Electric Deregulation in New York State

The Need for a Comprehensive Plan

February 2001

H. Carl McCall
State Comptroller

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STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

February 10, 2001

To the People of the State of New York:

Electricity is a necessary part of modern life. Our dependency on it has been a key ingredient to global economic development and improvements in everyone's quality of life. And, as our economy has become increasingly high tech and information based that dependency has grown.

Electricity prices in New York historically have been higher than the nation, disadvantaging businesses, raising the cost of living for our residents and discouraging investment in our State economy. Despite the promise that deregulation of electric markets would lower prices, the New York experience has been the opposite: electric prices in our State are 70 percent higher than the national average today, up from 62 percent above average before deregulation was initiated. New York cannot be a leader in the high-tech New Economy if we continue the current misguided approach to deregulation.

Successful attainment of the goals of deregulation – a reliable supply of electricity at lower prices with cleaner power plants and improved services – is critical to the future of our State. There is a clear role for government in promoting market-based solutions to energy problems and a climate for deregulation to succeed. After carefully reviewing State actions to date, I have concluded that a centralized, coordinated plan is needed – one that tackles critical short-term problems with long-term perspective.

With this report I ask state leaders to adhere to a specific timetable of action designed to set electricity deregulation on the right track. There is a pressing need to turn heightened public concern into concerted public action. The short-term actions I propose reflect the time sensitive nature of the problem – a hot summer in New York City and the downstate area could see brownouts and higher prices.

Short-term actions, however, must be part of a longer term strategy that answers fundamental questions regarding how to address the disparate impact of electricity deregulation on the downstate and upstate economies, the need for

new power plants, the role of energy conservation, the promise of reduced air pollution, how prices are set, how and where new power plants will be sited, and how to protect local governments who are facing reduced revenues from power plant sales.

Actions taken thus far have failed to grasp the difficulty of trying to deregulate electricity markets when the supply of electricity, particularly in the downstate area, is tight. In a deregulated market, when supply is tight, those who control the supply raise prices. This is the critical challenge facing the State.

The Administration moved forward based on four wrong assumptions about electricity deregulation in New York State: that deregulation would lower prices for all customers right away; that supply was sufficient to create competitive wholesale and retail markets; that wholesale competition would stimulate investments in cheaper, cleaner, more efficient power plants despite the challenges of the State siting process; and that competition in the retail market could somehow produce lower prices for consumers without a stable wholesale market.

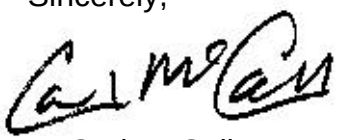
These wrong assumptions have now had time to play out and have produced generally unacceptable results that should have been avoided: price increases, limited progress toward new private sector power plants and no clear environmental improvements. The Administration has responded to these shortcomings by proposing price caps, emergency generators in New York City and belatedly more money for conservation programs. Because they were not part of an overall plan, these reactive steps send mixed messages to the electricity marketplace that threatens the success of deregulation for the long term. New York's reliance on public interventions where private sector forces were supposed to solve problems sends a negative signal to market participants.

Price caps at this juncture effectively change the rules of the game and act as a disincentive to new investment. Emergency generators in New York City should secure the supply of electricity, but they are publicly subsidized power plants competing with investor-owned power producers. Furthermore, the fact that the State siting process was ignored in selecting locations for these generators undermines ongoing efforts to site permanent plants. The additional funding for conservation programs, while needed, imposes a cost on businesses and must be carefully evaluated if investments are to achieve promised public benefits.

The appearance of failure of New York's approach to deregulation is eclipsed by the dramatic problems occurring in California that are grabbing headlines and leading newscasts. While different market forces are affecting California and New York, each state is trying to deregulate markets when supply is tight. More important to New York though, is that our State's economy, particularly the upstate economy, is much weaker than California's. It will not take significant price increases to have a significant negative economic impact.

Electricity is critical to every business and household in the State. The effects of deregulation will have significant and lasting consequences on our economy and our residents. Leadership must be exerted now to remedy the failures of New York's approach to deregulation: making corrections in the short-term that reflect a long-term plan to insure a reliable supply, stabilize prices now and lower them in the future, encourage investments in cleaner power plants and improve customer services. I am hopeful that this report will provide guidance to achieve these results for all New Yorkers.

Sincerely,



H. Carl McCall
State Comptroller

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Executive Summary

This report explores New York State's initial experience with the deregulation of electricity. The experience has been defined by a series of missteps that have caused electricity deregulation to falter. State leaders need to learn from these errors to establish a new, firm footing for deregulation's ultimate success. This new direction must be dedicated to the four promises of deregulation – a reliable supply of electricity, lower prices, a cleaner environment, and improved services.

In 1996, State government stepped up its actions to achieve electricity deregulation. The Public Service Commission (PSC), the State's chief regulator of the electricity industry, took a major step toward deregulation by requiring the State's utility companies to give up their monopoly control of electricity and sell off their power plants to new owners. These new owners were expected to compete with each other in a newly formed wholesale market, governed by the New York Independent System Operator (NYISO). At the same time, the State's utilities and newly formed energy service provider companies were expected to compete with each other to serve consumers through the newly organized retail market. Competition in these markets --- wholesale and retail --- was supposed to lower prices and provide sufficient profits for reinvestment in a steady supply of electricity and new, cleaner power plants.

New York State's progress toward these objectives thus far has been marred by a series of actions that have produced counterproductive results.

When the Administration decided to move forward with deregulation, it rejected legislative proposals in favor of an administrative approach. The Administration ignored a comprehensive plan offered by the State Assembly; warnings by environmental, consumer, some business and labor groups; and editorial opinions expressing concern about key aspects of the deals. Many questions were raised at the time regarding the competence of the PSC's management and the integrity of the process.

The flawed process has driven a flawed approach to deregulation. The first of three critical flaws is that the current approach threatens the profitability of most of the State's other industries, particularly those located upstate. The second is that it places pressure on local and county governments as new power plant owners make new demands for property tax relief. The third is that it strains the budget of most New York households, particularly those living on low or fixed incomes.

Why Deregulation Faltered

The approach to deregulation faltered because it was driven by four wrong assumptions.

Assumption #1: *Deregulation would mean reduced prices for all customers right away.* This was wrong. The primary factors influencing price are pushing them upwards. Limited supply, high oil and gas prices, a new price-setting mechanism and new owners with new bottom lines are all combining to raise prices. New York State's electricity prices are now about 70 percent above the national average, compared to 62 percent higher in 1997. By contrast, prices in New York's neighboring states declined during that period. Electric prices in Pennsylvania, for instance, declined over 21 percent.

Assumption #2: *There was a sufficient supply of electricity in New York State to allow the wholesale and retail markets to mature with a minimum of problems.* This assumption was wrong. The lack of new plant sitings in conjunction with growth in the downstate economy has resulted in restricted supply. When supply is tight, those in control of it raise prices.

Assumption #3*: Competition in the wholesale market would immediately stimulate new investments in cheaper, cleaner, more efficient power plants.* This was wrong. Siting issues are a significant factor even when capital is available. New investors in the industry are also making demands for faster recovery of their investments. And older, inefficient, highly polluting plants do not close simply because new ones come on line.

Assumption #4: *Competition in the retail market could somehow produce lower prices for consumers without a stable wholesale market.* This was wrong. The original PSC agreements in the downstate area allowed Con Edison to pass through higher prices in the wholesale market. Without a stable wholesale market, retail competition cannot lead to price stability.

Why Current Policy Is Contradictory

The public became aware of this policy failure last June and July when NYC's electricity prices rose by 40 percent over the previous summer's prices. Since then, State regulators and energy agencies have been scrambling to fashion a response to avoid an even worse situation this summer. The PSC has asked federal regulators for the authority to impose a wholesale price cap, and it has doubled funds to improve energy conservation programs and assist low income New Yorkers. The New York Power Authority (NYPA) has recently received permission to site ten small electricity generators in New York City on an "emergency" basis.

These steps may prove helpful in the short term, but they point to the fundamental failure of the Administration's and PSC's original deal-driven approach. These short-term strategies are all government interventions after the fact – sending at best a mixed message to the new stakeholders who were told to expect a very different investment environment:

- Price caps threaten to drive away new power plant investment by limiting potential profits for power producers selling electricity on the wholesale market.

- New power plant generation was supposed to come from the private sector, but the "emergency" siting is being done by a public authority. The new "emergency generators" in New York City should serve to ensure reliability, but they send a troubling message to markets.

- Siting ten new generators in New York City neighborhoods without public input damages public confidence in the processes for siting the other needed "permanent" generation.

- The new System Benefits Charge for energy conservation programs, while needed, imposes a cost on the business community and consumers that was not part of the original package.[1]

New York's experience with electricity deregulation is occurring as other states have begun to show signs of success. However, California, where the process has unraveled, is a dramatic example of failure. There are many lessons to be learned from the California experience. One is that introducing competition when electricity supply is tight will lead to higher prices. But merely avoiding California's dismal failure should not be the definition of success in New York. The deregulation risks New York shares with California pose a more serious threat to the weaker New York State economy, particularly upstate.

New York should be looking at models in other states, like Pennsylvania, where prices have decreased by over 21 percent in some areas since the transition to deregulation began. Its strategy has been quite different than New York's – including greater involvement of the public, wholesale price caps, and a clear phase-out of government regulations and phase-in of market control over a longer period of time.

[1] The Assembly's comprehensive deregulation proposal would have provided money for energy conservation programs through a fund created by the sale of New York Power Authority assets. *Competition Plus, Energy 2000: The NYS Assembly's Plan to Cut Electricity Rates and Create Jobs*, June 1999.

Recommendations for Deregulation Policy

There are several short- and long-term strategies that, if taken, should bring some order to what currently amounts to an incoherent policy framework. Their success depends on the State speaking with one voice and being accountable to New Yorkers throughout the transition to deregulation.

Short-Term Emergency Strategy

These short-term strategies are designed to ensure a steady supply of electricity while establishing a firm foundation for the development of deregulated markets.

1. **Within 30 days propose to the residents and businesses of New York State a Plan for Energy Conservation this summer.** The public has been left out of the process thus far. The cost of this exclusion is high. The public is the State's best resource in this effort. High prices require a sensible program that helps people reduce their electricity consumption.

2. **Within 45 days disclose to the public the exit strategy for the 10 emergency generators that have been imposed on New York City neighborhoods, and form a State/City action team to respond to resident concerns**. It should be clear to residents and businesses in areas where generators are located, as well as stakeholders in the electricity market, that this State-funded electricity production and market intervention is temporary. While the generators are in operation, State officials – in cooperation with representatives of the City – must be responsive to community concerns.

3. **Within 60 days explain to New Yorkers who are paying higher prices where the money has gone.** The public has been promised new, cleaner, and more efficient power plants. This can only take place if the higher prices that have created increased profits for the power plant owners are reinvested in new plants. What are the investment plans of these new companies, and will their plans result in the kind of competition needed to bring prices down? While it is clear that most companies are planning new or refurbished facilities, no mechanism is in place to explain how higher prices today will lead to lower prices tomorrow.

4. **Within 90 days establish an agreement that addresses spiraling wholesale prices without undermining deregulation.** The PSC has proposed a soft price cap that offers only limited protection and lacks purpose. If caps are to be used, stakeholders must agree on how long the caps would be imposed and what conditions would trigger a lifting of the caps.

Long-Term Planning Issues

These short-term steps may buy some time, but without a long-term strategy they will not serve their purpose. Any long-term blueprint for success must address the issues outlined below and answer a series of related questions.

1. **Protect the State's economic competitiveness**. Changes in the electricity industry, particularly price increases, have an impact on every business and household in the State. A strategy should be developed for keeping the public abreast of the impact of energy deregulation and the new pricing environment on the State's economy and its diverse industries. The potential impacts on New York City and the surrounding suburbs should be examined and communicated to area residents and businesses. Impacts on the rural, suburban and urban communities in upstate New York should be considered and communicated as well.

2. **Settle the issue of how much new electricity is needed and resolve the question of how much can be achieved through new power plants and how much through energy conservation and demand management**. On the critical issue of the need for more electricity and what options offer the best solution, political leadership must be exercised to facilitate communication between the stakeholders in the energy deregulation process.

3. **Create a system that ensures the integrity of the programs used to conserve energy**. The State's business community has opposed the System Benefits Charge as a tax without a benefit. Environmentalists and PSC staff have argued that the investment in energy conservation efforts provides a reasonable return for the investment. This is a challenge to all involved to ensure that the burden placed on businesses and consumers demonstrates that energy efficiency programs generate the benefits they promise.

4. **Explain how the environmental promise of a cleaner system to provide electricity will be achieved**. Every generation facility in the State and the ones proposed should be part of a larger plan to achieve this goal. The plan should address the energy sources that will be used to power the State's generation facilities five and ten years from now, the future of hydroelectric and coal, how communities, such as Westchester County will be given an opportunity to resolve the issues related to nuclear power, the role of alternative energy sources and the place of distributed generation, and the costs and impact on reliability.

5. **Create a new price-setting mechanism and determine if the organization established to monitor the electricity market is the right one for the job**. The price increases this past summer brought increased

attention to the bidding process and governing structure of the NYISO. The bid process currently used to set wholesale prices ensures higher prices when supply is tight. And, since the short supply of electricity is rewarded so well, the pricing mechanism may work against long-term investments to spur greater competition. A new mechanism is needed. The NYISO, which governs this mechanism and the flow of electricity throughout the State, is a creation of the Federal Energy Regulatory Commission (FERC). It is worth considering if an entity ultimately accountable to the federal government can adequately plan for and represent the needs of New Yorkers.

6. **Restore confidence in the siting process**. The rush to site ten emergency generators in New York City has jeopardized the future of power plant sitings around the State. The process to achieve this objective ran rough shod over community and environmental concerns. The failure to adopt an environmental strategy also undermines credibility, because those communities that are asked to accept existing facilities or new ones have no information about the critical tradeoffs that are involved.

7. **Protect local and county governments from adverse impacts**. The administration did not plan for the impact of electricity deregulation on local governments. The State must address assistance to local and county governments during this period of change.

The Role of Deregulation in the State Economy: Impacts on Businesses, Households and State and Local Governments

Electricity prices are important to economic competitiveness for regions around the State. They are one of the few areas policy makers can act to temper business costs and electric bills for consumers and small business. Unlike other commodities, everyone needs electricity and, as State and national growth become more dependent on high technology and information-based businesses, its importance increases.

The electric industry is in transition from a system of regulated utility companies to a system based on competition. Deregulation was touted as the solution to high electric prices, a solution that would provide businesses and households with more disposable income and consumer choice, and offer an economic incentive for investment in electric production.[2] Recent evidence suggests, however, that the PSC central policy objectives, i.e., lower electric bills, electricity reliability and increased competition, are nowhere near attainment.[3] Rate reductions, which concern the utility services portion of the bill, appear to be marginal and inequitable, with benefits flowing mainly to large customers. During the year, the price for electricity, particularly in New York City, soared and is expected to continue to increase in the coming years. The promise of lower prices in the upstate region has been overly optimistic.[4]

At the retail competition level, despite the size of the New York market, major national energy producers have been hesitant to enter because of the limited incentives. The effect of electric deregulation on local governments has prompted diverse reactions to the high prices affecting residents, to the impact of new rules on municipalization efforts, and to property tax revenue risks.[5] As

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[2] *PSC Charts Course Toward Competitive Electric Industry – Lower Prices and Consumer Choice*, New York State Public Service Commission, May 16,1996.

[3] For a recent discussion of prices in New York State, see *Interim Pricing Report on New York State's Independent System Operator*, New York State Department of Public Service, December 2000.

[4] The conclusion that prices will rise in the upstate region is based on statements made by utilities and the New York State Independent System Operator (NYISO) during discussions in December 2000 and January 2001. Recent price trends, discussed later in this report, substantiate this conclusion. See also, Michael Levenson, "Giving Power to the People," *The Times Herald Record,* August 13, 2000; Craig Wolf, "3 Public Sessions Offered on Central Hudson Rates," *Poughkeepsie Journal*, October 14, 2000; Tim Knauss, "Company Blames Increase on Deregulation of Markets: NIMO Shareholders to Vote on Merger Proposal," *Syracuse Herald-Journal*, January 17, 2001.

[5] See Glenn Blain, "Westchester Ready to fight PSC Rulings," *The Journal News,* January 10, 2001; Beth Fitting, "Frustrated Municipalities Take Utility Battle to Feds," *Central New York Business Journal,* October 20, 2000; Stephen Watson, "NIMO Seeks Tax Deal on Plants: The

power plants are sold, the changed value of generation assets will require new tax assessment negotiations.[6]

Prices and the Outlook for the Future

Historically, a number of factors have contributed to the high price of electricity in New York State relative to other regions in the country. These factors include: higher operating costs (operation and maintenance costs, particularly in the downstate region, labor costs, fuel and uneconomical purchased power from non-utility electric generators); relatively higher utility capital costs; and higher federal, state and local taxes. Dependence on non-coal sources for electric generation, electric purchase contracts based on high energy price forecasts and cost escalation of nuclear plants are some of the factors that have contributed to high electric prices in the state. However, one of the most significant differences between New York and the rest of the country is electric utility taxation. In 1997, the New York State Assembly estimated that 43 percent of the difference in electric costs between New York and the rest of the country was attributable to utility taxes — paid by electric consumers.[7]

Compared to other states, New York's ranking has not improved, and its electric prices remain among the highest in the country for both businesses and households. Though some large industrial customers have seen a modest improvement, most customers have not experienced price decreases. In fact, many residential and commercial customers have seen their bills go up, quite dramatically downstate this past summer.

The most recent comparative data from August 2000 shows New York electric prices averaged for all sectors to be about 70 percent *higher* than the US average. Disturbingly, New York's relative position appears to have worsened since 1997, the year just prior to deregulation, when New York's prices were 62 percent higher than the US average.[8]

Utility Wants the Assessments on Nine Mile 1 and 2 Lowered 99 Percent," *Syracuse Post Standard*, June 16, 2000.

[6] See Joseph Phillips, "Steam Plant Sale Could Impact Tax Base: BC School District Would Realize Biggest Loss," *Delmar Spotlight*, October 13, 2000; Kim Martin, "Utilities Overhaul May Jolt Municipalities: Electric Firms Seek Tax Cuts as Deregulation Nears," *Wall Street Journal*, August 13, 1997; Jeffrey Smith, "Power Plant's Revaluation Raises Tax Bill," *Corning Leader*, September 21, 2000; Ronald Colleran, "Troubled Power Plants Granted A Large Tax Cut," *Buffalo News*, September 19, 2000.

[7] For a succinct review of factors contributing to high electric prices in New York, see *The Electric Industry in New York,* New York State Assembly, October 1997.

[8] *Electric Power Monthy,* Energy Information Administration, November 2000*; Electric Sales and Revenue 1999, 1998, 1997,* Energy Information Administration, October 2000, 1999, 1998. For a full comparison of US and New York prices from 1995-2000, see Table A in the Appendix.

New York's electric prices compare poorly not only to its neighbors but also to most other states. Strikingly, New York still has the highest electric prices of all states in the continental US except for New Hampshire. Our residential and commercial rates remain the highest in the nation -- higher than our neighbors and nearly double those of many southern and western states. New York's industrial prices, though higher than most southern, midwestern and western states, are, except for Pennsylvania, below our neighbors.[9]

As shown in Table 1 below, downstate New York faces particularly high prices as seen by comparing Con Edison's prices to other utilities around the state and large utilities in neighboring states.

Table 1
Comparison of Con Edison prices to other NY Utilities and Large Utilities in Neighboring States, 1999
Average Revenue per Kilowatthour (Cents)

	Residential	Commercial	Industrial	All
Con Edison	**15.87**	**12.78**	**10.21**	**13.79**
Connecticut Light & Power Co.	11.18	9.48	7.27	9.82
Publc Service Electric & Gas (NJ)	11.23	9.47	7.39	9.62
PECO Energy Co. (PA)	11.31	9.76	5.45	8.76
Massachusetts Electric Co.	8.85	7.74	6.82	8.04
Pennsylvania Power and Light	8.07	7.87	5.91	7.53
Long Island Power Authority	13.43	11.18	-	12.16
NYS Elec. & Gas Corp.	13.84	11.4	7.08	11.32
Rochester G&E Corp.	12.45	9.32	6.38	9.67
Oragne & Rockland Utils. Inc.	12.19	8.84	5.34	9.47
Niagara Mohawk Power Corp.	12.23	10.07	4.79	9.01
Central Hudson Gas & Electric Corp.	11.04	8.15	5.39	8.5
New York Power Authority			1.87	5.91

Source: Energy Information Administration, *Electric Sales and Reveue 1999.*

Increased Electric Prices After Deregulation

Comparing electric prices from 1997, before deregulation, to today (see Table 2), New York's average price for all sectors shows no net decrease, while the US average registered a 3.2 percent decline and prices in many of our neighboring states declined. While Pennsylvania leads the group with a 21.3 percent fall in electric prices, Connecticut (-8.6 percent), Massachusetts (-1.5 percent) and New Jersey (-13.2 percent) all had decreases. In New York, a decline in industrial prices was more than offset by average residential and commercial rates remaining nearly the same or increasing slightly from 1997. While prices started

[9] For more detail on comparative electric prices between states see Table B in the Appendix.

to decline in 1998 and 1999, this year -- the first year of a fully functioning, new wholesale electric market -- prices have increased by *8.7* percent.

Table 2
Comparative Electric Prices

Average Revenue per Kilowatthour for All Sectors
Year-to-Date Averages Jan. -Aug. (Cents)

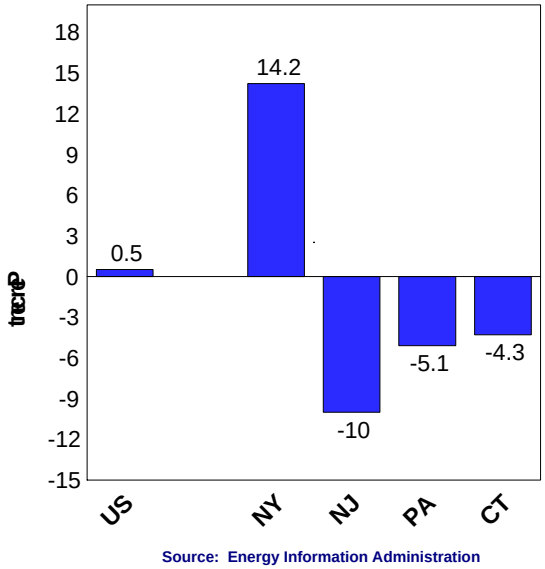
	2000	1999	1998	1997	Percent Change '97-'00	Percent Change '99-'00
US Average	**6.64**	**6.69**	**6.79**	**6.86**	**-3.2**	**-0.7**
New York	**11.2**	**10.3**	**10.9**	**11.2**	**0.0**	**8.7**
Pennsylvania	6.3	7.8	8	8	**-21.3**	-19.2
Illinois	6.6	7	7.8	7.8	**-15.4**	-5.7
New Jersey	9.2	10.3	10.2	10.6	**-13.2**	-10.7
Massachusetts	9.2	9.4	9.7	10.4	**-11.5**	-2.1
California	8.5	9.3	9	9.4	**-9.6**	-8.6
Connecticut	9.6	10	10.4	10.5	**-8.6**	-4.0
Florida	6.8	6.9	7	7.3	**-6.8**	-1.4
Georgia	6.3	6.3	6.5	6.5	**-3.1**	0.0
Michigan	7.1	7.2	7.1	7.2	**-1.4**	-1.4
North Carolina	6.5	6.5	6.5	6.5	**0.0**	0.0
South Carolina	5.5	5.6	5.6	5.5	**0.0**	-1.8
New Hampshire	11.7	11.7	11.9	11.6	**0.9**	0.0
Texas	6.3	6	6.1	6.2	**1.6**	5.0
Minnesota	5.9	5.9	5.8	5.7	**3.5**	0.0
Ohio	6.6	6.4	6.4	6.2	**6.5**	3.1
Alabama	5.7	5.6	5.6	5.3	**7.5**	1.8

Source: Energy Information Administration, *Electric Power Monthly*, Nov. 98-00

After an initial fall in prices in 1998 and 1999, partly through utility rate reductions associated with deregulation, electric prices started to climb this past year for both residential and business customers. With deregulation, utilities now buy most of their power in an unregulated wholesale market. This past summer witnessed significant volatility in this market, with wholesale prices spiking on selected high demand days to 10 and 20 times the average price per megawatt hour. The average summer wholesale price for electricity in the Capital, Hudson and New York City regions increased over 50 percent from May 2000.[10] This translated into soaring summer electric prices in New York, particularly downstate. New York's average summer price shot up 14.2 percent in 2000 compared to a year earlier.

[10] New York State Department of Public Service.

Chart 1.
Percent Change in Average Electric Prices
Summer 2000 vs Summer 1999



Source: Energy Information Administration

Most other states recorded only modest increases or declines. New Jersey's prices declined last summer by a notable 10 percent from a year earlier, while Pennsylvania recorded a 5.1 percent decline.[11] New York's strong summer price increases were actually tempered because some utilities in the state still have significant fixed long-term contracts – though soon expiring – and because most utilities are not yet able to pass on increased wholesale costs to the final customer.

Several factors are causing these electric price increases. In restructuring the industry, deregulation allowed prices to fluctuate according to conditions of demand and supply. This has occurred, however, at a time when New York faces rising demand and restricted supply. Economic growth has brought steadily increasing electric demand while New York faces shortages of generating facilities. New owners of the State's power plants require a faster return on their investments in this unregulated market.[12] In addition, rising fuel and natural gas prices used for electric generation; transmission bottlenecks particularly downstate in New York City and Long Island; and a flawed wholesale market have pushed electric prices up.

[11] *Electric Power Monthly*, Energy Information Administration, August-November, 1998-2000. For additional detail, see Table C in the Appendix.

[12] Thomas S. Richards, Chairman of the Board, President and Chief Executive Officer RGS Energy Group, Inc., *What's Happened With This Deregulation Thing and Energy Prices?*, 2000.

As a result, prices have risen most dramatically downstate. Con Edison is the first of the utilities allowed to pass on increased wholesale costs directly to the customer. Con Edison estimated that the June 2000 bill for an average residential customer rose 43 percent from a year earlier.[13] Prices can be expected to rise around the state as other utilities are allowed to pass on higher wholesale prices to their customers.

While the objectives of a competitive electric energy marketplace remain laudable, only effective policies will lead to real competition. Policies that do not result in real competition and real reductions in relative energy costs across the State will compound the State's economic competitiveness problem in the long run.

Importance of Electricity and Deregulation's Promised Benefits

The effects of excessively high electricity ripple through every business and household in the State, causing shifts in spending.

In New York's upstate region, high electric costs have been one factor contributing to low economic growth.[14] Forty-seven percent of upstate small businesses ranked energy costs as one of the most significant barriers to growth in a survey conducted by the Buffalo Branch of the Federal Reserve Bank of New York.[15] To offset higher costs and to be competitive, businesses must achieve savings in other cost areas. This often means reducing labor costs through layoffs, and postponing or canceling investment plans. Manufacturing, a mainstay of the upstate economy, is particularly vulnerable to high electric bills. Over the next year, upstate electric prices are expected to rise, though perhaps less dramatically than the increases this past summer downstate. Yet, the slower growth rates upstate and greater dependence on manufacturing make the upstate economies more vulnerable to such increases. Manufacturing businesses, which are large electric consumers and account for one in six jobs upstate, are likely to be disproportionately impacted. Overall, the upstate areas grew much more slowly than the downstate region throughout the 1990s. In 2000, total employment grew by 2.2 percent downstate while it grew by only 1.5 percent upstate. But what is more worrisome is that the gap appears to be widening. As employment downstate slowed from 2.9 percent in 1999 to 2.2 percent in 2000, upstate the slowing was more pronounced from 2.2 percent to

[13] William Harkins, Vice President of Energy Management, Consolidated Edison Company of New York, Inc., *New York City's Electric Supply Needs*, January 2001.

[14] For examples, see *The Electric Industry in New York*, New York State Assembly Committee on Energy, October 1997; *The Hidden Tax in New York's Energy Bills*, The Public Policy Institute, February 2000.

[15] Richard Dietz and Ramon Garcia, *The Regional Economy*, Federal Reserve Bank of New York, Winter 2001.

1.5 percent, nearly a one-third decline in the growth rate. It now represents only two thirds of the downstate growth rate. On the consumer side, increased prices may be harder for upstate households to absorb since average salaries are lower than downstate. While news reports and policy makers discuss the effect of higher electric prices and rolling black outs on California's strong economy, the impact of high prices on more vulnerable economic regions in New York needs to be kept in mind.

High electric bills also impact households, particularly low- and fixed-income households. This is especially true in New York City, where the cost of living and the price of electricity are considerably higher than other regions of the country and state. For individuals on low-or fixed-incomes, higher prices for electricity may mean foregoing other basic necessities in order to pay for increased electric costs.[16] The three million low-income households in New York State that are eligible for energy assistance spend as much as 35 percent of their incomes on energy, compared to three-to-eight percent for the general population.[17]

State policy makers and large businesses welcomed the electric industry's transition from a regulated monopoly to one that would, in theory, operate in a competitive marketplace. New York businesses, particularly large industrial customers, have said that high-energy prices have been a major cause of slow economic growth in upstate New York and that unless these costs are reduced, businesses will move to lower energy-cost locations. In a survey conducted by the Business Council of New York State released in October 2000, 92.5 percent of businesses categorized New York's energy costs as high.[18] In response to these concerns, a number of utility and government programs have attempted to reduce the cost of electricity for large customers. The New York State Power Authority and Investor Owned Utilities offer a number of programs with preferential rate treatment for business customers.[19]

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[16] See the testimony of Gerald A. Norlander before New York State Assembly Speaker Sheldon Silver and the Committees on Energy, Ways and Means, Corporations, Authorities, & Commissions, and Environmental Conservation and Consumer Affairs, August 2, 2000.

[17] New York State Energy Research and Development Authority, *A Three-Year Plan for Energy Investment 2000-2003*, September 2000.

[18] "Survey: Business Council Members See Improvement—And Room For More—In New York's Business Climate, Taxes," Business Council of New York State, Inc., October 17, 2000.

[19] The New York Power Authority (NYPA) offers several programs that lower electric bills for business. The "Power for Jobs" program provides three-year low-cost electricity contracts to large and small businesses and non-profits. The Economic Development Program (EDP) offers long-term 5- 15-year low-priced contracts. It also provides Niagara hydropower for new business expansions that is sold through Niagara Mohawk Power Corporation in Western New York. NYPA also provides low-cost power through its Municipal and Rural Cooperative Economic Development Program, which is also used by businesses in some parts of the state.

Implications of Deregulation for State and Local Government

Deregulation of the electric markets has significant implications for both state and local governments. For state government, moving from a regulated to a deregulated market in a core industry ultimately moves the issue beyond economic and fiscal calculations. Skillful management of the process will not only enhance business and consumer confidence in the market system, but also will have critical implications for citizen and community confidence in state government. For the foreseeable future, questions of governance and economy are inextricably linked.

The roles of key government agencies including the Public Service Commission (PSC), Department of Environmental Conservation (DEC), New York State Energy and Research Development Agency (NYSERDA) and the New York Power Authority (NYPA) are being reshaped by the deregulation process. These agencies play significant parts in the pricing of electricity, location of power plants, resolution of environmental issues, and the establishment and implementation of energy conservation initiatives.

Responsibility for much of these key functions fell with the State Energy Office, prior to its elimination as called for in the 1995 Executive Budget. As required by the Legislature, the Office developed an annual energy plan to assess future energy supplies and sources; administered energy and environmental efficiency programs; and directed energy-related emergency responses. Low-interest loan and grant programs handled by the Office helped businesses and households lower electricity consumption and costs. During hearings regarding the proposed elimination of the Office, held by the State Assembly's Energy Committee, testimony of officials with the U.S. Department of Energy and the National Conference of State Legislatures and others, recommended against dispersing the duties of the office to various State entities. It might have been beneficial to have a single agency coordinating all aspects of State energy policy as deregulation moved ahead.

As deregulation proceeds, local governments are faced with their own challenges, many of which have not yet been acknowledged. Market changes in the electricity industry will require that local governments forge new relationships with new stakeholders in the industry. The sale of existing power plants, for example, and siting of new ones will result in increased revenues and economic activity for some communities. Other communities, however, will lose revenue and economic activity.

Large urban areas, suburban communities and rural areas all are faced with important planning decisions. The degree to which electricity deregulation affects the quality of life in communities across the State may well be the longest-lasting measure of its success or failure. At this juncture, however, the quality-of-life issue has received no serious statewide attention. Community organizations and

environmental groups that raise these issues are assailed as impediments to progress largely because there is no existing forum to discuss the questions.[20] How many neighborhoods in New York City will be asked to accept temporary or permanent generation facilities? Will electricity deregulation enable residents of Westchester County to consider alternatives to the Indian Point nuclear power plant? What are the choices facing rural communities as companies approach them with plans for new pipelines, power plants, or alternative energy generation facilities?

There was no initial planning at the state level to address the impact of deregulation on communities or local governments – particularly on the tax base. In response to local concerns, the Legislature took action and commissioned a study to assess the state and local tax implications of deregulation.[21] The report identified 138 generating plants that may be affected by deregulation, and 98 that had been included in utility asset divestiture plans at the time of the study.[22] The report called for close monitoring and voiced concern about the potential problems created by the sale of these new facilities.[23]

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[20] Kirk Johnson, "Debate on Need for New Power Plants Ignores Conservation," *New York Times,* September 26, 2000; Kirk Johnson, "The Energy Rush – A Special Report: Promise and Peril in New York Power Plans," *New York Times,* August 14, 2000.

[21] Chapter 239 of the Laws of 1999, sponsored by Assemblymembers Tonko, Luster, Schimminger, Colman, Gromack, Canestrari, Galef, Gunther, and Senators Wright, Rath, Leibell, Bonacic, Hannon, Larkin, Marchi, Maziarz, McGee, Meier, Seward, and Volker.

[22] For more detail see Chart A in the Appendix.

[23] *Divestiture of Electricity Generating Plants: Property Tax Implications*, New York State Office of Real Property Services, State Assessment Services, January 2000.

New York State Electricity Deregulation
Problems from the Start

Rationale for Deregulation

Technological changes along with a national trend toward relying on the free market to lower prices and improve services in major industries drove the push for energy deregulation. Previous electric generation technologies were expensive and inefficient, and required high capital investments to cover start-up costs. Smaller, more efficient, gas-fired turbines with less harmful environmental effects fostered competition in electric generation, making deregulation more desirable to business, environmental and community interests. Technological improvement brought the prospect of new, upgraded power plants, and newly deregulated markets promised new investment opportunities in power generation.

Deregulation of the electric industry followed similar actions in natural gas, telecommunications and transportation (trucking and airlines). Proponents argued that regulatory changes that heightened competition would lower prices and spur innovation. Businesses in the industry would be inspired by competitive markets to make enhanced investment decisions and creative improvements to operations. As a result, consumers, including large industrial customers, would benefit from choice and lower prices.

Notwithstanding benefits realized in some other industries, negotiators in the New York State electric deregulation proceedings recognized that the uniqueness of electricity as a commodity could be a barrier to implementing competition policies in the industry. In the Competitive Opportunities Case, the regulators wrote: "...because of the nature of the commodity, electricity has reliability considerations different from gas and telecommunications services. Electricity has specific physical constraints regarding the need to instantaneously balance load and generation, while providing ready reserves. Storage of electricity is impractical at this time. The complex nature of the electric system from a technical viewpoint is different from other industries."[24]

Industry Structure

With deregulation, electric industries in states throughout the nation are being transformed from a "regulated monopoly" system where prices were set based on cost, to a "partially-competitive, partially-regulated" system where competitive markets play an increased role in establishing prices.

[24] Case 94-E-0952, *In the Matter of Competitive Opportunities, Recommended Decision*, New York State Public Service Commission, December 1995.

Electricity can be broken down into four basic functions: (1) production or generation from power plants; (2) long-distance transmission over high-voltage transmission lines; (3) local delivery over low-voltage lines; and (4) retail services such as meter, billing, and energy efficiency (See Chart B in Appendix). The existing structure allowed utility companies in New York – Con Edison, Niagara Mohawk, Rochester Gas & Electric and others – to own power plants and the infrastructure necessary to distribute electricity to end-users. Under deregulation, production and retail services were opened to competition, and transmission and delivery remain monopoly-regulated functions.

Most utilities were, and remain, investor-owned, "for profit" companies, though some are publicly owned non-profit corporations. Subject to regulation in the public interest, each utility company was granted a service area monopoly. Prices were set based on cost -- cost of production plus reasonable profit. The utilities were required to provide access to electricity for all customers in their service area and to charge reasonable and comparable prices to similar classifications of consumers (residential, commercial, industrial).

Transmission and distribution of electricity takes place over a "single" complex transmission grid and distribution system, which the utility companies in each service area still control. In New York, the flow of electricity was controlled by the New York Power Pool, which also was responsible for ensuring reliability. Under deregulation – in New York and other states – these functions are handled by an Independent System Operator. These non-profit entities are governed by the Federal Energy Regulatory Commission (FERC), and run the wholesale markets where power plant owners sell electricity.

Continuing to be regulated, the utility companies are required to provide open access to all suppliers and retailers. Retail competition has been phased in, allowing customers to purchase their electricity either from their local utility or an alternate energy service company. Typically these latter companies are purely retail "stores"; they do not physically generate or transmit electricity. To date, most customers still buy their electricity from their local utility.

Federal Policy

As a result of the "Oil Shocks" of the 1970's, the Federal government began to pursue polices that would enhance supply and stabilize prices in the energy sector. The Public Utilities Regulatory Act of 1978 (PURPA), which led to the development of an independent power industry, introduced competition into the electric industry. In 1992, the Federal Energy Policy Act (EPACT) furthered the move toward competition by allowing electric producers to petition FERC for access to the electric transmission system. The Act permitted competition in the wholesale electric market and power generation by allowing unregulated operators to own power plants. It was largely responsible for industry-restructuring initiatives in states throughout the nation.

In 1996, FERC issued Orders 888 and 889, furthering the transition of the industry by allowing unregulated operators access to the utility-owned transmission networks.[25] Recent developments at the federal level have focused on repealing or amending PURPA and the 1935 Public Utilities Holding Company Act (PUHCA), and on consideration of major restructuring legislation. For the most part, opponents of PURPA and PUHCA, which came into being to enhance energy supply and limit the monopoly power of investor-owned utilities, argue that they are outdated and should be repealed. Supporters say that the transition to competition in the industry is still in its early stages and that the laws are still relevant to the smooth operation of the industry.

State Policy

The New York State Public Service Commission (PSC) introduced competitive elements into its regulations in the late 1980's.[26] In 1993 it established the Competitive Opportunities case, which began a review process of issues related to the transition to competition in the gas and electric industries. In a 1996 decision the PSC accelerated competition in the electric industry by ordering competition in the wholesale market in 1997, and the introduction of retail access for consumers in early 1998. [27]

Under competition, the PSC envisioned competition in generation, rate reductions, consumer choice for electric service, retention of a safety net for electric services access ("provider of last resort"), retention of fees/mechanism for funding of environmental and low-income programs, and the establishment of an independent exchange mechanism to administer the wholesale market.

The PSC ordered five of the state's seven investor owned utilities (IOU's) -- Consolidated Edison of New York Inc., Orange and Rockland Utilities Inc., New York State Electric and Gas Corporation, Central Hudson Gas and Electric Company, and Rochester Gas and Electric Corporation -- to file rate reduction and restructuring plans.[28] As a result of the PSC order, IOU's filed and the PSC

[25] Order No. 888 opened wholesale power sales to competition, requiring companies to file nondiscriminatory open access tariffs that offered the same prices and services to non-utility companies as for themselves. Order 889 also requires companies with transmission facilities to provide information on capacity to energy companies.

[26] The history of New York State's regulation of the electric industry has recently been recounted in *Interim Pricing Report on New York State's Independent System Operator*, New York State Department of Public Service, December 2000.

[27] Case 94-E-0952, *Opinion and Order Regarding Competitive Opportunities for Electric Service*, Opinion No.96-12, New York State Public Service Commission, May 20, 1996.

[28] With regard to the other IOUs: Niagara Mohawk Power Corporation had previously filed a restructuring plan, and Long Island Lighting Company was negotiating a buyout of its assets by the Long Island Power Authority. Niagara Mohawk Power Corporation filed its plan to address

approved individual restructuring plans for these companies with certain elements unique to each. Among the features of the PSC-approved settlements with New York State utilities are:

- Restructured IOUs, separating the electric generation from distribution and transmission components through divestment of IOU's electric production assets (power plants);
- Phased-in opening of retail sector to competition—consumers allowed to purchase electricity from either their utility or some other supplier;
- Reduced electric rates covering the utilities' transmission and distribution services, especially for large industrial and commercial customers in order to foster economic development. Guaranteed recovery of past IOU investment through electric rates; and,
- Creation of a new funding stream, System Benefits Charge (SBC) for public policy programs because they were not likely to be addressed sufficiently by competitive retail markets (discussed in detail below).

Unlike the other utility agreements, Consolidated Edison negotiated a provision that allowed the utility serving New York City and its northern suburbs to pass on to customers the increased prices they paid for electricity on the wholesale market. This pass-through provision allowed for the 30-40 percent increase in Con Ed customers' bills this summer despite decreases in the regulated rates charged by the utility for the delivery of electricity.[29]

System Benefits Charge (SBC)

Prior to deregulation, investor-owned utilities made substantial investments in energy efficiency and other public benefit programs that might have been lost in an electricity marketplace driven solely by competition and profits. In its 1996 Competitive Opportunities Order, the Public Service Commission established a mechanism to encourage energy efficiency, research and development, and low-income programs. This system benefits charge (SBC), set at the amount utilities already were investing, was built into transmission rates charged to users of the power distribution system – virtually all businesses and households across New York State. Intended to remain in effect during the transition to retail competition, the SBC was expected to be complemented by innovative conservation programs developed by energy service companies, including demand-side

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poor financial conditions related to its Independent Power Purchase (IPP) contracts. By 1995 these payments, amounting to about $1 billion annually, were threatening the financial viability of the company. Meanwhile, Long Island Lighting Company was entangled with the Shoreham issue--cost escalation of the Shoreham nuclear plant and resulting massive increase in electric rates on Long Island. See Letter from Comptroller H. Carl McCall to LIPA Chairman Richard Kessel, June 17, 1997.

[29] "Con Edison Launches Effort To Help Residents And Businesses With Higher Electricity Bills," Con Ed Press Release, August 17, 2000.

management initiatives.[30]

In 1998, following negotiations presided over by an Administrative Law Judge, the PSC refined the definition of the SBC to provide funding only for:

- "PSC-approved energy efficiency programs and services;
- PSC-approved public benefit, research, development and demonstration projects related to energy service, generation or energy storage, the environment (including monitoring and assessment), and renewables;
- PSC-approved low-income energy efficiency and energy management pilot programs; and
- environmental protection programs that go beyond compliance with law or permit requirements, as deemed necessary, including programs designed to monitor and mitigate environmental impacts of electric industry restructuring."

Specific SBC funding levels were to be determined in individual rate cases for each utility, subject to a cap designed to avoid a disproportionate burden on ratepayers in any specific region of the State. SBC proceeds would temporarily fund ongoing utility initiatives, but emphasis would be placed on those with statewide implications. With oversight provided by the Public Service Commission, the New York State Energy Research and Development Authority (NYSERDA) was named administrator of SBC funds. The three–year-period established for the implementation of SBC-funded programs was set to expire July 1, 2001.[31]

On January 26, 2001, the PSC approved a five-year extension of the SBC, increasing collections by $60 million annually and adjusting individual utility SBC rates to a uniform statewide rate. During the public comment period, while recommendations ranged from eliminating the SBC to extending it for ten years, numerous parties raised questions about the effectiveness of SBC-funded programs. An Advisory Group of utility experts, energy consultants, and public interest groups has recommended improvements in program operations to help evaluate the effectiveness of SBC-funded initiatives.[32]

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[30] Case No. 94-E0952 et. al, *Opinion and Order Regarding Competitive Opportunities for Electric Service*, Opinion No.96-12, New York State Public Service Commission.

[31] Case No. 94-E-0952, *Opinion and Order Concerning System Benefits Charge Issues*, Opinion No. 98-3, New York State Public Service Commission, January 30, 1998.

[32] Case No. 94-E-0952*, Order Continuing and Expanding the System Benefits Charge for Public Benefit Programs*, New York State Public Service Commission, January 26,2001.

Effects of New York State Policy

The effects of the PSC agreements with investor-owned utilities may continue to pose problems to the State's economy and consumers.

First, reductions in the rates charged for the services that regulated utilities continue to provide have not narrowed the differences between final electric prices in New York and other states.

Second, rate reductions were not distributed equitably across customer classes. Households received the lowest rate reductions. In New York City, where consumers pay the highest electric bills in the nation, prices have actually increased over the last year.

Third, the agreements failed to create conditions necessary for retail competition, which has been promoted as key to reducing electric prices at the retail level. Retail choice was a central element of the state's deregulation policy. However, retail access is limited for most consumers today. The percent of electric load switched to non-utility electric companies or Energy Service Companies (ESCO's) by residential customers averaged about 3 percent. ESCO penetration of the non-residential market was significantly higher, however, because of purchases by large firms.

Fourth, the schedule for Investor Owned Utilities' divestment of electric generation assets moved too quickly. Bringing in new owners with new investment needs at a time when supply was constrained gave them the strong market leverage that contributed to price increases. In contrast, other states have phased in divestment, and it has tempered their price volatility and supply problems. New York utilities have sold most of their generating plants and must purchase power from producers not regulated by the PSC.

Fifth, given the shortage of electric supply, demand-reducing programs would have contributed significantly to closing the gap between supply and demand. Notwithstanding the fact that effects of these programs are long-term and not an immediate solution to the supply-demand gap, NYSERDA data indicate that $71.8 million in investment of System Benefits Charge funds from July 1998 through June 2000, will result in 486 million kwh in annual electric savings, or $54 million annually in fuel bills. The expenditure also reduced air pollution totaling hundreds of tons annually.[33]

Recently the PSC approved an increase in SBC funds to $150 million over five years, from $110 million in 2000, to support energy efficiency, research and development, and support for low-income consumers. Although the initiative

[33] *PSC Staff Proposal for the Extension, with Modifications, of System Benefits Charge—Funded Public Benefit Programs*, New York State Department of Public Service, September 29, 2000.

reverses a declining trend of funding for such programs, it is still below the $286 million that was spent in 1992. In 2000, SBC funds totaled $110 million, which on a per capita basis was three times lower than conservation investments in Massachusetts, New Jersey and Connecticut. The move by the PSC to increase the System Benefits Charge may provide additional relief, but the unexpected cost to the business community was not part of the original deregulation discussions.[34] In addition, careful monitoring is necessary to ensure that these investments pay off.[35]

Finally, the agreements driving deregulation lacked an overall plan from the beginning. Such a plan would have been the appropriate place to address questions related to the best long- and short-term mix of statewide electric strategies. What is the potential for energy conservation and demand-side management, and what role will new and repowered generation facilities play? It would also have been the place to develop a communications system to educate people about their options and responsibilities in regard to the complicated changes that are occurring. The State should be clear about the realistic prospects for lower electricity prices, what consumers get in return if prices must rise, and the potential impact of conservation efforts.

Flawed Public Participation

During the negotiation process that led to a transformed regulatory structure, substantive criticisms were made, especially about the flawed public participation process and the qualifications of those in charge of the Public Service Commission.[36] Critics warned of the new regulatory structure's weakness in seeming to favor the utility industry at the expense of the State economy's competitiveness.[37] In addition, questions were raised about conflicts of interest and the integrity of the decision-making process.

There was little consensus among participants in PSC proceedings. Industrial and large customers, with an eye toward lower prices, argued for the introduction of retail competition before wholesale competition. Residential and small businesses were generally dubious about the benefits of retail access. The American Association of Retired Persons (AARP) expressed concern about the

[34] The Assembly's comprehensive deregulation proposal would have provided money for energy conservation programs through a fund created by the sale of New York Power Authority assets. See: *Competition Plus, Energy 2000: The NYS Assembly's Plan to Cut Electricity Rates and Create Jobs*, June 1999.

[35] *Response to Department of Public Service Staff's Proposal for the Extension, with Modifications, of System Benefits Charge-funded Public Benefit Programs*, Clean Energy Advocates, November 20, 2000.

[36] "End Upheaval at PSC; Name a Pro, Not a Hack," *Newsday,* May 20, 1996.

[37] "Getting Power In Deregulation," *Crain's New York Business,* May 20, 1996.

impact retail competition would have on small businesses and low-income groups. The Consumer Protection Board argued for speedy introduction of retail competition.

The Utility Workers of America, representing Con Edison workers, also questioned potential benefits from competition.

From the utility perspective, the Energy Association (EA) expressed concern about the decision on stranded cost recovery and the benefits that would actually result from retail choice. The Association also challenged PSC authority over divestiture issues, and the timing of PSC adoption of a competitive model. EA felt that a number of issues needed to be resolved beforehand.

Among the power producers, both the state-run New York Power Authority and the Independent Power Producers (IPP) favored the competition model ordered by the PSC. Energy companies, seeking to compete in the new market, urged "date-certain" retail competition, arguing that a staggered schedule would dampen competition.

Environmentalists, represented by the Public Interest Interveners, urged the adoption of the concept of the System Benefits Charge (SBC) to be used for conservation programs. They also expressed caution about the retail market.[38]

A similar lack of consensus occurred in the process leading to individual utility-restructuring settlements. For example, in the Consolidated Edison restructuring case, more parties opposed the plan than supported it.[39]

Unlike many other states, deregulation in New York was not legislated, despite extensive work on the issue by the Legislature. The New York State Assembly approached deregulation through a comprehensive electric restructuring legislative bill known as Competition Plus. Competition Plus proposed: a rate freeze; divestiture of non-hydro and transmission facilities by 2003; and full retail competition by 2000. The Assembly bill did not guarantee full recovery of past

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[38] Case No. 94-E-0952, *Opinion and Order Regarding Competitive Opportunities for Electric Service,* Opinion No.96-12, New York State Public Service Commission.

[39] **Signatories:** Con Ed, Department of Public Service staff, the NYS Department of Economic Development (DED), the Utility Workers Union of America, AFL-CIO, local 1-2 (Utility Workers), Owners committee on Electric Rates (Owners Committee), and Cogen Technologies Linden Venture L.P. (Cogen). **Opposition:** Among others, the Office of the Attorney General, American Association of Retired Persons (AARP), New York State Consumer Protection Board (CPB), Independent Power Producers of New York, New York City, Westchester County, New York Power Authority (NYPA), New York City Transit Authority (MTA), Retail Council of New York, National Association of Energy Service Companies, individual energy service companies such as Enron, and large scale power consumers such as Prudential Securities. Case 96-E-0897, *In the Matter of Consolidated Edison Company of New York, Inc.'s Plans, etc., Recommended Decision,* New York State Public Service Commission, June 1997.

IOU investment expenditures, and mitigated the burden this cost recovery would have had on ratepayers.

The Administration did propose legislation on one deregulation-related issue. The Administration's securitization bill, introduced in different forms, sought to allow utilities to issue bonds and slowly recover costs of past investments ("stranded costs") through a designated portion of future customer bill payments.

The Assembly bill also would have established a Power Authority Restructuring Board within the New York Power Authority. The Board would have prepared a restructuring plan and approved all payments from an Energy 2000 Fund created from the proceeds of sales of NYPA assets. The estimated $2 billion fund would have been used to provide loan guarantees for private sector refinancing of power producers' debt, reducing electric rates, promoting energy efficiency, research and development, and alleviating labor force dislocation. The entity also would have assisted in the development of an electric commodity exchange.[40]

In releasing an audit of NYPA in 1996, Comptroller McCall also questioned the role of NYPA in a deregulated market and called for an energy plan:

> "NYPA was created in a different era. There was no competition, and NYPA's functions evolved into a patchwork of utility operations. This is a new era, and there are questions that must be asked about the role of NYPA and whether it should compete with other power generators and investor-owned utilities. The Governor and Legislature need to take a hard look at the directions of this industry and reassess what the State should own, what services it should provide, and what role it should play in a competitive electric business. The critical energy issue is how to best use NYPA's low-cost electricity to help reduce the burden of electricity cost for New Yorkers and New York businesses. New York must have a plan for the future."[41]

The New York State Senate has recently offered a number of proposals to offset the impact of high home-heating and electricity prices. The proposals promise some relief and include: eliminating the Gross Receipts Tax for residential consumers; sales tax exemption for energy efficiency products (with provision to hold local governments harmless for revenue losses); a tax credit for home energy assistance; the elimination of the petroleum business tax. The proposals,

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[40] Sheldon Silver and Paul B. Tonko, *Competition Plus, Energy 2000: The NYS Assembly's Plan to Cut electricity Rates and Create Jobs*, New York State Assembly, June 1999. Sheldon Silver and Paul B. Tonko, *Shedding Light on New York's Surging Electricity Prices: A Briefing Paper on Moving to Competition in the Electric Industry*, New York State Assembly, March 1997.

[41] "McCall Finds Significant Risks for NYPA's Future," New York State Comptroller H. Carl McCall Press Release, September 24, 1996, see also Report 95-S-110 at *http://www.osc.state.ny.us*

however, do not offer any suggestions regarding the larger issues of electricity deregulation.[42]

The NYSIO and the Wholesale Electric Market

Last summer's price volatility originated in the wholesale market. A non-profit entity, the New York Independent System Operator (NYISO) is central to the operation of the wholesale market structure. The NYISO – regulated by the Federal Energy Regulatory Commission – acts as an exchange mechanism similar in function to other commodity exchanges. The NYISO manages the purchase of wholesale electric power from producers, and its sale and transmission to purchasers—typically Investor Owned Utilities and large-scale consumers. However, the transmission facilities are still owned and operated by the New York Power Authority, the Long Island Power Authority, and Investor Owned Utilities (Consolidated Edison, Niagara Mohawk, New York Electric and Gas, Rochester Electric and Gas, etc).

In envisioning Independent System Operators (ISOs) in a deregulated market, FERC sought to create a mechanism that would provide all wholesale producers with equal access to the transmission system, thus strengthening the competitive environment for electricity. In addition, the NYISO has been charged with supervising market transactions in the wholesale market, and ensuring the reliability of the State's electric system.

To ensure reliability, ISOs must coordinate the supply (generation and transmission of electricity in New York State) with demand for electricity – making sure that the available supply of electricity is equal to the peak demand in the system. Reliability standards, which are established by national and regional authorities, and in New York by the New York State Reliability Council (NYSRC) guide ISO operations. In New York, to ensure that supply of electricity meets demand, NYISO and NYSRC must establish the volume of electricity supply that utilities and other companies buy each year for sale to businesses and residents.

In its role as a commodity exchange, the NYISO market accounts for about fifty percent of the electric power bought and sold in New York's electric market. The rest of the market is accounted for by long-term, bilateral contracts between utilities (who no longer produce electricity) and power generators.

When demand for electricity is at peak, higher-priced electric generators must be brought into service to meet the demand. This increases the price producers charge for their electricity. Initially, the price increases are gradual, reflecting the existence of enough supply. As demand increases in a constrained market, as it

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[42] "Senate Tax Cuts Aim to Trim Heating Bills," New York State Senate Press Release, January 9, 2001.

did last summer in New York City, the ISO must access even more expensive generation capacity to meet demand – thereby causing a price spike. When the demand is reduced, prices move in the opposite direction because the ISO need not access high-priced generation.

The "market clearing-price" is an important concept for understanding current electric prices. When the ISO needs to fulfill electric demand, it reviews bids by generators to meet electric needs. Based on these bids and other technical factors, the ISO selects a market clearing-price for the electricity. Under competition, this is the price at which sellers are willing to sell and buyers are willing to buy. In most competitive markets, when supply is not an issue, prices are relatively stable and buyers typically pay the lowest price (for similar products). This is not true in the electric wholesale market, where supply is an issue. The clearing-price in this market is the highest price bid by a generator willing to supply electric power. All suppliers, even if they were willing to supply electricity at a lower price are paid the higher market clearing-price.[43]

Crain's New York gave a good explanation of this new market mechanism:

> "There is, though, one change that might help bring lower rates to New York. It involves how energy is priced. Currently, power generators make bids each day to supply the state. For example, Generator A offers 7 megawatts at $50 a megawatt hour, and Generator B offers 5 megawatts at $105 and Generator C offers 4 megawatts at $300. The state accepts bids starting at the lowest until it fills its need. But if the state needs 16 megawatts, all the companies get paid the highest price, in this case a $300 megawatt hour."[44]

Deregulation In Other States

To date, there is mixed evidence about whether deregulation's goals of lower prices and guaranteed electric supply for consumers and business can be achieved. It is clear, however that the approach to deregulation pursued by state governments has a substantial impact on its success or failure. While California offers the most dramatic example of failure, other states have begun to show signs of success.

In 1996, California passed legislation to deregulate the electric industry. California's deregulation policy assumed that a competitive marketplace for

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[43] *Interim Pricing Report on New York State's Independent System Operator,"* New York State Department of Public Service, December 2000. *New York Independent System Operator: How It Works, What It Does, What Its Mission Is,* New York Independent System Operator, 2000.

[44] "How to Hold the Line on Power Prices," *Crain's New York Business,* January 1-7, 2001.

generation would lower prices and lead to a cleaner power generation industry. To achieve these objectives, California restructured the industry just as New York did—utilities sold their generation facilities, the wholesale market was thrown open to competition, and an exchange mechanism was established to facilitate the buying and selling of power for distribution. However, by last summer the state was facing a major electric energy crisis, as wholesale and retail prices rose precipitously and major areas of the state began to experience power shortages.

In the months since, as widely reported by the national media, utilities announced that they were on the verge of bankruptcy. The failure of deregulation was the centerpiece of Governor Davis' report on the State of the State. Controlled blackouts were implemented to avert system failure.

The California Public Service Commission has attributed the crisis to several factors: aging electric production (generation) facilities; virtually no new generation capacity in the last two decades; shift in risk after the restructuring to investors for electricity generation; a booming electric-intensive economy and a growing population; decline in energy programs for purchase of renewable power; environmental regulations that determine siting and construction of new plants; and a flawed wholesale market mechanism that may have contributed to market power manipulation.[45]

Many elements of the crisis in California identified by the California Public Service Commission closely resemble conditions in New York, including a supply problem because of the siting problem, nearly total divestiture of generation plants, and dependence on natural gas, particularly in New York City.

Recent news stories have raised questions about the impact of California's energy crisis on the national economy as well as California's. The deregulation-related risks that New York shares with California pose a more serious threat to the New York State economy, which is weaker than California's. Between 1996 and 1999, for example, California's employment increased by 9.6 percent, compared to an increase of 6.4 percent for New York State as a whole and a 4.5 percent increase for the upstate region. The economic disparity is likely to continue, especially if the national economy continues to slow down.

In addition to economic strength, New York is different from California in terms of structure and reliance on the wholesale market. In California, 90 percent of

[45] California Public Service Commission President Loretta Lynch and Electricity Oversight Board Chairman Michael Kahn, *Summer 2000 Report to Governor Davis Regarding California's Electric System*, August 2, 2000. An empirical investigation of the California market concluded that market power was a factor in price increases in California. See Servan Borenstein, James Bushnell, and Frank Wolak, *Diagnosing Market Power in California's Restructuring Wholesale Electricity Market,* NBER Working Paper Series, September 2000. See also, *Utilities: Power – Electric Utilities,* Goldman Sachs Global Equity Research, November 15, 2000.

power purchases are made on the spot market, compared to 50 percent in New York, where utilities rely more heavily on long term, bilateral agreements with power producers.

U.S. Senator Charles E. Schumer, who has closely followed and regularly commented on deregulation's developments, has called upon the FERC to "use its experience with California to investigate New York's energy market, diagnose any problems and outline specific steps necessary to prevent a California-like crisis." Senator Schumer's formal request followed a meeting with FERC Chairman James J. Hoecker on January 17, 2001 to discuss similarities between the state energy markets in New York and California.[46]

In contrast to California, states like Pennsylvania, Texas and Wisconsin are considered to have pursued deregulation of electricity markets more sensibly with greater evidence of potential success. All three states differ from both California and New York by their focus on increasing supply early in the process toward a deregulated marketplace.

Since 1995 Texas has added 22 new plants, and another 15 are currently under construction and expected to come on line by 2002 albeit under differing environmental conditions and regulations from New York. Wisconsin has made investments that will double the capacity of its transmission grid and enable power producers in neighboring states to have access to the Wisconsin electricity market. While both of these States differ substantially from New York, lessons can be learned from our neighboring state of Pennsylvania where capacity is expected to grow by 65 percent over the next four years.[47]

As evidenced by the change in average electric prices noted in this report, Pennsylvania is widely viewed as successfully moving toward an electricity market where competition results in lower prices. The comprehensive, methodical State plan for deregulation started in 1996 and called for substantial government involvement in the market throughout the process. In return for a freeze in electric rates at the 1997 level until 2006, Pennsylvania protected utilities against losses from their older plants. The choice of new companies on the retail side was aggressively advertised by the State, helping new ESCOs appear in the best light to consumers who compared them to their traditional utilities. A State report estimates ratepayers have saved about $2.84 billion in energy costs over the last three years.[48]

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[46] "Schumer To FERC: Examine NY Energy Market To Avert California-Like Crisis; Schumer Meets With FERC Chairman Hoecker, Asks Federal Agency to Conduct Analysis of New York Wholesale Energy Market," New York's Senator Charles E. Schumer Press Release, January 17, 2001

[47] "California's Dim Bulbs," *Wall Street Journal*, January 16, 2001.

[48] Neela Banerjee, "A Dwindling Faith In Deregulation; New Ways to Harness Electricity," *New York Times*, September 15, 2000.

Industry experts also credit a more successful transition toward deregulation to the independent system operator created to handle the Pennsylvania, New Jersey and Maryland (PJM) wholesale market. A Federal Energy Regulatory Commission report on the markets issued in November 2000, described the three Northeast markets (PJM, NYISO and New England ISO) as "extremely complex" and at various states of development. PJM was given the highest marks of the three for market design and system operations. The NYISO received lower marks from staff, which noted that "market inefficiencies continue to threaten the overall competitiveness of NYISO's markets."[49]

[49] *Staff Report to the Federal Energy Regulatory Commission on the Bulk Power Markets in the United States: Investigation of Bulk Power Markets – Northeast Region*, Federal Energy Regulatory Commission, November 1, 2000.

Post-Deregulation Developments in New York

The impact of deregulating under conditions of supply constraints, rising demand, and inadequate longer-term plans for expanding capacity and/or reducing demand are showing up in rising prices for electricity in New York State. As noted earlier in this report, New York's average monthly electric prices from January through August rose 8.7 percent above their 1999 level. Many other states' prices fell during the same period.

Why Prices Are Still High

New York City faces particularly difficult conditions of rising electric demand and very restricted supply. The City's current generating capacity falls short of estimated peak demand and the gap will likely widen without significant investment in new capacity. According to a recent Con Edison report, economic growth, population growth and higher intensity of electric usage boosted demand 1,400 MW over the past decade, yet no new generation capacity was built. Last summer, the City faced a shortfall in "in-city" electric supply of around 300 megawatts. Over the next five years, NYC will need between 2000–3000 MW of new electric supply, requiring a *24-36 percent expansion* of capacity. The additional supply is needed for three reasons: 700-900 MW to meet an expected demand growth of 1.5 percent per year; 800-1200 MW to stabilize prices in the newly deregulated market, and an additional 500-900 MW to replace old generating facilities.[50]

This past summer some of the most severe difficulties with deregulation surfaced, when demand peaked and the wholesale market showed great price volatility. New York City was the most adversely affected region in the state. Last summer residents and businesses in the City experienced a 30–40 percent price increase for electricity, despite the reductions in transmission and distribution rates that Consolidated Edison implemented as part of its restructuring plan. According to Con Edison, the average residential customer's electricity bills jumped 43 percent in June 2000 from a year earlier. In July, the average residential customer bill rose to $73.55, a 34 percent increase from May 2000.

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[50] Due to capacity limitations of the transmission system feeding into New York City, 80 percent of the power must be generated inside the City's boundaries to maintain reliability. Last summer the City needed 8,272 megawatts to be generated within the city to meet peak demand of 10,340 MW. However, total in-City capacity amounted only to 7,957, leaving a 315 MW shortfall. Total supply came from Con Edison (1495MW), NYPA (973MW) and other generating companies such as KeySpan, NRG, etc, (5,489MW). William Harkins, Vice President of Energy Management, Consolidated Edison Company of New York, Inc., *New York City's Electric Supply Needs*, January 2001.

For a business concern perspective see New York Building Congress, *A Matter of Urgency: New York City's Electric Supply Needs: A Policy Framework*, January 2001.

The pattern is similar for both small and larger commercial customers. From May to July 2000, the average monthly bill for small commercial customers went from $1,575 to $2,456, a 56 percent increase. [51]

Against this backdrop of higher demand and restricted supply, industry restructuring played a key role in the price increases this past summer. Under regulation, Consolidated Edison owned and managed the generation, transmission, and distribution facilities. The electric rates the company charged customers were regulated by the Public Service Commission, and were based on the cost of providing all of these services. Under the new deregulated scheme, Consolidated Edison does not own *most of the* generation facilities, and therefore must purchase electricity from an unregulated market managed by the NYSIO. As described earlier, electric producers offer to sell their power at prices that reflect their perceptions of supply and demand conditions in the New York State market.

Since the PSC allows Consolidated Edison to pass on the increase in the cost of power purchases to consumers, New York consumers experienced a huge increase in their monthly bill. Consolidated Edison, in its petition to FERC, has argued that only about 50 percent of the price increase in wholesale marketing can be attributable to higher gas prices. It attributed the rest of the increase to loopholes in the bidding process, and market power abuse.[52] Recently, Consolidated Edison concluded a new agreement with the PSC, extending the restructuring plan and including a new round of rate cuts through reductions in the distribution charge.

The PSC's staff report on the NYISO calls for adequate monitoring and strict measures to prevent market power abuse. The report also concluded that there are problems with the rules and procedures governing the wholesale market. These include software design problems and generator bidding practices.[53] Meanwhile, in his State of the State message the Governor called for increased state level authority to enforce prohibitions against market power abuse. The initiative requires federal legislation and will be difficult to obtain.

Why are electric prices still high? This review, which included discussions with industry officials and policy makers, suggests that there are five major reasons for the trend: (1) an increase in fuel and natural gas prices used for electric generation, (2) higher demand for electricity as a result of economic growth, (3) a

[51] New York State Department of Public Service.

[52] *Motion to Intervene, Answer and Comments of Consolidated Edison Company of New York, Inc. And Orange and Rockland Utilities, Inc*. Federal Energy Regulatory Commission, Docket Nos. EROO-3591-000and EROO-3591-001, September 28, 2000.

[53] *Interim Pricing Report on New York State's Independent System Operator,* New York State Department of Public Service, December 2000.

shortage of on-site generation facilities, (4) transmission bottlenecks in New York City and Long Island, and (5) a flawed wholesale market.

First, in addition to increases in oil prices, gas prices, previously deregulated by the Federal government, have risen in the US because of a shortage of supply. Natural gas is increasingly used in electric generation and as the source of heat and cooking fuel in new home construction. Gas is the main fuel used for electric generation in New York City. In testimony before the State Legislature, the Chairman of Consolidated Edison attributed 50 percent of the increase in electric prices to higher oil and gas prices.[54]

Second, economic growth in the region has increased the demand for electricity. As mentioned above, the electric-intensive nature of new technologies and industries has compounded the normal increase in demand in times of economic expansion.

Third, and probably most important, is the shortage of generation facilities in the state. In fact, only one new generation facility has been constructed in the state in about twenty years.[55] There are a number of reasons for this shortage. To increase power supply in the 1970's and 1980's, the Federal government promoted production of electricity by Independent Power Producers (IPP). In New York, utilities were required by law to purchase power from these generators at uneconomical rates. Thus, the supply of electricity increased in the state but on economically dysfunctional terms. The slow growth in the economy did not place any additional pressure on supply, so the modest increases from the IPP's were sufficient. With sufficient supply there was no need for new generation plants and utility investment in generation was discouraged. Notwithstanding the Public Service Law amendment that expedites the siting process for generation plants under 80 megawatts, siting electric generation plants involves a time-consuming regulatory approval process.

Fourth, in Long Island and New York City, transmission bottlenecks place constraints on transporting power from outside the region. Because of the constraints and a need for reliability, a significant portion of the electricity demand must be produced locally—80 percent for New York and 93 percent for Long Island. In other words, even if cheaper electricity were available elsewhere, it would not be possible to transport it to these regions. The construction of a new transmission line from Long Island to Connecticut by the

[54] Testimony of Eugene R. McGrath before New York State Assembly Speaker Sheldon Silver, and the Committees on Energy, Ways and Means, Corporations, Authorities, & Commissions, and Environmental Conservation and Consumer Affairs, August 2, 2000.

[55] Testimony of Maureen O. Helmer, chairperson, New York State Public Service Commission, before New York State Assembly Speaker Sheldon Silver, and the Committees on Energy, Ways and Means, Corporations, Authorities, & Commissions, and Environmental Conservation and Consumer Affairs, August 2, 2000.

Long Island Power Authority (LIPA) and a private company is intended to provide some relief on Long Island.

Finally, Consolidated Edison and others point to design problems in the wholesale market that have prevented real competition and encouraged market power abuse.[56]

Options Being Considered and Implications

Looking into the future, the NYISO forecasts that New York State will require construction of 500-600 megawatts of new capacity annually over the next several years, each of which, in reality, would take several years to bring on-line. The demand for electricity in the downstate Con Edison region alone is increasing by between 150 and 300 megawatts annually.[57]

In response to the slow pace of bringing plants on line, the NYSIO asserts that New York is likely to experience price hikes and system reliability problems if demand is not curtailed.[58]

Environmental activists argue that the addition of new power plants absent a concerted strategy to reduce demand through energy conservation and more efficient demand side management is counterproductive economically and ecologically.[59] Recently, the PSC approved doubling the System Benefits Charge (SBC). Overall these monies are to be targeted for capacity-increasing and/or demand-reducing programs. The PSC staff reports that neither ESCO's (narrow profit margin) nor the market could provide SBC-type services in the near future. However, environmental advocates are concerned about the use of these funds to site power generators. Earlier, the revenue stream was devoted to research and development, energy efficiency, and programs to help low-income consumers pay for their electricity use.[60]

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[56] *Motion to Intervene, Answer and Comments of Consolidated Edison Company of New York, Inc. And Orange and Rockland Utilities, Inc.* Federal Energy Regulatory Commission, Docket Nos. EROO-3591-000 and EROO-3591-001, September 28, 2000. See also "Con Edison Urges Major Reforms for Electricity Marketplace to Protect Consumers: Cites Flaws in Price Bidding Process," Consolidated Edison Press Release, September 28, 2000; "How to Hold Line On Power Prices," *Crain's New York Business Editorial*, January 1-7, 2001.

[57] *New York Independent System Operator: How It Works, What It Does, What Its Mission Is,* New York Independent System Operator, December 2000.

[58] One of the problems to emerge from the lack of an overall plan is a failure to establish the basic level of need for new electricity capacity. NYISO has made a projection. Recently, Con Ed, in response to a community-industry dialogue on electricity deregulation, has offered some additional figures. Community and environmental organizations have offered yet another estimation of needed capacity.

[59] "Debate on Need for New Power Plants Ignores Conservation," *New York Times*, September 26, 2000.

These programs provide an invaluable resource to demand management. However, their value is not fully exploited without identifying new capacity needs, to be met from either new or re-powered generation facilities.

At the core of this discussion is how best to address the supply problems and resulting price increases during periods of peak electricity demand.

One option is to use demand-side measures to reduce the height of demand. Sound demand-side management initiatives increase in value and effectiveness depending on their strategic deployment. These measures have both short- and long-term potential.

Another is to build additional power plants that sell to the New York City market only at peak demand periods. This resolves the reliability issue, but builds in an expensive source of peak-demand electricity. The theory behind deregulation is that the new pricing structure should be sufficient to raise the capital needed to stimulate the production of new capacity. As new capacity comes on line reliability is ensured and prices tend to stabilize. It remains to be seen how the new capital markets that have formed in response to deregulation will produce the excess capacity needed to reduce prices. In any market, new power plant capacity represents a long-term solution. In markets like New York City where the supply of generation facilities is limited, near-term solutions are needed.

A third option, spearheaded by the New York Power Authority (NYPA) involves the purchase of 10 small electricity generators to "help avoid devastating price spikes and keep the lights on in schools, health facilities, businesses and homes in Queens and throughout New York City."[61] NYPA is spending up to $220 million to purchase up to 11 natural gas turbines, investing an additional $5 million per unit (up to $55 million) to insure that the plants remain clean, and selling $450 million in bonds to pay costs associated with installing the turbines.[62]

These emergency generators are necessary partly because of the failure to deploy demand management resources. The new generators will have the potential to supply peak demand electricity at a price that will be below actual costs.

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[60] Business leaders have strenuously opposed the doubling of the SBC for several reasons, not the least of which is its impact on rates and the ensuing cost increases that are passed on to business and residential consumers. Some have pointed to the disparate impact on upstate businesses, which are in a weaker market with less ability to absorb this increased cost. See Comment on Staff *Proposal for the Extension, with Modifications of System Benefits Charge Funded Public Benefit Programs*, Rochester Gas and Electric Corporation (RGE), November 20, 2000; "Council Urges State to Restructure a Proposed New Energy Charge," The Business Council of New York State, press Release, November 20, 2000.

[61] Statement by the New York Power Authority, January 23, 2001.

[62] See press releases and "POWER NOW!" fact sheets at www.nypa.gov.

Because NYPA's cost structure is different than the private sector companies producing power, the actual costs may not be passed along in its price. NYPA's further penetrating the New York City market may depress the real price of supplying electricity during peak periods. This is an unforeseen government intervention into the deregulation process. The impact on the private sector power generators that are setting prices based on cost and market conditions is unclear, but the action compromises the predictability of deregulation. Perhaps power generators should accept these "temporary" governmental interventions in order to avoid other more restrictive public actions. However, the siting controversy generated by the emergency facilities – including local environmental and fair share siting issues[63] – will make community acceptance of the facilities more difficult. How many new generation facilities will communities have to accept before the problem is solved?

A fourth option is to impose a price cap on the wholesale side of the market. PSC Staff recently recommended a $150 /mwh soft price cap.[64] The price cap may serve the same purpose as the turbine generators – ensuring reliability and holding the line on prices during peak demand periods. The cap comes, however, with the same risk to the deregulation process. It is another "temporary" government intervention.

The use of price caps at this point in the process sends a mixed message to industry stakeholders. As part of an overall strategy to mitigate price spikes, price caps could have been incorporated into the original market-structuring agreement and could have been accepted as a necessary and rational part of deregulation.[65] Instead, the procedures employed in New York used price caps to correct original flaws in the structure. The overall impact will change the rules of capital accumulation and reinvestment for power generators. While this report has expressed concern over the excessively high prices resulting from deregulation thus far, one potential benefit is a more rapid increase in profits that could lead to reinvestment. The benefit is only realized however if the profits are reinvested into system improvements in New York State.[66]

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[63] American Lung Association of New York State and Others, *Letter to Commissioner John Cahill, New York State Department of Environmental Conservation*, December 12, 2000. See, William Sherman, "Power Plan Protest Building Up Steam," *The Daily News*, January 14, 2001.

[64] *Interim Pricing Report on New York State's Independent System Operator*, New York State Department of Public Service, December 2000.

[65] One of the ways Pennsylvania has balanced the problems created by introducing wholesale and retail competition is through the use of caps that phase out over a long period of time. See, Christopher Swope, "Power to the People?" *Governing*, January 2001.

[66] "Keyspan Reports Record Third Quarter Results: 2000 Earnings Expected Increase 40 percent Over 1999," *Keyspan Quarterly Update*, Third Quarter 2000.

Conclusion and Recommendations for Deregulation Policy in New York State

The basic problems facing electricity deregulation in New York State are: It is occurring in an environment where supply is tight, conservation and demand management programs are not linked to the public, and the promise of lower prices has been overstated.

Conclusion: New York's Electric Policy Rests on Faulty Assumptions

In addition, the initial decisions made by the PSC and the agreements it negotiated with the utilities to deregulate energy were governed by several assumptions that have proven to be wrong. These flawed assumptions became the guiding principles of the PSC as it pressed utilities to sell their power plants quickly, and took steps to set up retail competition. Those failed assumptions are:

Assumption #1: Deregulation would mean reduced prices for all customers right away. This was wrong. The principal factors influencing price are pushing them up. Limited supply, high oil and gas prices, a new price-setting mechanism, and new owners with new bottom lines are all combining to raise prices.

Assumption #2: There was a sufficient supply of electricity in New York State to allow the wholesale and retail markets to mature with a minimum of problems. As new players took over the power plants, competition between them would reduce prices. These assumptions were wrong. The lack of new plant sitings, and primarily downstate driven-growth has resulted in restricted supply. When supply is tight, those who control it raise prices.

Assumption #3: Competition in the wholesale market would immediately stimulate new investments in cheaper, cleaner, more efficient power plants. This was wrong. Siting issues are a significant factor even when capital is available. New investors in the industry are also making demands for faster recovery of their investments.

Assumption #4: Competition in the retail market could somehow produce lower prices for consumers without a stable wholesale market. This was wrong. The original PSC agreements in the downstate area allowed Con Edison to pass through higher costs in the wholesale market. Without a stable wholesale market, retail competition cannot lead to price stability.

As a result of these failed assumptions, the first steps toward energy deregulation have faltered. Several corrective actions have been taken by the PSC and other stakeholders. The actions taken thus far are not likely to establish a firm basis for deregulation to take hold. There are several short- and long-term strategies, which if taken, should be able to address these failings.

Short-Term Emergency Strategy

These short-term strategies are designed to insure a steady supply of electricity while establishing a firm foundation for the development of deregulated markets. Based on the materials used to prepare this report, it is clear that the information needed to implement this strategy exists. The timeline is intended to guide actions in a structured way – a structure notably absent in the approach to deregulation and reactive steps in response to its failures to date.

1. **Within 30 Days propose to the Residents and Businesses of New York State a Plan for Energy Conservation this summer.**

The public has been left out of the process thus far. The cost of this exclusion is high. The public is the state's best resource in this effort. The existence of high prices now requires a sensible program that helps people reduce their electricity consumption. The Governor should ask the public to respond to a carefully defined plan that: a) reduces the use of electricity during hot days without compromising the health of state residents; b) identifies and deploys resources with a commitment equal to the purchase and siting of emergency generators; c) establishes an ongoing system of communication with communities where the demand reduction could have most impact.

If this opportunity to shape consumer behavior is missed, the complaints of the business community about the costs of the new conservation programs will gain credibility, and future investments may be impaired.

2. **Within 45 Days Disclose to the public the Exit Strategy for the 10 Emergency Generators that have been imposed on New York City neighborhoods and form a State/City action team to respond to resident concerns.**

The New York Power Authority (NYPA) has said these generators are needed as an emergency measure to reduce the risk of brownouts during the summer. The generators may also serve to mitigate price spikes.

The emergency generators are not part of the original deregulation framework. As a public sector intervention into the market they send a mixed message to the investment community. Without a clear plan regarding their ultimate disposition, their existence undermines deregulation. The three-year permit they have been granted stretches the concept of 'emergency'.

The imposition of these generators on New York City neighborhoods impairs the public confidence that is vital for the success deregulation. The three-year permit sends a message that these plants may ultimately become permanent. And the lack of a long-term publicly disclosed plan for their disposition raises additional questions. Immediate steps should be taken to ensure that the use of these

generators is carefully monitored, and resources set aside to deal immediately with any adverse consequences. The Governor and the Mayor should have an action team prepared for the summer that can monitor community events and take immediate action to address emerging problems.

3. **Within 60 days explain to New Yorkers who are paying higher prices where the money has gone.**

The public has been promised new, cleaner, and more efficient power plants. This may be the only benefit received from higher prices. Last year some power generators had larger than expected profits as a result of the price spikes. What are the investment plans of those seeking to develop plants in New York State? While it is clear that most companies are planning new or refurbished facilities, no mechanism is in place to explain the link to the public, or to ensure that promises are kept.

4. **Within 90 days establish an agreement that addresses spiraling wholesale prices without undermining deregulation.**

The PSC has proposed a $150/mwh 'soft price cap.' Its purpose is to act as a deterrent against market abuses during peak demand periods. The cap, as proposed, still allows generators to receive what they bid. The proposal therefore offers only limited protection to consumers. Nevertheless it has important implications for the deregulation effort because it potentially discourages new producers from entering the market.

The PSC's proposal lacks a clear purpose. How long will the caps be imposed? What conditions will trigger a lifting of the caps? Without a clear answer, price caps might act as a disincentive to future investment. The introduction of caps is a significant departure from the deregulation agreements originally established by the PSC. Other states have used the caps as part of a comprehensive plan, but price caps in New York must be seen as a temporary tool. Immediate steps need to be taken to establish a consensus among the stakeholders on how long the caps will be in place and what conditions must be met to lift them.

Long-Term Planning Issues

These short-term steps may buy some time, but without a long-term strategy they may not achieve their purpose. As is made clear above, the short-term steps that have already been proposed do not suggest a strategy of corrective action, they are more a set of steps taken to address the press of events.

Any long-term blueprint for success must address the issues outlined below and answer a series of related questions.

1. **Protect the state's economic competitiveness**

The nature of electricity is such that changes in the industry, particularly price increases have an impact on every business and household in the state. Where the local economy is strong, the impacts may be relatively minor. Where the local economy is more fragile, even a small price increase can cause problems. State residents need a steady flow of reliable information to be able to assess what is happening with energy deregulation. And state decision-makers need to be able to make changes that are based on solid information. How will the public be kept abreast of the impact of energy deregulation on the state economy? How is the new pricing environment affecting the diverse industries that compose the state economy? What are the impacts on New York City and the surrounding suburbs? What are the impacts on the rural, suburban and urban communities in upstate New York?

2. **Settle the issue of how much new electricity is needed and resolve the dilemmas regarding how much can be achieved through new power plants and how much through energy conservation and demand management.**

Recently an effort has been undertaken by New York University to facilitate communication between the stakeholders in the energy deregulation process. This effort has resulted in two meetings and several independent pieces of research. This effort should serve a constructive purpose.

3. **Create a system that ensures the integrity of the programs used to conserve energy.**

The state's business community has opposed the Systems Benefit Charge as a tax without a benefit. Environmentalists and PSC staff have argued that the investment in energy conservation efforts provides a reasonable return for the investment. This is a challenge to all involved to ensure that the burden placed on businesses and consumers demonstrates that energy efficiency programs generate the benefits they promise. Only a concerted effort by the business community and committed citizens will make the actual investments produce results. How will the state insure the integrity of these investments? What are the best incentives and educational tools to achieve consumer readiness in the new pricing environment? How will conservation programs work in the new pricing environment?

4. **Explain how the environmental promise of a cleaner system to provide electricity will be achieved.**

Every generation facility in the state and the ones proposed should be part of a larger plan to achieve this goal. What will be the energy sources used to power the state's generation facilities five and ten years from now? What is the future of

hydroelectric, coal and nuclear power? What role will alternative energy sources play? What will be the costs and impact on reliability?

The answer to these questions will constitute a major response by state government regarding its plans to decrease air pollution in the state. And each decision that is made regarding an individual power plant has important implications for host communities. Will those that now host coal-burning plants see upgrades and changes? Will those communities, like Westchester County, be afforded an opportunity to resolve the issues related to nuclear power?

5. Create a new price-setting mechanism and determine if the organization established to monitor the electricity market is the right one for the job.

The price increases this past summer brought increased attention to the bidding process and governing structure of the ISO. The bid process currently used to set wholesale prices ensures higher prices when supply is tight. And, since the short supply of electricity is rewarded so well, the pricing mechanism may work against long-term investments to spur greater competition. A new mechanism is needed.

Some have questioned if the ISO was pressed into action prematurely. The FERC staff study of wholesale markets throughout the U.S. concludes: "While many prices in New York this past summer stem from fuel costs, outages, and import difficulties…[important] rules and software corrections remain incomplete…The need for so many software corrections and the length of time necessary to effect the required changes begs the question as to whether one existing market protocol and software package ought to be applied to New York as part of a greater northeastern market restructuring, or, at, least, whether NYISO markets should limit its markets to energy until that market functions efficiently, at which time it could add other products."[67] The questions raised have not been addressed by the State. Is the ISO the best way to handle the complicated transition to deregulated markets? And is it the correct structure for the future maturation of those markets? If the ISO is to continue in its role as market coordinator, how does the State ensure the ISO has the authority to fulfill this important role? What are the implications of working with neighboring states to form a regional wholesale market?

6. Restore confidence in the siting process

The rush to site eleven emergency generators in New York City has tarnished the future of power plant sitings around the state. The process to achieve this objective ran rough shod over community and environmental concerns. The

[67] *Staff Report to the Federal Energy Regulatory Commission on the Bulk Power Markets in the United States: Investigation of Bulk Power Markets – Northeast Region*, Federal Energy Regulatory Commission, November 1, 2000.

negative impact on community perception is likely to spill over onto those other siting efforts to find suitable location for permanent facilities. The failure to adopt an environmental strategy also undermines credibility, as those communities that are asked to accept existing facilities or new ones have no way to gauge the overall picture. In addition, the failure to answer the basic questions about the need for new generators undermines government efforts to convince citizens of the need for new plants.

7. Protect local and county governments from adverse impacts.

The Administration did not attempt to plan for the impact of electricity deregulation on local governments. It was only after the Legislature took action that any effort was devoted to this issue. The follow-up to the legislative mandates has been weak. Local and county governments and school boards need an ally at the state level to handle the complicated questions confronting them. How will the state assist local and county governments during this period of change? As the markets governing the generation facilities under deregulation begin to stabilize, how will the process of property reevaluation take place? What steps will be taken to smooth transitions, so that local property tax payers do not have to bear the burden of a shifting tax base.

All of these issues must be addressed, and specific questions answered, if the State is to change its current approach to deregulation in favor of a comprehensive plan.

APPENDIX

Table A

Electric Prices for US and NYS

Average Revenue per kwh for Utilities
1995 through August 2000*
(Cents)

	All Sectors		Residential	
Year	**US**	**New York**	**US**	**New York**
1995	6.89	11.06	8.4	13.9
1996	6.86	11.13	8.36	14.04
1997	6.85	11.13	8.43	14.12
1998	6.74	10.71	8.26	13.66
1999	6.66	10.4	8.16	13.32
2000	6.64	11.2	8.2	14

* Note: 1995-99 data is annual; 2000 data is ytd avg through Aug.

Source: Energy Information Administration, *Electric Power Monthly,* November 2000
Electric Sales and Revenue 1999, 1998, 1997, 1996, 1995, October 2000.
October 1999, October 1998, December 1997, Decemer 1996.

Table B

Electric Utility Prices by Sector and State
Average Revenue per Kilowatthour, Year-to-Date (Jan - Aug 2000)
(Cents)

State	Residential	Commercial	Industrial	Other 1	All Sectors
U.S. Average	**8.2**	**7.19**	**4.42**	**6.28**	**6.64**
New York	**14**	**12.4**	**4.9**	**8.7**	**11.2**
New Hampshire	13.6	11.5	9.4	13.7	11.7
Connecticut	10.9	9.3	7.4	10.9	9.6
Massachusetts	10.5	8.8	7.8	14.2	9.2
New Jersey	11	8.6	6.8	17.1	9.2
California	10.5	9	5.5	4.8	8.5
Michigan	8.6	7.9	5.1	11.4	7.1
Florida	7.7	6.2	4.9	7	6.8
Illinois	8.9	7.2	4.4	5.5	6.6
Ohio	8.6	7.6	4.5	6.2	6.6
North Carolina	8	6.4	4.6	6.4	6.5
Pennsylvania	8.9	6.2	3.9	8.4	6.3
Georgia	7.8	6.5	4.2	8.8	6.3
Texas	7.8	6.7	4.3	6.7	6.3
Minnesota	7.5	6.3	4.6	7.9	5.9
Alabama	7.1	6.7	4	6.8	5.7
South Carolina	7.4	6.2	3.6	5.9	5.5

1 Includes sales for public street and highway lighting, other sales to public authorities, sales to railroads and railways and interdepartmental sales.

Source: Energy Information Administration, *Electric Power Monthly,* November 2000

Table C

Average Summer Electric Prices by State

June-August 1999 and 2000

Average Revenue per Kilowatthour (Cents)

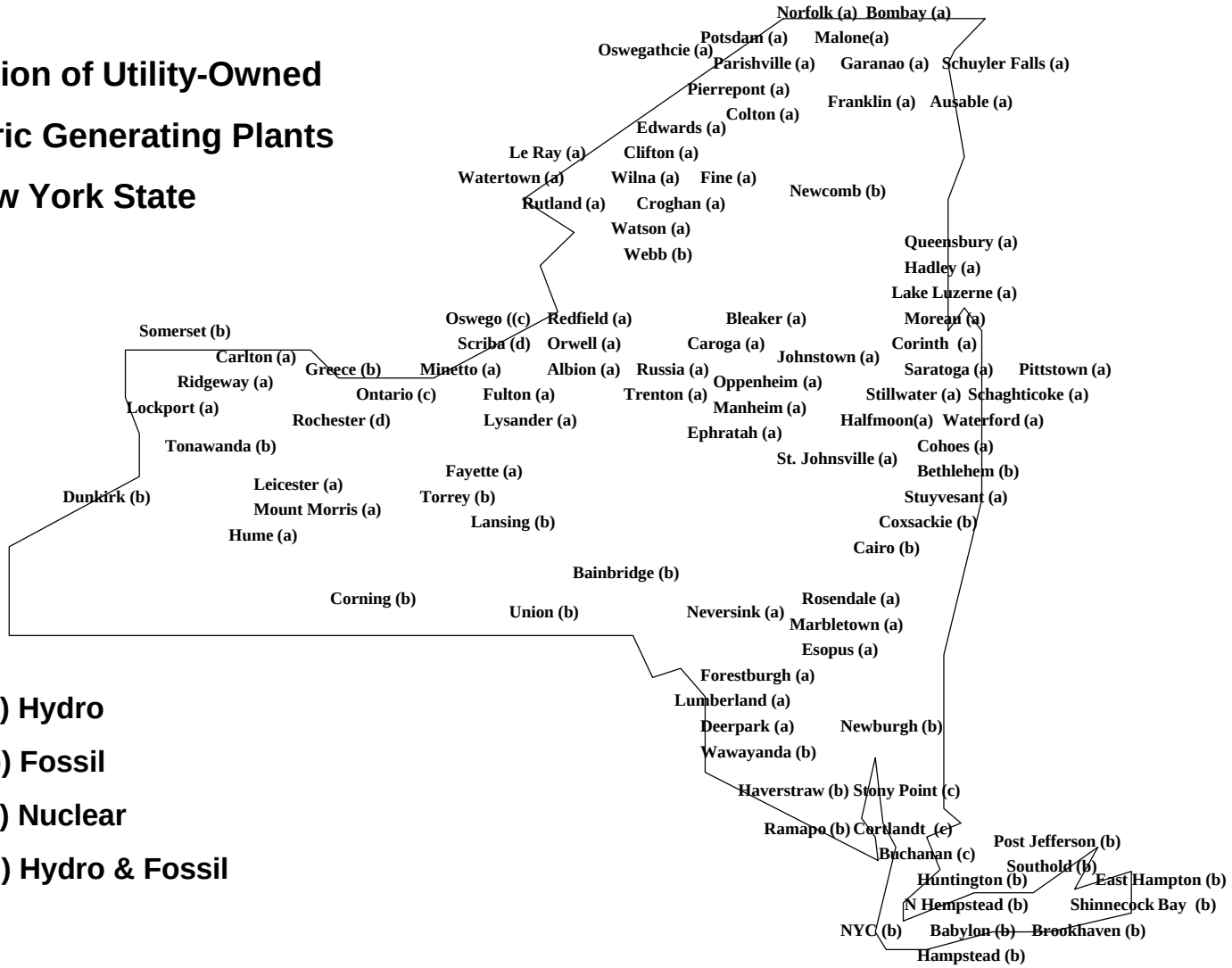
	Summer Average		% Change
	2000	1999	2000
U.S. Average	**7.04**	**7.0**	**0.5%**
New York	**12.3**	**10.8**	**14.2%**
New Jersey	9.6	10.7	-10.0%
California	8.9	9.7	-7.9%
Pennsylvania	6.8	7.2	-5.1%
Illinois	7.2	7.6	-4.8%
Connecticut	9.7	10.2	-4.3%
Michigan	7.1	7.4	-4.0%
Minnesota	6.2	6.4	-2.1%
South Carolina	5.7	5.8	-1.7%
Ohio	6.9	6.9	-1.0%
New Hampshire	11.7	11.7	0.0%
North Carolina	6.7	6.6	1.5%
Alabama	6.2	6.0	2.2%
Georgia	7.0	6.8	2.9%
Florida	7.0	6.7	3.5%
Massachusetts	10.1	9.6	4.8%
Texas	6.6	6.2	7.0%

1 June, July and August averaged for each year.

Source: Energy Information Administration, *Electric Power Monthly*

August-November, 1999, 2000

Location of Utility-Owned Electric Generating Plants in New York State



(a) Hydro

(b) Fossil

(c) Nuclear

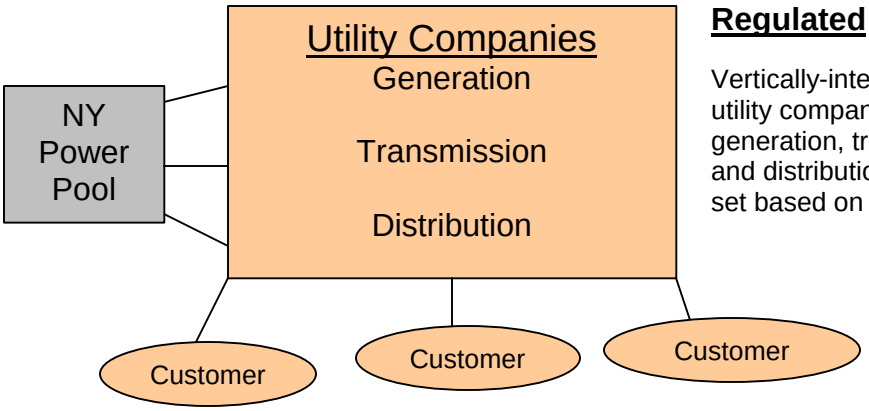
(d) Hydro & Fossil

Source: *Divestiture of Electricity Generating Plants: Property Tax Implications*, State Board of Real Property Services, December 31, 1999

Chart A

Chart B

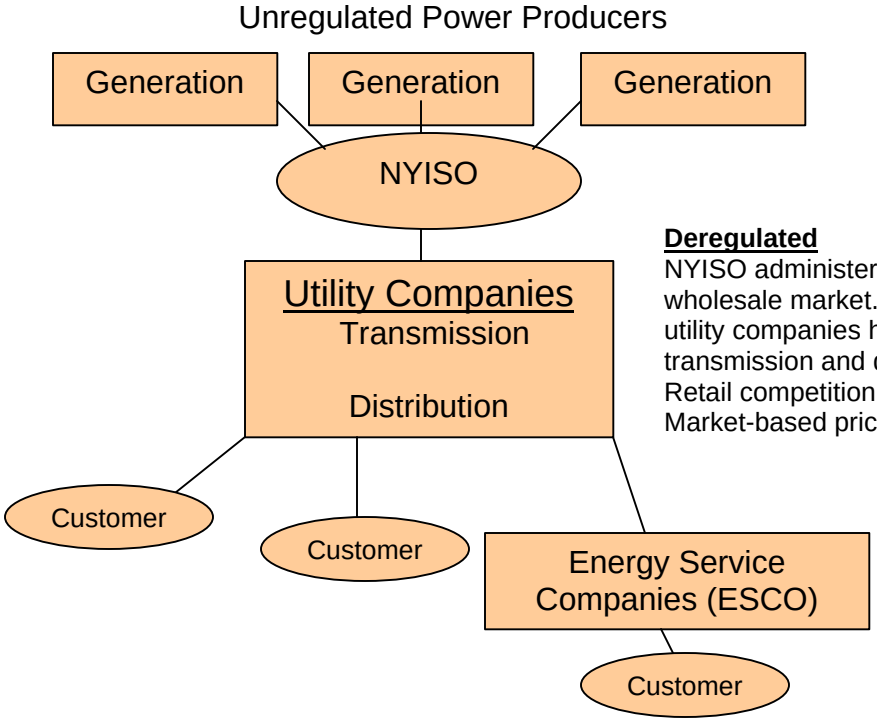
Old Industry Structure



Regulated

Vertically-integrated utility companies handled generation, transmission and distribution with prices set based on cost.

New Industry Structure



Deregulated

NYISO administers new wholesale market. Regulated utility companies handle transmission and distribution. Retail competition introduced. Market-based pricing.

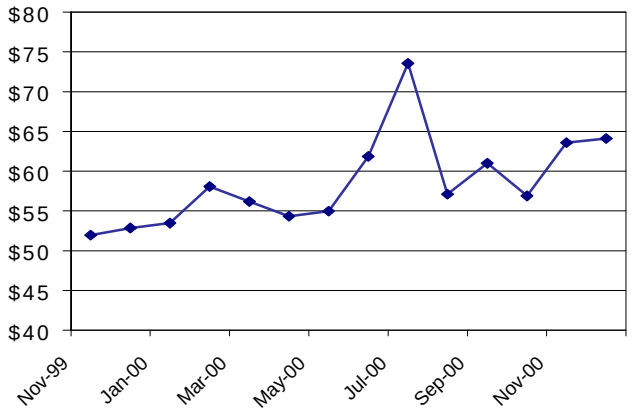
Source: OSC (adapted from Con Edison)

Chart C

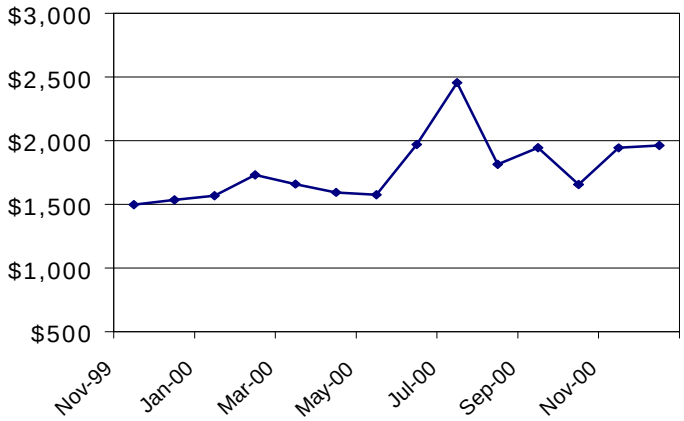
New York City's Electric Prices

Con Edison Average Monthly Bills

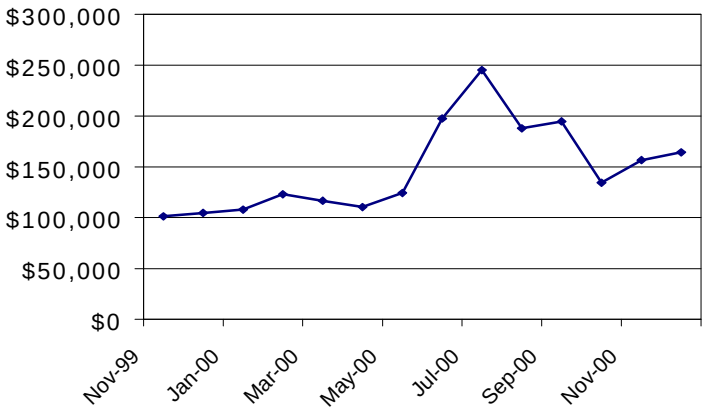
Residential



Small and Medium Sized Commercial Users



Large Commercial Users



Source: Con Edison

GLOSSARY

Article X: "Certification of Major Electric Generating Facilities", New York State's process for permitting new power plants (See: http://www.dps.state.ny.us/articlex.htm).

Average Revenue per Kilowatthour: Total revenue divided by total kilowatthours sold. When calculated for each sector (residential, commercial, industrial), it is total revenue of that sector (e.g., residential) divided by total kilowatthours sold to that sector.

Capacity: An amount of electricity that would be available from a generating unit, utility or system. Capacity is valued in units of energy such as megawatts for electrical power.

Commercial: The commercial sector is generally defined as non-manufacturing business establishments, including hotels, motels, restaurants, wholesale businesses, retail stores, and health, social, and educational institutions. The utility may classify commercial service as all consumers whose demand or annual use exceeds some specified limit. The limit may be set by the utility based on the rate schedule of the utility.

Cost-Based Pricing: Prices set on the fees charged by the providers instead of market prices.

Cost-of-Service Regulation: Traditional electric utility regulation under which a utility is allowed to set rates based on the cost of providing service to customers and the right to earn a limited profit.

Day-Ahead Market: The forward market for energy and ancillary services to be supplied during the settlement period of a particular trading day that is conducted by the Independent System Operator, the power exchange, and other Scheduling Coordinators. This market closes with the Independent System Operator's acceptance of the final day-ahead schedule.

Demand (Electric): The rate at which electric energy is delivered to or by a system, part of a system, or piece of equipment, at a given instant or averaged over any designated period of time.

Demand Bid: A bid into the power exchange indicating a quantity of energy or an ancillary service that an eligible customer is willing to purchase and, if relevant, the maximum price that the customer is willing to pay.

Demand-Side Management (DSM): The planning, implementation, and monitoring of utility activities designed to encourage consumers to modify patterns of electricity usage, including the timing and level of electricity demand. It refers only to energy and load-shape modifying activities that are undertaken in response to utility-administered programs. It does not refer to energy and load-shape changes arising from the normal operation of the marketplace or from government-mandated energy-efficiency standards.

Deregulation: The elimination of regulation from a previously regulated industry or sector of an industry.

Distribution: The delivery of electricity to retail customers (including homes, businesses, etc.).

Divestiture: The stripping off of one utility function from the others by selling (spinning-off) or in some other way changing the ownership of the assets related to that function. Stripping off is most commonly associated with spinning-off generation assets so they are no longer owned by the shareholders that own the transmission and distribution assets.

Electric Utility: A corporation, person, agency, authority, or other legal entity or instrumentality that owns and/or operates facilities within the United States, its territories, or Puerto Rico for the generation, transmission, distribution, or sale of electric energy primarily for use by the public and files forms listed in the Code of Federal Regulations, Title 18, Part 141. Facilities that qualify as cogenerators or small power producers under the Public Utility Regulatory Policies Act (PURPA) are not considered electric utilities.

Energy Efficiency: Refers to programs that are aimed at reducing the energy used by specific end-use devices and systems, typically without affecting the services provided. These programs reduce overall electricity consumption (reported in megawatthours). Such savings are generally achieved by substituting technically more advanced equipment to produce the same level of end-use services (e.g. lighting, heating, motor drive) with less electricity. Examples include high-efficiency appliances, efficient lighting programs, high-efficiency heating and efficient building design.

EPACT: The Energy Policy Act of 1992 addresses a wide variety of energy issues. The legislation creates a new class of power generators, exempt wholesale generators, that are exempt from the provisions of the Public Holding Company Act of 1935 and grants the authority to the Federal Energy Regulatory Commission to order and condition access by eligible parties to the interconnected transmission grid.

Federal Energy Regulatory Commission (FERC): A quasi-independent regulatory agency within the Department of Energy having jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, oil pipeline rates, and gas pipeline certification.

Gas Turbine Plant: A plant in which the prime mover is a gas turbine. A gas turbine consists typically of an axial-flow air compressor, one or more combustion chambers, where liquid or gaseous fuel is burned and the hot gases are passed to the turbine and where the hot gases expand to drive the generator and are then used to run the compressor.

Generation (Electricity): The process of producing electric energy by transforming other forms of energy; also, the amount of electric energy produced, expressed in watthours (Wh).

Grid: A system of power lines and generators that are coordinated to provide electricity to customers at various points

Independent Power Producers: Entities that are also considered non-utility power producers in the United States. These facilities are wholesale electricity producers that operate within the franchised service territories of host utilities and are usually authorized to sell at market-based rates. Unlike traditional electric utilities, Independent Power Producers do not possess transmission facilities or sell electricity in the retail market.

Industrial: The industrial sector is generally defined as manufacturing, construction, mining agriculture, fishing and forestry establishments Standard Industrial Classification (SIC) codes 01-39.

Kilowatt (kW): One thousand watts.

Kilowatthour (kWh): One thousand watthours.

Load (Electric): The amount of electric power delivered or required at any specific point or points on a system. The requirement originates at the energy-consuming equipment of the consumers.

Market-Based Pricing: Electric service prices determined in an open market system of supply and demand under which the price is set solely by agreement as to what a buyer will pay and a seller will accept. Such prices could recover less or more than full costs, depending upon what the buyer and seller see as their relevant opportunities and risks.

Market-Clearing Price: The price at which supply equals demand for the Day Ahead and/or Hour Ahead Markets, i.e., the spot market .

Megawatt (MW): One million watts.

Monopoly: One seller of electricity with control over market sales.

New York Power Authority (NYPA). A public authority created by law that generates and provides electricity for wholesale and retail customers in the state. It is not subject to the jurisdiction of the New York State Public Service Commission

New York State Public Service Commission (NYPSC, PSC): A state agency established by law with oversight responsibilities regarding the operation of regulated monopoly utilities.

Peak Demand: The maximum load during a specified period of time.

Power Pool: An association of two or more interconnected electric systems having an agreement to coordinate operations and planning for improved reliability and efficiencies.

PURPA: The Public Utility Regulatory Policies Act of 1978, passed by the U.S. Congress. This statute requires States to implement utility conservation programs and create special markets for co-generators and small producers who meet certain standards, including the requirement that States set the prices and quantities of power the utilities must buy from such facilities.

Reliability: Electric system reliability has two components--adequacy and security. Adequacy is the ability of the electric system to supply to aggregate electrical demand and energy requirements of the customers at all times, taking into account scheduled and unscheduled outages of system facilities. Security is the ability of the electric system to withstand sudden disturbances, such as electric short circuits or unanticipated loss of system facilities. The degree of reliability may be measured by the frequency, duration, and magnitude of adverse effects on consumer services.

Renewable Resource : An alternate energy source to oil, gas or coal used to produce electricity.

Reregulation: The design and implementation of regulatory practices to be applied to the remaining regulated entities after restructuring of the vertically-integrated electric utility.

Reserve: The availability of additional generation. Installed reserve is the amount of existing generation that is higher than needed to meet a forecasted peak load. Operating reserve is the amount of unused available capability of an electric power system at peak load that may be used to offset a loss of supply.

Residential: The residential sector is defined as private household establishments which consume energy primarily for space heating, water heating, air conditioning, lighting, refrigeration, cooking and clothes drying.

Restructuring: The process of replacing a monopoly system of electric utilities with competing sellers, allowing individual retail customers to choose their electricity supplier but still receive delivery over the power lines of the local utility. It includes the reconfiguration of the vertically-integrated electric utility.

Retail: Sales covering electrical energy supplied for residential, commercial, and industrial end-use purposes. Other small classes, such as agriculture and street lighting, also are included in this category.

Retail Competition: A market that allows more than one energy provider to sell directly to customers and, where customers have the choice of buying from more than one provider

Revenue: The total amount of money received by a firm from sales of its products and/or services, gains from the sales or exchange of assets, interest and dividends earned on investments, and other increases in the owner's equity except those arising from capital adjustments.

Securitization: A proposal for issuing bonds that would be used to buy down existing power contracts or other obligations. The bonds would be repaid by designating a portion of future customer bill payments. Customer bills would be lowered, since the cost of bond payments would be less than the power contract costs that would be avoided.

Spot Market: A market in which goods or securities are traded for immediate delivery, as distinct from a forward market. In the spot market for wholesale electricity, utilities purchase power nearly immediately with the market being divided into three segments: "2-Days Ahead," "Day Ahead," or "Real Time," i.e.., instantaneously.

Stranded Costs: Costs that a utility has an obligation to pay for (*e.g.,* long-term contracts or payments on a generation plant) but may not be able to recover from a customer because the customer no longer uses the utility's service.

Transmission: The transportation of electricity or natural gas from a generation plan or pipeline to another facility. Or, the transfer of energy between utility systems.

Transmission System (Electric): An interconnected group of electric transmission lines and associated equipment for moving or transferring electric energy in bulk between points of supply and points at which it is transformed for delivery over the distribution system lines to consumers, or is delivered to other electric systems.

Unbundling: The separating of the total process of electric power service from generation to metering into its component parts for the purpose of separate pricing or service offerings.

Vertical Integration: An arrangement whereby the same company owns all the different aspects of making, selling, and delivering a product or service. In the electric industry, it refers to the historically common arrangement whereby a utility would own its own generating plants, transmission system, and distribution lines to provide all aspects of electric service.

Wholesale Competition: A market that allows a distribution company to buy energy from a variety of sources, and where the energy producers would be able to sell to distribution companies

Wholesale Market: The purchase and sale of electricity from generators to resellers (who sell to retail customers), along with the ancillary services needed to maintain reliability and power quality at the transmission level.

Wires Charge: A broad term which refers to charges levied on power suppliers or their customers for the use of the transmission or distribution wires.