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Regulated Deregulation: The New York Experience in Electric Utility Deregulation

Harry First*

I. INTRODUCTION

The conventional wisdom has long been that the regulation of electric utilities is a failed enterprise. Starting with a classic study that argued that electric utility regulation had no effect on rates¹ through the most recent critique by the Federal Energy Regulatory Commission,² one would be hard-pressed to find strong defenders of the traditional regulatory system (except, perhaps, for the state regulatory commissions themselves). Bringing competition to this industry, as we have brought competition to so many others in the past two decades, seems like obvious policy.

Facts, however, have a way of forcing theory to confront reality. Take, for example, June 26, 2000. On that day a price spike occurred in parts of New York State's day-ahead electric power market. For five consecutive hours (from 1:00 through 6:00 in the afternoon), Consolidated Edison paid more than \$1,000 per MWH for electricity.³

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^{1.} George J. Stigler & Claire Friedland, What Can Regulators Regulate? The Case of Electricity, 5 J.L. & ECON. 1 (1962).

^{2.} See Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities, Order No. 888, 75 F.E.R.C. ¶ 61,080, 1996 FERC LEXIS 777, at *17-*38 (1996). But cf. Paul L. Joskow, Deregulation and Regulatory Reform in the U.S. Electric Power Sector, in DEREGULATION OF NETWORK INDUSTRIES: WHAT'S NEXT? 119-20 (Sam Peltzman & Clifford Winston eds., 2000) (noting that despite hypothesized deficiencies in cost-plus regulation, electric power sector performed "fairly well" over time, with falling prices from 1900 to the 1970s; prices rose from the mid-1970s through the mid-1980s, but declined again during the 1990s).

^{3.} Motion to Intervene, Answer and Comments of Consolidated Edison Company of New York, Inc. and Orange & Rockland Utilities, Inc., Before the Federal Energy Regulatory Commission, Docket Nos. ER00-3591-000 and ER00-3591-001 (New York Independent System Operator), at 12 n.4 (Sept. 27, 2000), available at http://www.coned.com/PublicIssues/FERC-ER00-359/000.pdf.

That price spike resulted in a 30% increase in the average wholesale price of electricity for the month⁴ and is estimated to have increased the cost of electricity by more than \$100 million.⁵

It is difficult to be cavalier about \$100 million. Indeed, this price increase alone (and it is not the only one) should lead us to ask whether prices under deregulation might actually be higher than they were under regulation. If so, this might cast doubt on the validity of the economic theory underlying deregulation in this industry. It might even be that "free markets" are not the best policy prescription for this industry.

Before we can reach any conclusion on these ultimate questions, however, it is important to understand how we have done electricity deregulation so far. Experience may teach that we have failed in design, rather than concept; this may lead us to structure a more realistic design that can avoid the deficiencies of the traditional regulatory approach, even if it cannot completely embrace the purity of free markets.⁶

This paper will describe only a piece of the deregulatory experience so far—the efforts of New York State to deregulate its electric power markets. This description will show, I believe, that New York has not really deregulated electricity markets. What New York has done, instead, is to replace one regulatory system with another. The result is what I call "regulated deregulation." The new system is more sensitive to economic incentives than was the old, an important aspect of free markets, of course; but the new system is also very much under governmental control. In retrospect, to have thought that we would have done otherwise seems rather naïve.

II. THE NEW YORK EXPERIENCE

A. The Initial Steps

The New York Public Service Commission (PSC) has a long history of thoughtful efforts to use economic principles, and competition where possible, to improve regulatory results. Often led by distinguished

^{4.} Committee on Energy, Ass'n of the Bar of the City of New York, *Restructuring New York's Electric Power Industry: A Progress Report*, 56 THE RECORD 56, 68 (2001) [hereinafter 2001 City Bar Report].

^{5.} N.Y. Indep. Sys. Operator, Inc., Order Accepting Tariff Filing as Modified, 95 F.E.R.C. \P 61,471, 62,689, 2001 FERC LEXIS 1532, at *9 (2001) (estimate by New York Independent System Operator).

^{6.} See Darren Bush, Lessons from California: 10 Mistakes to Avoid in Deregulating an Energy Market (2001) (unpublished manuscript, on file with author) (discussing substantive mistakes in implementing deregulation).

economists (Alfred Kahn and Eli Noam, for example), it has frequently been at the forefront of regulatory reform.⁷

The Commission's efforts to deregulate the electric power industry were undertaken over a number of years, in a way that combined quasilegislative fact-finding, bargaining among interest groups, and adjudicatory decision-making. The efforts began in 1993 when the Commission initiated an inquiry into what it called "flexible pricing" in the electric and gas industries in New York. The inquiry recognized that some industrial and commercial customers in both industries were in a position to have competitive options in negotiating contracts with suppliers; the Commission accordingly adopted guidelines for the use of such contracts. In 1994 the PSC began Phase II of this proceeding. focusing on the electric power industry. The overall objective was "to identify regulatory and rate-making practices that will assist in the transition to a more competitive electric industry designed to increase efficiency in the provision of electricity while maintaining safety, environmental purity, affordability, and service quality goals."8 The parties were "urged to work collaboratively to identify a few comprehensive principles to guide the transition" to a more competitive industry structure.⁹ As a result of meetings held in September and October of 1994, an agreement was reached on a set of proposed principles covering eight areas, from competitive market issues to economic development.¹⁰ In June 1995, following further comment from more interested parties, the PSC issued nine principles "to guide the transition to competition."11

^{7.} See, e.g., Proceeding on Motion of the Commission to Investigate Performance-Based Incentive Regulatory Plans for New York Telephone Company—Track 2, Opinion No. 95-13, 1995 N.Y. PUC LEXIS 440 (N.Y. PSC 1995) (adopting plan that "substantially deregulates" telephone company earnings and adopting incentive-based regulation); Re Rate Design for Electric Corporations, Opinion No. 76-15, 15 Pub. Util. Rep. (PUR) 4th 434 (N.Y. PSC 1976) (adopting marginal cost pricing for electricity rate structures).

^{8.} Re Competitive Opportunities Available to Customers of Electric and Gas Service, 154 Pub. Util. Rep. (PUR) 4th 35 (N.Y. PSC 1994) (Order Instituting Phase II of Proceeding).

^{9.} *Id.* The Public Service Commission eventually grouped the parties that participated in shaping deregulation into the following "interest groups": industrial and large commercial consumers, residential and small commercial consumers, investor-owned utilities, labor unions, publicly-owned utilities, competitors (independent power producers and energy service companies), environmentalists, Department of Public Service staff, and other public agencies. *See* Re Competitive Opportunities Regarding Electric Service, Opinion No. 96-12, 168 Pub. Util. Rep. (PUR) 4th 515, 525 (N.Y. PSC 1996) [hereinafter Opinion 96-12]. The full list is set out in Appendix D to the Commission's Opinion.

^{10.} Re Competitive Opportunities Regarding Electric Service, 162 Pub. Util. Rep. (PUR) 4th 1, 1995 N.Y. PUC LEXIS 290, at *4 (N.Y. PSC 1995).

^{11.} Id. at *1. The principles are set out in Appendix C to the Commissioner's Opinion. See id. at *21-*23.

The first principle was that competition in the electric power industry "will further the economic and environmental well-being of New York State" and that "[t]he basic objective of moving to a more competitive structure is to satisfy consumers' interests at minimum resource cost." Further, "[p]rices should therefore accurately reflect resource costs, and consumers should have a reasonable opportunity to realize savings and other benefits from competition." The Commission also felt that "[w]ith more competition should come less regulation," although regulation was not completely eschewed ("[m]echanisms should exist to identify and correct anti-competitive behavior.") Critical to restructuring was the PSC's seventh principle. The current vertically integrated industry structure "must be thoroughly examined" to insure that it does not impede "effective wholesale or retail competition."

The Commission urged the parties to continue to work collaboratively, an approach that the Commission believed had "great potential to lead to innovative public policy solutions." Regular meetings were held (open to the public) between March and November 1995; even after a recommended decision was issued in December 1995 (by an administrative law judge and a PSC Deputy-Director), educational fora were held at ten locations around the state to give citizens an opportunity to present their views to the PSC staff. 17

The result of this effort was the Commission's Opinion 96-12, a more elaborated decision setting out the Commission's vision for the electric utility industry in New York. In this Opinion the Commission again addressed the "threshold question" of whether to "move toward competition in the first place." Answering its question, the Commission reiterated the traditional economic benefits of competition: "First, competition should result in lower bills as competitors have a greater incentive to lower costs than do utilities under a regulatory regime. This has generally been the experience of the electric industry abroad and other deregulated industries." Not only did the Commission expect that a competitive system would produce "lower electric prices in New York State overall than currently," 20 it also

^{12.} *Id.* at *7.

^{13.} *Id*.

^{14.} Id. at *11.

^{15.} Id. at *12.

^{16.} Id. at *15.

^{17.} Opinion 96-12, supra note 9, at 521-23 (detailing the procedural history).

^{18.} Id. at 530.

^{19.} *Id*.

^{20.} Id. at 529.

believed that competition would narrow the "large difference between New York's prices and the national average."²¹

A second benefit of a competitive system would be an increase in consumer choice. "Customers of all sizes have expressed a preference for allowing customer choice. This is particularly true for commercial and industrial customers, who maintain that the business climate in New York would likely improve if retail access were available for them at some definite time in the future."²² The Commission's expectation was that a variety of choices in the market would enable customers to "arrange their consumption to maximize their welfare and save costs."²³ Again, competition will lead to lower prices.²⁴

Although the Commission recognized the benefits of competition, it also recognized that competitive markets might not be possible in all circumstances. Specifically, the Commission recognized that there were more than thirty "load pockets" around the state in which transmission constraints limit the number of producers that are able to provide electric power to a particular area.²⁵ Because sellers could exercise market power within these pockets, some "mitigation measures" (not specified in the Opinion) would need to be adopted to counterbalance its exercise.²⁶

The Commission indicated that it would begin by implementing wholesale competition, to be followed shortly thereafter by competition at the retail level. Deregulation would include a "reasonable opportunity" for recovery of strandable costs from customers, following alleviation of as much of the costs as possible by the utilities themselves, but the Commission gave no guarantee that every dollar of strandable investment would be recovered from ratepayers.²⁷ The Commission also recognized the need to address environmental concerns potentially ignored in a competitive marketplace and to maintain consumer protections that regulation provides.²⁸ Finally, the

^{21.} Id.

^{22.} Id. at 534.

^{23.} Id.

^{24.} See id. ("Finally, retail competition is most likely to stimulate a competitive ESCO market and encourage ESCOs to find ways to deliver power and services at lower prices.").

^{25.} *Id.* at 543. The primary load pockets were in New York City and Long Island. *Id.* at 531. A load pocket is a load area "that, because of transmission system limitations, requires that some generation be located within the area for reliable service." *Id.* at 520 n.11. These producers accordingly do not face competition from more distant suppliers.

^{26.} Id. at 554.

^{27.} Id. at 555.

^{28.} See id.

Commission stated that although it "strongly encourage[d] divestiture" of generation assets, it would not require immediate divestiture.²⁹ It left the issue to be "worked out individually for each company."³⁰

Opinion 96-12 directed the five major New York utilities to file individual plans for implementing the Commission's vision, including a plan for retail access, rate reductions, and corporate restructuring.³¹ The utilities subsequently petitioned for court review of the order, broadly attacking the Commission's power to engage in long-range planning with regard to the future structure of the industry, as well as arguing that the specifics of the Commission's directions exceeded its powers.³² The court, however, wrote approvingly of the Commission's broad jurisdiction:

The overriding issue of this case is the mode to be followed by the People for generation, transmission and distribution of ... electric energy—monopolistic or competitive, or some gradation in between.... The Public Service Law is a blueprint within which the Public Service Commission is charged with the governance of the energy resources of the State of New York within the guidelines therein set forth!³³

Indeed, even though the PSC had not yet ordered the industry to do anything other than file plans, the court indicated that it was quite prepared to uphold the Commission's efforts to restructure the industry.³⁴

Opinion 96-12 encourages utilities to divest themselves of generation assets in order to facilitate the development of a competitive market place It does not, however, in fact direct divestiture. Nevertheless petitioners petition the Court for a declaration that the Commission lacks authority to do so. Though academic questions are not a proper subject for judicial review [citation omitted], it is meaningful to note that divestiture may be effected through exercise of powers inherent in the PSC's discretion to set rates.

Prometheus' act of courage and beneficence in breaking the monopoly of the gods by giving electrical energy to mankind—and its terrible consequences to him—may not be demeaned by a mere transfer of that monopoly to the lords of industry, for the benefit only of some and not of all. It was a gift to mankind, not a gift to a favored few. If events ultimately demonstrate that utility ownership of generation facilities jeopardizes "just and reasonable" rates or "safe and adequate" services [citation

^{29.} Id. at 542.

^{30.} Id.

^{31.} See id. at 555.

^{32.} See Energy Ass'n of N.Y. State v. Pub. Serv. Comm'n, 653 N.Y.S.2d 502 (Sup. Ct. 1996). Specifically, the utilities attacked the PSC's power to order retail wheeling, to restructure the industry by ordering divestiture of generating facilities, and to refuse to require ratepayers to compensate the utilities for all stranded investments. *Id.* at 510, 512-13.

^{33.} Id. at 507.

^{34.} See, e.g., id. at 513:

Each utility subsequently negotiated consent settlements with the Commission.³⁵ Although each settlement varied to some extent, they did have some common features. Most called for scheduled reductions in electricity prices to all classes of customers, which reductions would occur whether the user purchased electricity from the regulated firm or from some alternative supplier. Con Edison's agreement, for example, provided for a 25% reduction for five years to certain large industrial customers; residential customers were to get a graduated reduction which would reach 10% in the fifth year (ending in 2002).³⁶ All except for Rochester Gas & Electric agreed to divest their non-nuclear generating facilities (RG&E agreed to set up a structurally separate affiliate to hold its generating unit). All agreed that within a three or five-year period all customers will be able to purchase electricity from an alternative supplier. As a City Bar Association Report subsequently stated, "[a]ll of the plans are premised on the expectation that a competitive market for the supply of electricity will result in lower electricity prices for all classes of customers."37

B. Wholesale Markets

With the split of ownership of generation from transmission and distribution came the need to establish a new intermediary institution which would not only take over the function of managing the dispatch of power through the transmission grid, but could also deal with the pricing of that power. In its 1996 Opinion, the PSC called for the establishment of "an independent system operator" to operate and coordinate the electric grid and to perform a "market exchange function" by acting "as the bidding or market forum for spot market transactions." The Commission recognized that the ISO would be subject to regulation by the Federal Energy Regulatory Commission (the ISO would be involved with sales for resale, which is committed to FERC jurisdiction). Nevertheless, the PSC retained regulatory oversight, stating that it expected the utilities to work collaboratively

omitted], it would appear the Commission may condition discretionary rate relief on asset divestiture.

ld.

^{35.} See Committee on Energy, Ass'n of the Bar of the City of New York, A Status Report: Electric Utility Restructuring in New York, 53 THE RECORD 347, 363 (1998) [hereinafter 1998 City Bar Report].

^{36.} Id. at 366.

^{37.} Id. at 365.

^{38.} Opinion 96-12, supra note 9, at 544.

^{39.} See 16 U.S.C. § 824(b)(2) (2000).

with the PSC staff and to present their filings to the Commission before submitting them to the FERC.⁴⁰

The PSC anticipated that the ISO would provide initial filings with it and the FERC by October 1, 1996, and that a wholesale competitive market "will begin in early 1997." These predictions proved overly optimistic.

The logical institution to take over the ISO functions was the New York Power Pool (NYPP), formed in 1966 to improve system reliability after a 1965 blackout disrupted service throughout the Northeast.⁴² Numerous interested parties subsequently met to develop detailed proposals for transforming the NYPP into the New York ISO, leading to a proposal eventually presented to the FERC in January 1997.⁴³ The Proposal as revised included the following elements:⁴⁴ 1) energy prices would be set through continuous day-ahead and real-time auction markets; 2) the price of energy would vary depending on location (using location-based marginal cost pricing), thereby reflecting the varying costs of energy production throughout New York State; 45 3) auctions would follow a "single price" approach, in which the highest single bid price sufficient to clear the market would set the price for all accepted bids; 4) transmission customers would pay a congestion charge for use of the transmission system, to the extent that a particular energy transaction involved a congested transmission path; and 5) customers would be allowed to buy and sell energy through bilateral contractual transactions independent of the NYISO's auction markets.

After extensive review, the FERC approved the ISO proposal in September 1999.⁴⁶ The NYISO began operations in November 1999; on December 1, 1999, the NYISO took full control of New York's wholesale power system, nearly three years behind the PSC's proposed schedule.⁴⁷

^{40.} Opinion 96-12, supra note 9, at 533.

^{41.} Id. at 548.

^{42.} DEP'T OF PUB. SERV., STATE OF NEW YORK, INTERIM PRICING REPORT ON NEW YORK STATE'S INDEPENDENT SYSTEM OPERATOR 18 (2000) [hereinafter INTERIM PRICING REPORT], available at http://www.dps.state.ny.us/nyiso.pdf.

^{43. 2001} City Bar Report, supra note 4, at 59-60.

^{44.} See id. at 60.

^{45.} See Cent. Hudson Gas & Elec. Corp., 86 F.E.R.C. ¶ 61,062, 61,222-61,224, 1999 FERC LEXIS 176, at *78-*93 (1999) (discussing location-based marginal cost pricing).

^{46.} FERC conditionally authorized the establishment of the ISO in 1998. Cent. Hudson Gas & Elec. Corp. et al., 83 F.E.R.C. ¶ 61,352, 62,404, 1998 FERC LEXIS 1284, at *1 (1998). It approved the ISO's governance structure in September 1999. Cent. Hudson Gas & Elec. Corp. et al., 88 F.E.R.C. ¶ 61,229, 61,760, 1999 FERC LEXIS 1880, at *14 (1999).

^{47. 2001} City Bar Report, supra note 4, at 61 & n.18.

In the understated words of a December 2000 report on the NYISO done by the PSC staff, "[t]he NYISO has had a difficult beginning."⁴⁸ The technical effort necessary to run the two auction markets, plus the effort to monitor the results, has proved more challenging than expected and much effort during these first two years has been spent dealing with market design issues and mechanisms to control price spikes.

One feature of particular note has been the willingness of the NYISO to impose a number of bidding rules under which it will not accept the "highest bid price" in its auctions, in effect imposing regulated prices in place of market-set ones. For example, on June 5, 2000, the NYISO's Management Committee approved a proposal to adopt a "temporary" bidding cap of \$1,000 per MWH; after the June 26 price spike, the NYISO Board raised the proposed cap to \$1,300 per MWH (the highest bid received during the June 26 price spike).⁴⁹ The NYISO explained that although it was "philosophically opposed to any form of price control,"50 there was a need for the caps in the absence of "price responsive demand"51 (that is, consumers continued to demand electricity in peak periods when supply is tight, particularly in the summer, leading to potential price spikes). The cap was originally set to expire on October 28, 2000.⁵² It was subsequently extended to October 31, 2001, because of the continuing possibility of tight supplies during the Summer 2001 period,⁵³ and then for an indefinite period pending the establishment of a new northeastern regional transmission organization.⁵⁴

More important are the "market mitigation measures" adopted by the NYISO to "mitigate the market effects of any conduct that would substantially distort competitive outcomes" in New York electric markets.⁵⁵ These measures are designed to remedy conduct that (1) is

^{48.} INTERIM PRICING REPORT, supra note 42, at 2.

^{49.} N.Y. Indep. Sys. Operator, Inc., 92 F.E.R.C. ¶ 61,073, 61,296 n.3, 2000 FERC LEXIS 1469, at *3 (2000).

^{50.} Id. at 61.296.

^{51.} *Id*.

^{52.} Id. at 61,303.

^{53.} See N.Y. Indep. Sys. Operator, Inc., 95 F.E.R.C. ¶ 61,186, 61,658, 2001 FERC LEXIS 1021, at *1 (2001).

^{54.} See Order Granting Extension of Energy Bid Cap and Temporary Extraordinary Procedures Subject to Modifications, 97 F.E.R.C. ¶ 61,095, 2001 FERC LEXIS 2570, at *1 (2001) (extending cap until the Northeastern Regional Transmission Organization is "operational and operating pursuant to market rules as established in the final rule issued in the Commission's RTO market design and market structure rulemaking").

^{55.} See NYISO Market Monitoring Plan, Market Mitigation Measures, Attachment H to FERC Electric Tariff, § 1.a (2001), available at http://www.nyiso.org/services/oatt.html. The

"significantly inconsistent with competitive conduct;" and (2) would result in a "material change" in one or more prices in a New York electricity market.⁵⁶

What conduct is considered "inconsistent with competitive conduct"? According to the NYISO, it is conduct that "would not be in the economic interest of the Market Party in the absence of market power." Such conduct can take the form of: (1) "[p]hysical withholding" of output; (2) "[e]conomic withholding" of output (unjustifiably high bids); or (3) "[u]neconomic production" of output (to take advantage of a transmission constraint). Sa

The rules then identify the criteria for determining whether any of these three types of conduct have occurred and hence whether market power has been exercised. For example, "economic withholding" is defined to occur where a bid is 300% higher than the "reference levels" for the generator in question (or \$100 per MWH higher, whichever is less).⁵⁹ "Reference levels" are defined in relation to past bids, or, if adequate data are not available, in relation to the estimated costs of the facility or an average of competitive bids of similar facilities.⁶⁰ When economic withholding occurs, and prices increase by 200% (or \$100 per MWH, whichever is less), the NYISO can intervene immediately to impose a "default bid" equal to the reference level.⁶¹

C. Retail Competition

Opinion 96-12 also sought to foster competition at retail, emphasizing the need to establish access to retail electricity markets. The PSC envisioned the formation of the ISO as a "first step" which would then lead to "an orderly and rapid transition to full retail

tariff filing was accepted by FERC on June 28, 2001. See N.Y. Indep. Sys. Operator, Inc., Order Accepting Tariff Filing as Modified, 95 F.E.R.C. ¶ 61,471, 2001 FERC LEXIS 1532 (2001).

^{56.} See NYISO Market Monitoring Plan, Market Mitigation Measures, Attachment H to FERC Electric Tariff, § 1.a (2001), available at http://www.nyiso.org/services/oatt.html.

^{57.} Id. § 2.2.b.

^{58.} Id. § 2.3.

^{59.} Id. § 3.1.2.

^{60.} See id. § 3.1.4.

^{61.} See id. §§ 3.2.1, 4.2. Bids that increase prices by 100% are subject to a "slower" mitigation process, under which the NYISO can file a petition with the FERC for review of mitigation measures. See id. § 3.2.3. The NYISO also administers mitigation measures for bids in New York City, where a transmission constraint can prevent access to competitive generation. If the combined bids for the day-ahead in-City market have a market clearing price that is 5% greater than the price at Indian Point, then either the average bid prices during an unconstrained period or cost-based bids are substituted. See 2001 City Bar Report, supra note 4, at 89.

access."⁶² The model of retail access, the PSC wrote, was to provide an opportunity "for each individual retail customer to buy electricity from a generator (either directly or through a power marketer/broker) rather than through a regulated utility. The transmission and distribution utility would simply deliver power to end-users."⁶³

Retail competition and choice, however, have proven difficult to implement. In a proceeding begun in March 2000, the PSC attempted to assess the progress that had been made in opening retail electricity markets in New York to competition and to identify obstacles to achieving retail competition.⁶⁴ A report issued a year later by the administrative law judges hearing the matter revealed that fundamental issues about retail competition still needed to be resolved (for example, whether utilities should be permitted to remain in both the commodity and retail businesses) and identified a variety of obstacles to the establishment of a viably competitive retail market.

A number of the identified obstacles center around wholesale markets.⁶⁵ Wholesale price volatility makes it difficult for energy supply companies ("ESCOs") to guarantee particular prices to customers. Delays in payment settlements between the ESCOs and the NYISO compound the problem, making it difficult for an ESCO to know what risk it was taking in guaranteeing particular retail rates.⁶⁶ Transmission constraints limit the opportunity to move power to areas of highest need and limit the numbers of competitors in certain areas. Most customers lack demand metering and are unable to reduce load in response to price signals.

The key problem, however, may simply be that the potential savings to consumers from choosing alternative suppliers have been "too low to generate customer interest." Where savings are a small percentage of a relatively small bill, and where uncertainty about alternative suppliers

^{62.} See Opinion 96-12, supra note 9, at 523.

^{63.} Id. at 533.

^{64.} See Proceeding on Motion of the Commission Regarding Provider of Last Resort Responsibilities, the Role of Utilities in Competitive Energy Markets, and Fostering the Development of Retail Competitive Opportunities, Case No. 00-M-0504, 2000 N.Y. PUC LEXIS 261, at *10-*11 (2000).

^{65.} See CONCEPTS, ISSUES, AND VIEWS OF THE FUTURE: REPORT ON THE PARTIES' COLLABORATIVE EFFORTS, at V-8 - V-9 (April 3, 2001), available at http://www.dps.state.ny.us/00m0504/00m0504_final.PDF [hereinafter APRIL 3 REPORT].

^{66. &}quot;As of mid-August, [2000] the [NY]ISO had issued only one balancing bill to ESCOs, covering their customers' actual usage for November 1999." See id. at V-9.

^{67.} See id. at V-2.

is high, retail switching is not economically attractive.⁶⁸ Although a number of these problems have greater impact on residential, or smalluse consumers, industrial consumers have not fared much better and the retail market for these consumers is similarly "virtually nonexistent."⁶⁹ The result is an overall customer migration rate to ESCOs for New York State of 3.9% as of March 2001.⁷⁰

The question of the future role of the utilities in retail markets was addressed in a Recommendation Decision issued in July 2001 in which the administrative law judges incorporated a proposed "end-state vision" for New York retail electricity markets which would further disaggregate the various components of the sale and distribution of electricity. First, electric utilities should exit the "commodity" market, that is, they should no longer be permitted to buy or sell electricity. Second, they should be "removed from any other market that becomes workably competitive."⁷¹

The decision did not recommend immediate implementation of this vision. It qualified the proposal with five preconditions, the most significant being the existence of "workably competitive wholesale markets." The timetable was left open-ended. The administrative law judges concluded that "it does not appear that workably competitive wholesale markets for electricity will exist for three to four years, and workably competitive retail markets for residential and small commercial customers may not develop for a number of years

^{68.} The April 3 Report notes that large customers may find the savings adequate to justify switching to a competitive ESCO because the absolute amount of the savings is larger (even though it is only a small percentage of the overall charges). See id. at V-2 n.4.

^{69.} *Id.* at V-85 ("The current state of the retail market for electricity among industrial consumers is similar to that for residential customers—that is, virtually nonexistent. [R]equests by industrial customers for bids on their electricity requirements often are met with little or no response.").

^{70.} See Proceeding on Motion of the Commission Regarding Provider of Last Resort Responsibilities, the Role of Utilities in Competitive Energy Markets and Fostering Development of Retail Competitive Opportunities, Case No. 00-M-0504, 2001 N.Y. PUC LEXIS 446, at *30 (2001) [hereinafter Recommendation Decision].

^{71.} Id. at *228.

^{72.} See id. at *119. The other conditions are: ESCOs be able and willing to provide the services in the relevant industrial, commercial, or residential electric market; all customers who need service can obtain it; there is "general public acceptance of restructuring and a reasonable expectation that the utility's exit from the market will yield additional benefits or savings for consumers"; and the legal issues as to the Commission's authority to order these changes have been addressed. *Id.*

thereafter."⁷³ Accordingly, it was not "prudent" to set a "date certain" for requiring the utilities to exit all energy commodity markets.⁷⁴

D. Effect on Prices

Table 1 indicates that average prices for electricity in New York have not declined since deregulation began in 1996 and that prices remain high in relation to other major industrial states.

Table 1.⁷⁵ Comparison of Average Electricity Prices: New York, Major Industrial States, and U.S., 1996-2000 (cents per KWH) (average revenue)

| | 1996 | 1997 | 1998 | 1999 | 2000 ⁷⁶ |
|--------------|-------|-------|-------|-------|--------------------|
| New York | 11.06 | 11.13 | 11.13 | 10.71 | 11.19 |
| California | 9.48 | 9.54 | 9.03 | 9.34 | 8.53 |
| Illinois | 7.69 | 7.71 | 7.46 | 6.95 | 6.58 |
| Michigan | 7.10 | 7.04 | 7.09 | 7.14 | 7.11 |
| Ohio | 6.30 | 6.25 | 6.38 | 6.40 | 6.51 |
| Pennsylvania | 7.96 | 7.99 | 7.86 | 7.67 | 6.59 |
| Texas | 6.16 | 6.17 | 6.07 | 6.04 | 6.46 |
| U.S. Average | 6.86 | 6.85 | 6.74 | 6.66 | 6.69 |

Indeed, as Table 2 shows, New York's electricity rates are the third highest in the United States (second in the continental United States).

Table 2.⁷⁷ Average U.S. Electricity Prices, 5 Highest States, 2000⁷⁸ (cents per KWH) (average revenue)

| State | Price | |
|------------------|-------|--|
| 1. Hawaii | 14.04 | |
| 2. New Hampshire | 11.60 | |
| 3. New York | 11.19 | |
| 4. Vermont | 10.22 | |
| 5. Rhode Island | 10.20 | |

^{73.} Id. at *113.

^{74.} Id.

^{75.} U.S. Energy Information Administration.

^{76.} Estimated data for 2000.

^{77.} U.S. Energy Information Administration.

^{78.} Estimated data for 2000.

Given the slowness with which deregulation has been implemented in wholesale markets, and the fact that the data for 2000 are estimates, it may be that the effects of deregulation have yet to be seen. It seems unlikely, however, that the result will be a price decline. There is general agreement that wholesale prices in 2000, the first year of the NYISO's operation, were higher than historical levels.⁷⁹ This increase was in part caused by higher natural gas and oil prices incurred by New York generators (particularly important in Eastern New York) and in part caused by the outage of the Indian Point 2 nuclear unit (which provides substantial capacity in Eastern New York).80 On the other hand, the summer of 2000 was cooler than prior years, which should have reduced prices.⁸¹ Based on the assumption that new generation and transmission investment will lag behind demand growth and that bidders will be able to exercise market power and engage in strategic bidding behavior, future prices are predicted to rise, with summer rates in 2005 predicted to be 46% higher than 2000.82

III. REGULATED DEREGULATION

Three points emerge from the description of New York's experience with electricity deregulation. First, there is still a great deal of regulation, both at the state and federal levels. We may not have a cost of service rate regulation (although such rate regulation had already been greatly diminished both by PSC initiatives and by a tendency to negotiate rate reductions rather than order them). But we do have extensive governmental oversight of the mechanism put into place to manage competitive markets, and the NYISO itself is exercising rate regulatory power. Second, the time line has been substantially longer than was predicted. The New York Public Service Commission thought that wholesale markets would be operating by 1997 with retail competition to follow shortly. Neither is safely here. Third, the main goal of deregulation, the lowering of price, has not been achieved. For

^{79.} See David B. Patton, NEW YORK MARKET ADVISOR ANNUAL REPORT ON THE NEW YORK ELECTRIC MARKETS FOR CALENDAR YEAR 2000, at 11 (April 2001) [hereinafter ADVISOR REPORT], available at http://www.nyiso.org/services/documents/groups/mgmt_comm/04_17_01/annual_report_patton.pdf; APRIL 3 REPORT, supra note 65, at V-8 (noting that wholesale prices "have been volatile and higher than historical levels"); 2001 City Bar Report, supra note 4, at 39 (stating that "[e]nergy prices in New York are higher now than prior to the formation of the NYISO").

^{80.} See ADVISOR REPORT, supra note 79, at 11-19.

^{81.} See id. at 20-21.

^{82.} See id. at 22-24 & fig. 15.

a number of reasons, prices in New York have remained, at best, at historical levels and are still high in relation to other states.

Four factors help explain these results: the institutions of deregulation; the approach that regulators have taken to "market power"; the industrial facts of electricity markets; and the design of the wholesale auction market.

A. Institutions of Deregulation

Deregulation in the United States has most often been led by the regulatory agencies themselves. This is a paradox for public choice theorists, who would not have predicted that "captured" regulatory agencies would push into the marketplace the very companies they supposedly had been protecting.⁸³ It has also been the case, however, that the legislature has subsequently stepped in to shape the industry. Sometimes this happens quickly (as with trucking⁸⁴); sometimes it takes the legislature far longer (as with telecommunications⁸⁵).

Electricity deregulation is likewise regulatory agency-led, but there has yet to be real legislative direction. The FERC has proceeded under the haziest of mandates from the 1992 Energy Policy Act.⁸⁶ The New York Public Service Commission, however, has not had even that amount of legislative oversight, but has developed and directed electricity deregulation solely on its own.⁸⁷

One consequence of this legislative default is that the PSC's normal consultative processes (as opposed to its adjudicative processes) have been even more overtly legislative than would otherwise have been the case. The result has been that the PSC has cast its role both as policy-maker and as crafter of compromises among various competing interest groups. This inevitably muddies its role as administrative decision-maker acting pursuant to delegated legislative authority. If its call for collaborative efforts among interest groups more resembles legislative efforts than administrative efforts, it must always be aware that its activities are ultimately subject to court review. Although that review has been quite favorable to the Commission so far, nevertheless, the

^{83.} See Joseph D. Kearney & Thomas W. Merrill, The Great Transformation of Regulated Industries Law, 98 COLUM. L. REV. 1323, 1393-94 (1998).

^{84.} See Motor Carrier Act of 1980, 49 U.S.C. § 13101 (2000).

^{85.} See Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56.

^{86.} See FERC Order No. 888, supra note 2, at *141 (discussing 1992 Act).

^{87.} All other states that have engaged in electric power deregulation have done so with legislative action. See FED. TRADE COMM'M STAFF, COMPETITION AND CONSUMER PROTECTION PERSPECTIVES ON ELECTRIC POWER REGULATORY REFORM: FOCUS ON RETAIL COMPETITION app. A (Sept. 2001) (reviewing deregulation in twelve states).

Commission may feel itself better served by getting the parties to agree rather than having to get them into court. This need for legislative compromise inevitably slows the process.

Even had there been legislative input, the fact is that the Public Service Commission is the only government institution with the tools to manage the deregulation of this industry. But having the PSC guide deregulation has consequences. No matter how committed the PSC is to marketplace incentives, it still approaches the problems, first of all, from its institutional perspective as the agency that has been (and will continue to be) responsible for regulating the electric power industry. Ultimately this entails protecting consumers from excessive rates while still making certain that the industry is financially viable so that it can provide an essential product. Cost of service rate regulation has always sought to do both, and the Commission continues to refer to the need to balance consumer and producer interests. Reliance on markets, by contrast, rests on the assumption that everything will work out, that consumers will be well served, that the efficient will prosper, and that supply will meet demand. Regulators do not make these assumptions. Regulators are responsible for results and will be blamed for failure.

Deregulation has also been affected by the decision to make the New York Power Pool into the Independent Systems Operator. The NYPP spent thirty years serving a technical function of dispatching power produced by vertically integrated regulated utilities. The NYISO began with the same building and much of the same staff at the NYPP; its software, rules, and procedures were, to a large extent, adaptations of what the NYPP had been using. Not surprisingly, the NYPP was not fully ready to take on the additional task of setting up complicated wholesale electric markets so that they would work effectively and not be subject to potential gaming by sophisticated bidders.

B. Price Regulation and Market Power

The regulatory perspective of the PSC and the NYISO are most clearly shown in the way they think about "market power" in comparison with how "market power" is dealt with in antitrust analysis. For antitrust purposes, market power has been defined as "the power to control prices or exclude competition" or "the ability profitably to maintain prices above competitive levels for a significant period of

^{88.} See INTERIM PRICING REPORT, supra note 42, at 19.

^{89.} United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 391 (1956).

time."⁹⁰ What is critical for antitrust, however, is not the extent to which price is above competitive levels, but the power to impose the price rise and make it stick. For example, it is not an antitrust violation for a seller (or group of sellers) to set a price "above the competitive level"; indeed, even a monopolist can sell at the monopoly price without incurring liability.⁹¹ What is of concern to antitrust are the conditions that enable this pricing to occur.

Antitrust focuses on market structure, rather than actual prices, not because antitrust is indifferent to prices that exceed costs. Antitrust looks to minimize government intrusion into economic decisions, an approach that is consistent with market principles. If markets are competitive, or potentially so, there is little reason to ask courts to stop supra-competitive pricing that the market itself will correct. In fact, antitrust assumes that the courts are not institutionally able to police high prices on an on-going basis. As Donald Turner has noted, "to hold unlawful the charging of a monopoly price by a monopolist, or the maintaining of noncompetitive prices by oligopolists, would be to invoke a purely public-utility interpretation of the Sherman Act." Congress did not intend the courts to act "much like public-utility commissions in order to cure the ill effects of non-competitive oligopoly pricing."

The New York Public Service Commission, of course, is a public utility regulatory agency. Thus, it should not be surprising that when the PSC talks about the exercise of market power it refers not only to structural conditions that might enable a seller to exercise market power, 94 but also to the ability of sellers with "dominant market power" to price above marginal costs and earn excessive profits, a result from which it intends to protect consumers. Even more directly, the efforts of the PSC staff to identify market power have not focused on market structure but on the application of behavioral tools which can identify whether market power has been exercised by examining the extent to which bids from individual generating units deviate from marginal

^{90.} U.S. Dep't of Justice & Fed. Trade Comm'n, *Horizontal Merger Guidelines § 0.1* (1992), reprinted in John J. Flynn, Harry First & Darren Bush, Antitrust: Statutes, Treaties, Regulations, Guidelines, Policies 260 (2001).

^{91.} See, e.g., Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 294 (2d Cir. 1979).

^{92.} See Donald F. Turner, The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusal to Deal, 75 HARV. L. REV. 655, 669 (1962).

^{93 14}

^{94.} See Opinion 96-12, supra note 9, at 541-44.

^{95.} See id. at 542 n.98.

cost.⁹⁶ Similarly, the market mitigation rules developed by the NYISO are based on comparing current bids to past bidding behavior or to costs. "Market power" is exercised, by definition, when bids are too far above these reference price thresholds.⁹⁷

Not only are the PSC and the NYISO willing to call bids that exceed marginal costs an "exercise of market power," they think it is important to do something about such prices. Thus the NYISO, in seeking approval from the FERC for bidding caps and faster mitigation procedures, argues that it is indefensible to tolerate price spikes such as the June 26 spike that resulted in "substantial and unjustifiable wealth transfers from buyers to sellers." 98

Nor should it be surprising that the PSC's administrative law judges would be concerned that electricity markets might very well produce high prices.

[T]he lack of meaningful elasticities on both the demand and supply side, coupled with increasing shortages of supply, is a recipe for disaster. As demand equals supply on-peak, the price of electricity in the wholesale markets, if not otherwise capped, could rise without limit. Furthermore, these market characteristics could allow suppliers with even a very small share of the overall market to exercise significant market power, to raise prices to uneconomic levels and to extract excessive profits.⁹⁹

C. The Industrial Facts of Electricity Markets

The peculiar characteristics of producing electricity are well-known. 100 Electricity generally cannot be stored. It must be manufactured by a generating plant at virtually the same time that it is consumed (the ultimate in just-in-time manufacturing, observes Paul Joskow 101). Electric power networks are not switched networks; electricity does not flow directly from the producer to a specific consumer, but follows the laws of physics. Electricity goes into a common pool of electric power, drawn on by consumers of that electricity. The network must be constantly balanced, in terms of

^{96.} See INTERIM PRICING REPORT, supra note 42, at 37-39 (use of the Lerner Index).

^{97.} See supra text accompanying notes 57-58.

^{98.} See FERC Order, supra note 5, at 62,689.

^{99.} Recommendation Decision, *supra* note 70, at *26 (emphasis added). For an example of FERC's efforts to deal with market power, see AEP Power Marketing, Inc., 97 FERC ¶ 61,219 (2001) (adopting "Supply Margin Assessment" screen, finding market power where seller's capacity exceeds surplus generating power available at peak demand, without regard to seller's market share)

^{100.} This description draws on Joskow, supra note 2, at 116-17.

^{101.} See id. at 116.

inflows and outflows of energy, which requires the network operator to attend to congestion constraints and generator operation throughout the system. A failure of a major generator can disrupt operations throughout the system.

The characteristics of electricity networks make them far different to manage than, for example, telecommunications networks or even airline networks. The need for continuous coordination among producers and distributors inevitably affects the complexity of deregulation in ways that are not the case for other industries that have been deregulated. Vertical integration had formerly supplied some of that coordination (although not all, as the need for pre-deregulation power pools indicates), but the divestiture of generation from transmission networks made the need for coordination more acute and made inevitable a more regulatory approach than has been necessary in other industries.

Two other aspects of electric power markets have affected the progress of deregulation. A major purpose of market-set pricing is to give clear and accurate signals to investors and consumers so that they can alter their behavior in ways that are efficient. At this time, however, structural factors affect the ability of both producers and consumers to respond to high prices. On the supply side, New York faces a number of transmission constraints (for example, the Central East interface between Western and Eastern New York and the transmission constraint between New York and New England) which affect the ability to import electricity into markets at times of high price and high demand. 102 A longer-term solution would be entry through the construction of either new production or transmission capacity, but this is a slow and difficult process, if only because of substantial environmental and siting issues. 103 Until such entry occurs, however, electricity markets in New York will be subject to price spikes at periods of high demand. This, in turn, fuels the willingness to maintain price caps which, in turn, blunts the incentives of investors to invest in new capacity as investors become more uncertain about regulatory willingness to intervene when prices rise.

On the demand side, consumer ability to respond to high prices at periods of high demand is adversely affected by the lack of enhanced

^{102.} See ADVISOR REPORT, supra note 79, at 6, 52-53; INTERIM PRICING REPORT, supra note 42, at 25 (Central East interface).

^{103.} See ADVISOR REPORT, supra note 79, at i (generation and siting process "have resulted in very few new generators entering the market over [the] past 5 years"); Kirk Johnson, Promise and Peril in New York Power Plans, N.Y. TIMES, Aug. 14, 2000, at B1 (discussing potential new entry in New York City).

metering. Enhanced metering provides for hourly or other interval recordings of usage, along with other functions such as the monitoring of power quality, outage duration, and real time pricing. New York utilities provide enhanced metering to only approximately 3000 of the state's largest customers. Although the PSC has also required utilities to provide enhanced metering upon request, few, if any, customers have chosen to own their own meters. The inability of consumers to know exactly when prices are high, of course, blunts the ability of consumers to shift usage off peak and thereby lower electricity prices or diminish the need for additional generation or transmission capacity.

D. Wholesale Auction Market Design

The NYISO runs a market exchange that enables buyers and sellers to meet to establish prices. It is designed as a central wholesale auction market in which all generators are paid at the highest price bid, rather than being paid at the price that each generator bids. This design is consistent with encouraging bids that approach variable costs, which helps baseload generating plants meet their financial costs, but it also provides incentives for bidders to game the process so that they can collect revenues that recover fixed costs and, in times of tight supply, obtain monopoly rents. Producers may bid some of their capacity at a high price, or withhold some capacity, in the expectation that the high marginal bid will be taken, paying lower cost generation at the high market-clearing price.

The need to regulate this market is in part a reflection of the potential for this type of strategic bidding behavior and the difficulty of distinguishing between strategic bids and bids that reflect operating criteria. The willingness of traders to engage in strategic behavior, however, is not solely a reflection of the specific market design chosen by the NYISO. All exchange markets need some regulation to function efficiently and fairly, the New York Stock Exchange being a good example. This type of regulation may be complex and will likely vary over time. Deregulation of electricity markets thus means that financial regulation may replace price regulation (particularly as complex financial instruments are developed and traded). It does not mean the end of regulation.

^{104.} See In re Competitive Opportunities Regarding Electric Service, 194 Pub. Util. Rep. (PUR) 4th 129, 1999 NY PUC LEXIS 280, at *20 n.1 (N.Y. PSC 1999) (Order Providing for Competitive Metering).

^{105.} See id. at *22.

IV. CONCLUSION

New York's effort to deregulate electricity markets has been underway since the early 1990s. The New York Public Service Commission has directed the effort, with no deregulatory state legislation, using a process that has attempted to forge a consensus among producer and consumer interests. The Commission's goal of quick implementation has not been achieved, however. Designing and operationalizing the wholesale market, through the establishment of the New York Independent System Operator, has proven to be more complex than expected and price spikes and capacity constraints have forced all parties to accept some degree of continued price regulation and monitoring. Retail market competition has proven even more elusive and competing energy supply companies have not yet provided substantial choice for most New York consumers. In bottom-line terms of the price of electricity, the Commission's goal of lowering electric prices, both absolutely and in relation to other states, has not been met.

A number of factors predictably have shaped what has turned out to be "regulated deregulation" rather than full marketplace competition. Deregulation of electricity has been kept in the hands of regulatory institutions that have historically been responsible for insuring that rates are reasonable and that production is reliable. These institutions have understandably used the concept of market power to police results rather than being satisfied with market structures and institutions that might, at some point, correct to achieve appropriate results. Entry barriers into production and generation, and lack of demand-side metering, have made markets slow to self-correct, and the industrial facts of electric power production and distribution dictate more continuing centralized coordination than in other industries that have been deregulated. The adoption of a centralized wholesale auction exchange market has necessitated the adoption of complex rules to deal with strategic bidding and to insure that the market operates fairly and efficiently.

Given these predictable factors, reflection indicates that the PSC was overly optimistic in the goals it set for deregulation's pace and achievements. It cannot be said, however, that the PSC was wrong in embarking on the effort. The critical challenge will be to resist efforts to move away from marketplace incentives and back towards more regulatory control. What is necessary is a continuing evolution in the PSC from regulatory urgency to "supervisor of competitive markets." This means less concentration on price reductions, per se, and more concentration on securing market-set prices, whether "high" or "low."

Investors should be able to understand that regulators at some point will not permit the earning of excessive profits, but regulators must remain aware of the fact that the necessary investment in generation and transmission will occur only if marketplace incentives are provided to producers and to consumers.