims commission approval for a single asset. It would be hard for administrators who had been part of the old rate process to conduct the inquiry into their own past practices fairly and openly. Judging from the content of the CPUC's deregulation, some agencies have found it impossible to devise a fair mechanism to impose responsibility for the errors and mistakes that occurred on their watch.

The CPUC made some bad mistakes, but so did its jurisdictional companies. Unfortunately, the agency has compounded its errors by devising a system that enables utilities to avoid paying for their share of the mistakes. As the conflict of interest sketched above suggests, states will be well-advised to appoint special bodies to decide stranded costs. The members should have accounting and energy backgrounds, but not have been decisionmakers over the costs in dispute. We would not want a board of electric company directors deciding whether they should recover their own stranded costs. No more should we want a commission deciding the extent to which its past conduct is to blame for these costs.

Whatever the cause, one of the functions of FERC's and the CPUC's stranded-cost decisions is to avoid any inquiry into commission failures. Unfortunately, the price for that shield seems to be avoidance of inquiries into failures by electric companies as well. The desire to avoid such an analysis may explain the imbalance in

supply contracts.

601. See *supra* notes 207, 267 and accompanying text.

602. CPUC NOPR, *supra* note 203, at 35 n.30.

both agencies' orders, which rely on company mistakes in justifying deregulation but ignore the same conduct when it comes time to decide who will pay the cost of transition.

Just who has controlled an administrative outcome sometimes can be seen in the terms adopted to frame the debate. The choice of concepts and slogans is significant. In the battle of symbolic values that sets the stage for political contests, the choice of labels, and their ability to clarify or to conceal, can determine the outcome.⁶⁰³ When one confronts an outcome as one-sided as the stranded-cost decisions discussed in this Article, one prudent reaction is to pay more attention to the phrasing of the debate. Did the symbolic dispute match what was really at stake?

In this regard, the labels "stranded" and "transition" are far more likely to obscure than clarify. "Stranded" implies costs spawned by a force beyond anyone's control. Getting "stranded" is what happens to storm victims.⁶⁰⁴ "Transition" is hardly any better. "Transition costs" sound like costs necessitated by the shift to deregulation—by the process of changing, by the cure and not the disease.⁶⁰⁵ Both terms obscure the fact that these costs are the costs of electric company investments that have failed in the marketplace. Whatever else they are, stranded costs also are "investment failures," "economic

603. As Douglas Jones of the NRRI said when he was looking into the origins of the idea of the "social contract" in regulation, "proponents and opponents of any idea, of course, can choose their terms of characterization, [but] clarity of thought about the matter is generally aided if those terms carry with them neither a halo nor excess baggage." See JONES, *supra* note 378, at 12. Years before "stranded costs" had become electricity's buzzword, Jones observed that the slogan "stranded plant" can prevent the possibility of "objective discussion." See *id.* at 13 (describing the relevance of selecting terms and the accompanying connotation that attaches to slogans during policy debate). "[W]ords matter, and public policymaking is best done with as neutral a description of an issue as possible." See *id.* Fairness in terminology has been unfortunately lacking in the "stranded cost," "transition cost" debates. See generally Murray Edelman, *The Creation of Political Beliefs Through Categorization*, (INSTITUTE FOR RESEARCH ON POVERTY, Disc. Paper No. 258-75 (1975)) (arguing that "linguistic categorizations influence public opinion and perception during the policy making process").

604. The New Shorter Oxford English Dictionary defines "stranded" as something that "has been driven or washed ashore; that has run or been left aground," as well as something "[a]bandoned in an isolated or inaccessible position . . . esp. by the withdrawal or failure of a means of access or transport." THE NEW SHORTER OXFORD ENGLISH DICTIONARY 3083 (1993). While the term is not automatically wrong for electricity—it can incorporate stranding by the victim's own mistake—there is an unmistakable feeling of outside forces, like a storm or rough sea or failure of expected suppliers, causing the victim's predicament.

This terminological problem illustrates the distortion that has dogged this debate, for whatever reason, and shifted its concerns from the true causes of uneconomic costs. It is a bit of an understatement to say that terms like stranded cost "are not in the lexicon of any other sector of the American economy." IPALCO ENTERPRISES, *supra* note 280, at 15.

605. The first definition of "transition" is an "action or process of passing or passage from one condition, action, or . . . place to another." THE NEW SHORTER OXFORD ENGLISH DICTIONARY, *supra* note 604, at 3370. Convert this noun into an adjective, and you have a cost that came about because of the transition process, rather than the underlying inefficiency that necessitated the transition.

miscalculations," "white elephants," "Edsels," and any other term that connotes managerial error. The requests for relief by large companies and their wealthy shareholders are requests for "subsidies," "entitlements," "welfare," and a "regressive tax" by some of the countries' wealthiest corporate and individual citizens.

The choice of obscuring language may be fitting, because it so matches the administrative failure to address the ways that electric companies are responsible for their poor performance, but it is a poor choice of words for those who care about the real interests in dispute.

FERC's and California's failure to develop and explain a proper basis for stranded-cost recovery sheds a new, harsh light on the natural gas restructuring orders. One thing that has become clear about those orders is the inadequacy of FERC's explanation for Order No. 500's equitable sharing formula. Though the Commission found that "no one segment of the natural gas industry or particular circumstance appears wholly responsible" and that "all segments should shoulder some of the burden of resolving the problem,"⁶⁰⁶ the Commission never identified the responsibility of any of the parties. It failed to isolate the share of uneconomic gas costs that should be traced to pipelines.⁶⁰⁷ It did not even discuss how to determine that responsibility. Nor did the Commission discuss the extent to which the regulatory fabric should be blamed and how the Commission would weigh that against pipeline errors.⁶⁰⁸

The allocation of responsibility that actually developed as pipelines applied Order No. 500 was just as unreasoned. Though producers may be least responsible for pipeline errors,⁶⁰⁹ producers bore the brunt of stranded gas costs. Yet because FERC had pushed take-or-pay contracts aside as private contract disputes,⁶¹⁰ the Commission escaped explaining why producers should have absorbed over four-fifths (or any) of the settlement costs. Moreover, the undeveloped reasoning in Order No. 500 extends to the remaining liabilities div-

606. Order No. 500, 52 Fed. Reg. at 30,337.

607. *See id.* at 30,336-39.

608. *See generally id.* at 30,334.

609. Many producers relied heavily on pipeline commitments in their drilling programs. Take-or-pay contracts were a mechanism for "pipelines and their customers to compensate the producer in part for the risks the producer incurs in making substantial investments in order to meet the supply needs of these pipelines and their customers." Order No. 528-A, 54 Fed. Reg. at 52,334, 52,349; *see also* American Gas Ass'n v. FERC, 912 F.2d 1496, 1508 (D.C. Cir. 1990) (discussing and deferring to Commission's view of these contracts as giving producers "some minimum level of revenue to cover operating expenses and debt").

610. *See American Gas Ass'n*, 912 F.2d at 1504-08 (discussing reasons FERC properly rejected demands that it intervene in take-or-pay contract disputes).

vied up between pipelines and their customers. FERC designed the allocation of residual responsibility to make pipelines bear 25% to 50% of these remaining take-or-pay costs.⁶¹¹ The burden seems to have ended up with pipelines absorbing just under 40% of these costs, their customers 40% under a fixed charge, and the rest being at risk in a volumetric rate.⁶¹² These percentages lack any obvious link to decisions pipelines made or failed to make.

It hardly bears adding that if Order No. 500, the only order with express recovery language, is poorly elaborated, the combination of Order Nos. 380 and 436 (and Order No. 636 with its departure from Order No. 500) is no better. The Commission did not explain why pipelines should pay only some take-or-pay transition costs, rather than all other losses from voided minimum bills and forced open access. Nor has it yet come up with a sensible explanation for why Order No. 636's transition costs should get the opposite treatment from Order No. 500's.

In short, the gas restructuring orders lack the factual and theoretical basis for anyone, be it a reviewing court, parties in the industry, or the Commission in 1996, to fix the precise responsibility for stranded costs in electricity. This does not mean that Order 500 was wrong. The solution may have worked, and it certainly was fair in making pipelines bear a lot of their losses. The acknowledgment that pipelines should bear significant costs tracks the critical understanding of deregulation that pipelines were making inefficient decisions.

It does not make much difference what the Commission says if one believes that administrative agencies only serve as masks to disguise and legitimate the division of spoils among interest groups. For those who believe that agencies serve to "create and sustain an impression that induces acquiescence of the public in the face of private tactics that might otherwise be expected to produce resentment, protest, and resistance,"⁶¹³ the lack of foundation for allocating costs in natural gas deregulation is no surprise. This is business as usual. Yet interest group politics are hard to square with a lot of administrative behavior, including the eagerness with which agencies like FERC have embraced deregulation and reduced their own power and jurisdiction. For those who believe that principles do matter, and that statutory purposes should make some outcomes off-limits and guide

611. See Order No. 500, 52 Fed. Reg. at 30,343.

612. See, e.g., NRRI COMMENTS, *supra* note 510, at 9 (using Order No. 500-H numbers to show that pipeline customers bore 60.7% of unsettled take-or-pay costs, while pipelines absorbed just under 40%). When this is added to the uncompensated losses from Order Nos. 380 and 436, pipelines clearly bore a great share of the restructuring.

613. EDELMAN, *supra* note 308, at 56.

choices in other areas, the lack of a clear theory guiding stranded natural gas costs is a conspicuous failure.

All it takes to see the cost of the Commission's natural-gas failure is to look at electricity. Had FERC used its Order Nos. 380-636 sequence to analyze what really went wrong and developed the principles upon which the Commission allocated the resulting burden, all parties in the electricity industry would know where to begin dealing with that industry's stranded costs. Instead, the Commission's compliant shift to a new set of principles (reliance, financial integrity and cost causation) in electricity, like choosing a new dish in the cafeteria line, underscores its failure to define an appropriate set of guidelines in the first major energy deregulation.

D. *Enforcing Cost Responsibility*

Left for last is the future. Order No. 888 and California's deregulation have progressed through years of hearings and debate and are not going to be changed. Their failure to ground stranded-cost recovery on cost responsibility, the principle that FERC defined as the proper principle in natural gas deregulation, is not going to be reversed. But there is a great deal of room for courts and other states, as well as the Commission and the CPUC, to improve matters.

Reviewing courts will have to decide whether the Commission has found an adequate reason for deviating from its natural-gas precedent. Another way to phrase the problem is whether a rate mechanism that ignores cost responsibility but is part of a rule designed to remedy great cost overruns can produce "just and reasonable" rates. Ironically, because the Federal Power Act's mandates are so broad, as are FERC's for natural gas, this issue may end up being defined by the latitude left to agencies to reach conflicting results that still fall within their discretion.

FERC's failure to address *how* it arrived at its various remedies in natural gas is regrettable when seen in light of the questions now open in electricity. Though FERC did not explain why utility responsibility was the principle guiding natural-gas cost recovery, it made clear that the 100% recovery in Order No. 888 is contrary to the heavy burdens the Commission imposed on natural gas pipelines.⁶¹⁴

614. See Hollis & Ralls, *supra* note 2, at 16:

Arguably, the Commission is making the same mistake now [as in ignoring take-or-pay costs in natural gas], but in the opposite direction. Instead of burdening utilities alone with the full costs of restructuring the industry, it is burdening consumers with these full costs. Second, in the natural gas context, as upheld in *AGA*, the Commission itself was vigilant in ensuring that pipelines did not attempt to insulate themselves from competitive forces by imposing fees or charges on exiting customers that would

At least on the surface, the effect of full electricity pass-through would seem to be just as anticompetitive, just as necessary to avoid, and just as much of a blockage of the goals of deregulation in the electric industry as it would have been in natural gas.

As FERC is not going to rewrite Order No. 888, it can at least hold utilities to the burden of proving true prudence for those stranded costs that have not yet been "recovered," and make sure that its mitigation standard is more than just words. In addition, it can interpret the reasonable-expectations test restrictively by taking seriously the cost justification for deregulation. Many of the largest electric plants were built as if utilities were free to make the largest possible investments without any need to hedge, limit, share, or otherwise cushion the risk that their massive investments might rest on the wrong technology. The long term needed to pay out these costs itself increased the risk that unexpected changes in technology would push customers to bypass the chosen technology. Such an increase in market-driven economic change should reduce reliance under any test of reasonable expectations.

Mitigation is another area where FERC and the CPUC can impose some discipline. Mitigation should include efforts to lower costs at uneconomic plants, careful analysis concerning which plants should be closed rather than operated, and efforts to renegotiate overpriced power supply contracts. But none of these steps, welcome though they would be, can erase FERC's failure to apply the right principle to stranded costs in the first place.

The CPUC can exercise its oversight to make sure that the state's utilities auction plants to get the best price, sell assets that can be better operated by third parties, and shut down plants whose power costs more than the marginal cost of generating. Here too, however, there is no way to fully avoid the errors that are built into the recovery assurances of the existing mechanism.

Given their solicitude to utilities in crafting a stranded-cost remedy, there is not much hope that FERC or the CPUC will recover the values in administration that they discarded during drafting. Should Congress pass a retail bill, it should exercise great care to avoid repeating the Commission's mistake. If retail stranded costs are to be recovered, such recovery should extend only to the degree that these costs result from true regulatory compulsion and not from management mistakes. The states should be equally careful to reject the

have the effect of guaranteeing pipeline revenues. Ironically, the method for the recovery of stranded costs in the electric industry is precisely the approach condemned by the Commission for natural gas pipelines.

oversimplification of full recovery. They should base their rules on the responsibility that markets demand, even if amended for regulatory factors by allowing costs truly ordered by commissions to be recovered. Only in this way will the stranded-cost aspects of deregulation match the hopes and goals that have produced the movement.