

MEMORANDUM

February 23, 2004

TO: Peter R. Smith, William M. Flynn, Erin M. Crotty, Joseph H. Boardman,
Charles A. Gargano

FROM: Energy Coordinating Working Group¹

SUBJECT: State Energy Plan - 2003 Annual Report and Activities Update

INTRODUCTION

The *2002 State Energy Plan and Final Environmental Impact Statement* (Energy Plan) was released by the State Energy Planning Board (Planning Board) in June 2002. In December 2002, the staffs of the Planning Board agencies released the *2002 Annual Report and Activities Update* (Annual Report) memorandum which documented progress made through December 2002 in implementing policies and recommendations contained in the Energy Plan. This memorandum updates the State's activities and progress made toward the State's energy policy objectives through December 2003. This memorandum also summarizes and presents information filed voluntarily with NYSERDA in 2003 by major energy suppliers pursuant to the former Article 6 of State Energy Law and Planning Board regulations (Title 9 NYCRR Parts 7840-7863).²

SUMMARY OF ENERGY PLAN IMPLEMENTATION EFFORTS

In the eighteen months since its release, the State has made notable progress implementing the policies and recommendations contained in the Energy Plan. Progress is reported in the context of the following four broad themes that encompass the policies and recommendations included in the Energy Plan:

1. Energy and Infrastructure Security
2. Energy Diversity
3. Electricity Markets and Electric System Reliability
4. Transportation

¹ The Energy Planning Board agencies consisted of the New York State Energy Research and Development Authority, New York State Department of Transportation, New York State Public Service Commission, New York State Department of Economic Development, and New York State Department of Environmental Conservation. Staffs of the Energy Planning Board agencies were members of the Energy Coordinating Working Group, which was responsible for conducting the 2002 planning proceeding, preparing the State Energy Plan, and receiving information filings from major energy suppliers pursuant to Article 6 of State Energy Law and Board regulations.

² Although Article 6 expired on January 1, 2003, NYSERDA, acting on behalf of the former Planning Board, collected this information on a voluntary basis in order to maintain an accurate and complete record of information and data in anticipation of the future reauthorization of the planning process.

The State's energy policy objectives included in the Energy Plan are listed in Table 1³. These objectives remain as relevant and timely today as they were in 2002, even in light of the continuing developments in energy markets since adoption of the Energy Plan.

Implementing actions that support the State's energy policy objectives provide benefits to all New Yorkers in the form of cleaner air, reduced energy use and greater energy efficiency, lower energy bills, increased energy diversity and security, and increased economic development.

1. **Energy and Infrastructure Security**

In the more than two years since the September 11, 2001 terrorist attacks in New York City, the State's critical energy infrastructures have been undergoing continual review. The U.S. Department of Energy (U.S. DOE), Office of Energy Assurance, in conjunction with the New York State Office of Public Security (OPS), has completed components of a critical infrastructure security assessment for the State. To date, the U.S. DOE has surveyed security threats to the State's electric power grid, as well as to local electricity distribution systems, natural gas pipelines, and natural gas distribution companies.

The U.S. DOE study included input from the Energy Planning Board agencies and authority staffs, staff of the national laboratories and other experts, and staff from OPS. The work product has been incorporated into the Department of Homeland Security's national infrastructure protection program. OPS also initiated a review of security measures currently in place to protect the State's critical energy generation, transmission, and distribution infrastructures. This review was required by Chapter 403 of the Laws of 2003.

In addition, in 2003, the New York State Public Service Commission (PSC) evaluated security assessments of the State's twelve largest utilities that it had ordered to be undertaken in 2002. The PSC, later in 2003, directed the utilities to prepare security action plans detailing how needed security improvements identified in the evaluation would be implemented.

Table 1: Energy Policy Objectives

The five broad public policy objectives contained in the State Energy Plan are:

1. Supporting the continued safe, secure, and reliable operation of the State's energy and transportation system infrastructures;
2. Stimulating sustainable economic growth, technological innovation, and job growth in the State's energy and transportation sectors through competitive market development and government support;
3. Increasing energy diversity in all sectors of the State's economy through greater use of energy efficiency technologies and alternative energy resources, including renewable-based energy;
4. Promoting and achieving a cleaner and healthier environment; and
5. Ensuring fairness, equity, and consumer protections in an increasingly competitive market economy.

Source: 2002 New York State Energy Plan and Final Environmental Impact Statement.

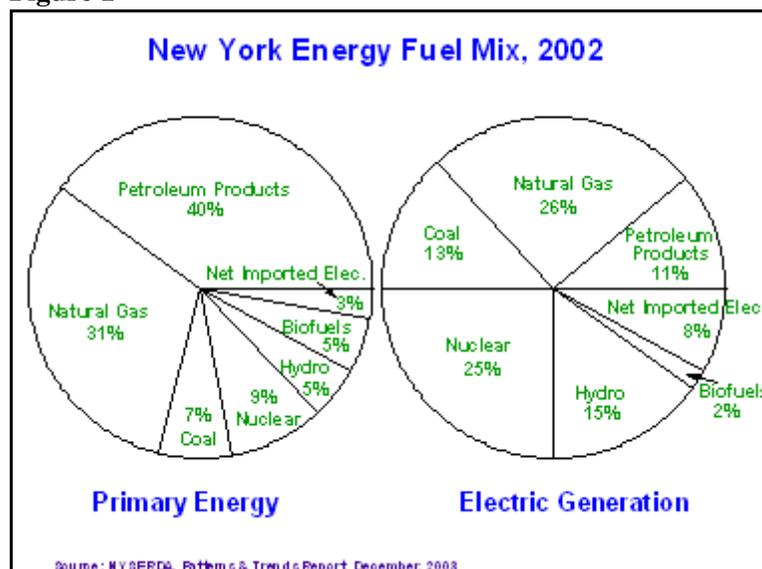
³ Additional details about initiatives mentioned in the text are provided in the Appendix to this memorandum.

2. Energy Diversity

Since release of the Energy Plan and issuance of the *2002 Annual Report and Activities Update*, the State has begun several new initiatives to improve energy diversity in all sectors of the State's economy. Figure 1 illustrates the diversity in New York's primary energy use and in energy used to generate electricity⁴.

The Energy Plan adopted goals for improving the combined contribution of energy efficiency and renewable energy as a percentage of primary energy used in the State. The State has undertaken several initiatives to improve energy diversity, including investing in energy efficiency through the statewide public benefits program and the energy efficiency programs of the New York Power Authority (NYPA) and Long Island Power Authority (LIPA). Together the State's power authorities and NYSERDA are investing more than \$280 million annually in public benefits programs. Governor Pataki, in his 2003 State of the State address, set a goal of increasing the share of electricity in the State that is provided by renewable energy resources. To achieve the goal, the PSC initiated a collaborative proceeding to develop a renewable portfolio standard (RPS) that will increase the State's share of electricity that is derived from renewable resources from the current level of approximately 17 percent to 25 percent in ten years. The State is also assisting businesses and industries to invest in distributed generation technologies, including combined heat and power, helping develop a biofuels industry in New York, and supporting investment in alternative vehicle technologies and improved energy efficiencies in transportation.

Figure 1



Energy Efficiency and Demand Management. The **New York Energy SmartK** public benefits program, established by the PSC and administered by NYSERDA, is reducing electricity use and peak demand by about 980 gigawatt hours per year and 988 megawatts, respectively, from measures installed through September 2003 (the latest quarter for which data are available). Of this, more than 370 megawatts of reduction potential will benefit the New York City area. These programs result in annual bill reductions of more than \$110 million per year for New Yorkers. Of the 988 megawatts reduction potential, more than 313 megawatts represent firm reductions from permanently installed energy efficiency measures, and the remaining 675 megawatts represent callable reductions available on short notice from customers participating in the special case resources (SCR) program and emergency demand response program (EDRP) of the New York State Independent System Operator (NYISO). The NYISO market-based Day-Ahead Demand Response Program (DADRP) offers retail electricity customers a

⁴ Although not shown in Figure 2, energy use in the State's transportation sector is the least diversified; petroleum products account for more than 98 percent of the energy used in this sector.

chance to bid load-reduction capability in New York's wholesale electric market. To participate, companies bid their load-reduction capability on a day-ahead basis into the wholesale electric market, where these bids compete with generators' offers to meet the State's electricity demands. If the load reduction bid is a less expensive alternative than a generator's offer, it is accepted and the bidder is scheduled to reduce load during specified hours the following day. During the summer of 2002, 1,486 megawatt hours of load reduction bids were accepted over a wide range of hours and days. More than \$100,000 in payments was distributed among the 24 day-ahead program participants. While participation in the DADRP is low, its availability puts energy efficiency and load reduction on a more level playing field with energy supplies.

Collectively, through numerous programs offered by NYSERDA, NYPA, and LIPA, the State's peak demand reduction potential exceeds 1,300 megawatts.⁵ Energy efficiency is helping meet an increasingly large share of the State's energy needs. In addition, the investment in energy efficiency results in large reductions in air and water emissions from power plants and reductions in oil and natural gas used in households, businesses, and industry. The generation of nitrogen oxide and sulfur dioxide credits from these reductions help support continuing economic growth in New York, where offsets are required for new source permitting.

Renewable Energy. As discussed earlier, the PSC instituted a proceeding to develop and implement an RPS for electricity retailed in the State⁶. In order to address increasing concerns about the climate and security effects of over-dependence on fossil-fuel-fired generation, the PSC established, as a working target, that 25 percent of the electricity retailed in New York be provided from renewable resources within ten years. Currently, approximately 17 percent of the State's electricity is generated from renewable resources. In support of this effort, NYSERDA and the NYISO are jointly sponsoring an evaluation of the impact of adding large amounts of wind-generated electricity into the New York power grid. The first phase of the study is complete and a second, more-detailed phase is to be completed by November 2004.

Renewable energy development is also supported by NYSERDA's **New York Energy SmartK** public benefits program and several NYPA and LIPA programs. These programs support retail and wholesale market activities by helping develop and disseminate information, demonstrating renewable energy applications, supporting development of a network of qualified energy practitioners and installers, and supporting "green" power marketers, and directly supporting construction of wind power plants. Through September 30, 2003, NYSERDA has provided financial support for the construction of more than 41 megawatts of wind generation and more than 15 megawatts of green power sales to customers through energy marketers. An additional 500 megawatts of planned wind generation is being supported by NYSERDA.

NYPA and LIPA each have renewable energy programs that are seeking to procure up to 150 megawatts of wind generation and other renewable energy. NYPA's open solicitation for wind projects closed in January 2003 and two projects were selected, representing a total of 50 megawatts. Contract negotiations are under way. In 2003, LIPA received proposals for development of over 200 megawatts of wind resources in response to its solicitation for 100 to 140 megawatts of wind capacity. LIPA is

⁵ The NYISO accounting rules for measuring peak reduction, as defined in the NYISO tariff, are expected to reduce the measured customer participation in the LIPA peak reduction program in 2004 and beyond.

⁶ New York State PSC, Case No. 03-E-0188, *Order Instituting Proceeding*, Issued and Effective February 19, 2003.

expected to make recommendations to its Board of Directors for wind development in the first half of 2004. LIPA will be issuing a request for proposals for up to 10 megawatts of fuel cell capacity early in 2004.

Distributed Generation Technology. The State's public benefits program administered by NYSERDA, is supporting research, development, and demonstration of distributed generation technology applications, including combined heat and power systems, in New York. The systems represent a broad mix of technologies, such as fuel cells and a variety of fuel sources, including biomass, and are generally designed to operate continually, including during periods of system peak demand. The total anticipated peak demand reduction from funds committed to date is approximately 84 megawatts. Approximately half of the anticipated peak demand reduction will occur in the downstate area. The average system size is one megawatt.

Biofuels. Through its alternative fuels vehicle program, NYSERDA is supporting the introduction of two million gallons of biodiesel fuel for use in the State fleet and piloting the use of biodiesel fuel in transit and school buses and in heavy-duty vehicles. In addition, NYSERDA is supporting research to identify and explore potential uses and production technologies for biofuels in the State and helping to create a biodiesel manufacturing capability in New York. A full complement of research and development is under way to support biofuels in the transportation, buildings, and electricity generation sectors.

Alternative Vehicle Technology and Transportation System Efficiencies. The Clean Fuel Vehicles Council and the New York State Department of Transportation (DOT) are leading the way in diversifying fuels used in the transportation sector by increasing the use of and support for alternative fuel vehicles, including ethanol, propane, and compressed natural gas (CNG) vehicles. These efforts include support for vehicle technology and infrastructure development.

DOT is working with local partners to include projects that improve transportation energy efficiency in the State's federal Transportation Improvement Programs. DOT is also providing guidance to its regional offices and municipal planning organizations, helping them to implement the State's energy policies. DOT continues to work closely with utility companies to improve coordination, and therefore efficiency, in relocating utility facilities (*e.g.*, poles, power lines) to ease local roadway improvements. DOT, in collaboration with utilities, is reviewing existing guidelines to improve coordination and local cooperation. Through its alternative fuel vehicle program, NYSERDA has provided financial support for State fleets to procure more than 400 natural gas and hybrid electric vehicles and is helping support development of an ethanol fueling infrastructure.

3. Electricity Markets and Electricity System Reliability

A number of studies are being conducted to evaluate the causes and effects of the extensive northeastern U.S. and Canadian blackout of August 14, 2003. A joint U.S. and Canada Power System Outage Task Force was created and directed to conduct a multi-phase investigation to identify the causes of the blackout and to determine why it was not contained. The Task Force will develop recommendations to reduce the possibility of future outages and minimize the scope of outages that occur. The Task Force released an Interim Report in November 2003. The report classified the causes of the blackout into three categories: (1) inadequate "situational awareness," (2) insufficient management of tree growth in transmission rights-of-way, and (3) failure of the Midwest Independent Transmission System Operator and of Pennsylvania, New Jersey, and Maryland (PJM) Interconnection to provide effective diagnostic support. The Interim Report will be subject to public review and comment before the Task Force

proceeds with Phase II. In Phase II, the Task Force will evaluate opportunities for improving the reliability of the electricity infrastructure and preventing future blackouts and will issue a final report containing related recommendations.

The PSC is conducting its own inquiry of the August 2003 blackout. The PSC inquiry is examining how the events of August 14 occurred, the effect of the events on New York, the activities involved in restoring power after the outage, how to reduce the likelihood of future occurrences, and how to increase the resiliency of all New York's utility services when faced with adverse incidents. The timetable for this inquiry is somewhat contingent upon the work being conducted by the international Task Force, but it is anticipated that a report from the inquiry will be available in early 2004.

With these studies under way, it is important to note that the Planning Board study of the reliability of the State's electric transmission and distribution systems, which was required by Chapter 636 of the Laws of 1999,⁷ concluded that, by all objective measures and compared to other states and regions, New York's electricity system is highly reliable. The State's high level of reliability is a result of close oversight by the PSC and strict adherence by the NYISO and transmission and distribution companies to well developed procedures designed to maintain security of the infrastructure. The primary causes of electric service disruptions continue to be inclement weather and equipment failure, but the policies and procedures in place are ensuring that the outages are not a result of negligence and carelessness and that service is quickly and safely restored. The study also found that new generation is needed, particularly downstate, in order to maintain sufficient reserves. Among other recommendations, the study called for enforceable mandatory minimum reliability standards.

The NYISO changed its installed capacity rules to reduce the volatility of the generators' revenue streams and facilitate construction of new generation and retention of existing units participating in the New York market. In addition to participating in this effort, the New York State Department of Public Service (DPS) participated in a regional effort to determine future capacity procurement requirements. This initiative will help to ensure that adequate resources exist in the future to meet reliability needs.

New generation resources are being approved, particularly in high load areas of the State that have limited transmission capabilities. These resources include new central station generation, small distributed generation resources, and improved load management within transmission constrained areas. Each of these resources improves system reliability. In the last 12 months, two new power plants totaling more than 800 megawatts have been certified under the State's Article X⁸ siting process by the New York State Board on Electric Generation Siting and the Environment (Siting Board). This brings the total of certified new plants to 11, representing more than 6,040 megawatts of new capacity scheduled to come on line by 2008. Five projects totaling 3,000 megawatts remain in the review stage. Another five projects have been publicly announced. These projects would total approximately 12,200 megawatts. Meanwhile, new generation with state-of-the-art emissions controls is benefitting the air quality of the State. NYPA installed several small, clean, natural-gas-fueled power plants in New York City in 2001. Reports^{9,10} published in 2003 offered evidence indicating that such facilities are especially valuable

⁷ New York State Energy Planning Board, *Report on the Reliability of New York's Electric Transmission and Distribution Systems*, Albany, New York, December 2000.

⁸ Article X of Public Service Law expired on January 1, 2003.

⁹ M.J. Bradley & Associates, *Final Report: Independent Environmental Review of NYPA's In-City Generation Natural Gas Small Power Plants*, October 2003. The study was commissioned by NYPA and the

during peak demand periods and that they are among the least polluting power plants in the area.

The Governor's Regional Greenhouse Gas Initiative (RGGI), announced on July 24, 2003, is a multistate effort to design a cap-and-trade program for the region consisting of New York, Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, Rhode Island, and Vermont. Maryland, Pennsylvania, and several Canadian provinces are observing the effort. A draft plan that will include a multistate cap-and-trade program and a model rule will be developed and circulated among the states. The target date for the final agreement is April 2005.

Since June of 2001, four electricity transmission projects have been approved by the PSC under Article VII of the Public Service Law, the longest being a 24 mile 300 megawatt line connecting Connecticut and Long Island under the Long Island Sound. Another eight proposed projects have filed for Article VII certification and are in various stages of review. These projects range up to 135 miles in length and 2,000 megawatts in transfer capability. Another major proposed new electricity transmission project, exceeding 100 miles in length, has been publicly announced but has not filed for Article VII certification.

The PSC and DEC are working, respectively, on issues related to standardization of interconnection requirements and air emissions permitting to facilitate increased use of distributed generation and combined heat and power technologies. Coupled with research and development into new technologies and support for innovative applications through NYSERDA's programs, the State is poised to be a leader in the use of distributed technologies in the U.S. The PSC has instituted several proceedings in 2003 to support further development of a competitive retail electricity market and ease barriers to increased investment in and use of energy efficiency and distributed generation technologies. Specifically, the PSC is interested in identifying remaining barriers, including financial disincentives, to the promotion of energy efficiency, renewable energy, and distributed generation. Reviews of rate structures and bill analyses will be conducted to determine the extent of any existing disincentives.

In developing the 2002 Energy Plan, NYSERDA and the NYISO co-sponsored a study¹¹ of interactions among the natural gas, electricity, and petroleum markets. DPS is now considering a follow-up study that would look in more detail at the ability of the natural gas delivery system to meet the need of electricity generation facilities, with a particular focus on local distribution systems. In a separate but related action, the PSC issued an order¹² on November 4, 2003 calling for a study to examine the ability of the petroleum infrastructure to supply alternative fuels to interruptible natural gas customers on Long Island, in New York City, and in the Hudson Valley, and soliciting NYSERDA's support and expertise in managing the study. NYSERDA and the PSC have initiated steps to competitively select a contractor for the study and hope to have a contractor begin work this spring.

The PSC, at its December 2003 session, initiated an examination of utility companies' flexible rate

Communities United for Responsible Energy (CURE) in cooperation with the Natural Resources Defense Council.

¹⁰ New York Independent System Operator, *Power Alert III: New York's Energy Future*, May 2003.

¹¹ Charles River Associates, *The Ability to Meet Future Gas Demands from Electricity Generation in New York State*, July 2002.

¹² New York PSC, Case No. 00-G-0996, *Order Concerning Interruptible Gas Sales and Transportation Service*, Issued and Effective August 24, 2000.

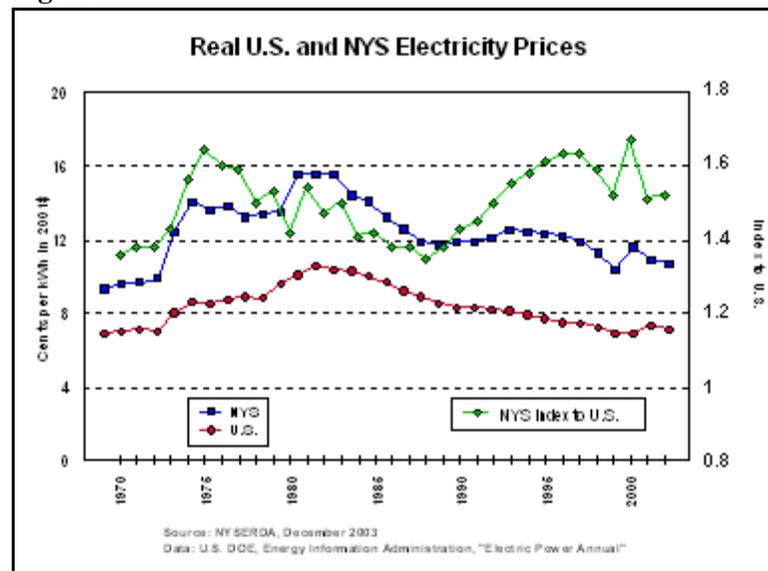
programs. The examination will evaluate current programs to determine whether modifications are necessary to ensure that flexible rate contracts continue to be effective economic development tools in the emerging competitive environment.

In 2002, the New York State Reliability Council (NYSRC) updated its reliability rules to better deal with operational limitations necessitated by the common source supply of natural gas and the availability of back-up fuel. Collaborative efforts among the NYISO, NYSRC, NYSEDA, and DPS are being undertaken to evaluate the natural gas supply infrastructure in New York City and Long Island past the City Gate and to evaluate the capacity of the residential and distillate back-up fuel infrastructures to serve the interruptible gas market. The findings from these studies will assist the NYSRC in establishing additional rules with respect to gas supply arrangements of generators where necessary. In addition, the PSC will determine whether additional actions and requirements are necessary to ensure the adequacy of alternate fuel supplies during periods of interruption.

Regarding electricity prices, progress is being made to reduce the discrepancy between average electricity prices in New York and the average prices nationally. While the State's electricity prices, relative to the national average, have been reduced, as illustrated in Figure 2, they remain higher than the national average. New York's average electricity price differential has declined from 1.6 times higher in 1995 to 1.5 times higher in 2002, the latest year for which comparative data are available. Figure 2 depicts these average price trends, illustrating the differences between the national average and the New York average electricity prices for the period 1970 through 2002.¹³

New York uses more natural gas and petroleum as a percentage of fuels used in electricity generation than the U.S., at 26 percent and 11 percent, respectively, compared with 15 percent and 2 percent respectively for the U.S. Nationally, natural gas constitutes 15 percent and petroleum constitutes 2 percent of fuels used in electricity generation. Natural gas and petroleum prices are set in world and national markets and reflect rapidly changing demand and supply conditions. The effect of these rapid changes in market conditions is high volatility in natural gas and petroleum product prices, which in turn creates greater price volatility in New York, relative to national average prices. For each natural gas and petroleum product price increase, the State's price differential increases, as New York is more reliant on these fuels than the U.S. Even given this effect, it is noteworthy that New York has narrowed the differential between its average electricity price and the national average electricity price over the past decade.

Figure 2



¹³ Average electricity prices are defined as revenue from electricity sales divided by sales to ultimate customers and are used as a proxy for average unit price. The source of this data is the U.S. Department of Energy, Energy Information Administration (U.S. DOE-EIA).

Transportation

To meet the needs of the public in a global economy, DOT is in the process of transforming itself and working with other transportation agencies to transform how transportation facilities and services are managed in New York State. To do this, two primary roles are needed: a transportation integrator (who guides all elements of the transportation system and focuses on the performance of the system as a whole) and a transportation service operator (who builds, operates, and maintains various parts of the system). To effectively manage the transportation system, performance measures are being devised to track progress in meeting priority areas of the transformed transportation system. Two key performance measures will be energy use and air quality.

DOT, in cooperation with other transportation groups, is working to implement all transportation-related recommendations in the State Energy Plan. This will continue to be an important priority area for DOT. Significant progress has already been made to address the energy efficiency and greenhouse gas reduction goals in the Energy Plan, to reduce emissions from mobile sources, and to improve mobility.

Comprehensive Tracking of Energy Plan Implementation

_____The attached tracking matrix (Appendix A) provides a comprehensive overview of the implementation of Energy Plan recommendations. The activities identified represent a significant commitment of resources of State government to consumers, security of energy supplies and infrastructures, improved environmental quality, and the fair delivery of services for all New Yorkers.

Energy Plan Forecasts and Current Outlook

The findings and recommendations contained in the Energy Plan continue to be valid and timely and should continue to be implemented as expeditiously as practicable. The assumptions and analyses that provide the basis for the Energy Plan's policies and recommendations have not changed significantly in any way that might warrant a reconsideration of direction and guidance provided in the Energy Plan. Forecasts of energy demand and prices, across all fuels, have been updated to reflect the latest available forecasts by the United States Department of Energy, Energy Information Administration (U.S. DOE EIA). The updated forecasts do not differ significantly from the forecasts underlying the Energy Plan. Therefore, changes to the assumptions and conditions that formed the basis for the policies and recommendations contained in the Energy Plan are not warranted.

Table 2 compares the updated draft forecasts derived from U.S. DOE EIA to the Energy Plan forecasts for annual growth rates in electricity and peak electric demand. Demand forecasts for fossil fuels, while not completed as of this writing, are not expected to vary significantly from the demand forecasts in the Energy Plan. Forecasts of fossil fuel prices and electricity prices have also not been completed.

Table 2: Forecast Comparison of New York’s Annual Growth Rate in Electricity and Peak Demand with U.S. DOE EIA New York Adjusted 2003 Draft Forecast

Year	Energy (GWh)		Peak (megawatts) ¹⁴	
	Modified EIA 2003 Forecast	2002 State Energy Plan	Modified EIA 2003 Forecast	2002 State Energy Plan
2003	1.8%	1.6%	1.9%	1.3%
2004	1.5%	1.5%	1.7%	1.4%
2005	1.3%	1.5%	1.2%	1.8%
2006	1.4%	1.3%	1.2%	1.3%
2007	2.3%	1.5%	2.3%	1.4%
2008	1.9%	1.4%	1.7%	1.2%
2009	1.5%	1.3%	1.4%	1.4%
2010	1.2%	1.3%	1.1%	1.2%
2011	1.2%	1.2%	1.1%	1.1%
2012	1.0%	1.0%	0.9%	0.9%
Average Annual	1.5%	1.4%	1.5%	1.3%

MAJOR ENERGY SUPPLIER FILINGS

Prior to the expiration of Article 6 of the Energy Law on January 1, 2003, major energy suppliers in New York were required to file information and data with the Planning Board¹⁵. The information was required to be filed by July 1 each year, however, certain forecast and petroleum data were required to be filed only in even-numbered years. Regulations promulgated by the Planning Board¹⁶ identified the specific types of information which major energy suppliers in various categories were required to file, including:

- A twenty-year forecast of energy demand and supply requirements,
- An assessment of existing supply resources,
- An inventory of electric generation and transmission facilities,

¹⁴ The 2002 State Energy Plan peak demand forecast accounted for the impacts of the NYISO’s Energy Demand Response Program and Special Case Resources. Since such resources are applied on a very limited basis (22 hours in 2002 and 24 hours in 2003), they have not been incorporated in the 2003 modified forecast.

¹⁵ Separate filing requirements applied to the following groups of energy suppliers: the New York Power Pool (precursor to the New York Independent System Operator); the New York Gas Group; petroleum suppliers; petroleum pipeline and barge operators; coal suppliers; alternative power producers; intrastate natural gas pipeline companies; and municipally operated electric utilities.

¹⁶ Title 9 NYCRR Parts 7840-7863.

- Research and development plans,
- Energy price projections,
- Load forecasting methodologies, and
- Proposed policies, objectives, and strategies for meeting the State's future electricity needs.

With the expiration of Article 6, several proposals to continue this effort have been introduced in the State Legislature. In lieu of a legislative mandate, NYSERDA, which had served as the records access and secretariat organization to the Planning Board, sought voluntary compliance with Planning Board regulations until such time as new energy planning legislation is adopted. Such voluntary filings help maintain a consistent data set for planning and policy purposes.

The response to the call for voluntary filings was very positive and the discussion below briefly summarizes the information and data provided in 2003¹⁷ by major energy suppliers in the electricity, petroleum, natural gas, and coal industries.

Electricity (9 NYCRR Parts 7857, 7861, and 7863)

Alternative power producers, transmission facility owners, municipal electric utilities, and the New York Independent System Operator (NYISO)¹⁸ filed information with the Planning Board. The NYISO's 2003 *Load and Capacity Data* filing provides electricity system information, including:

- Forecasts of peak load, energy requirements, and demandside management,
- Existing resource capacity and planned changes,
- Existing and proposed transmission facilities, and
- Normal power transfer limits.

2002 Electricity Requirements. The filings show that New York's total electric energy requirements for 2002 were 158,740 gigawatt hours, with net imports providing approximately 15,400 gigawatt hours or 10 percent of the total. Imports accounted for only 7.5 percent of New York's electric requirements in 2001.

Growth Forecast. The transmission owners, in aggregate, forecast a 1.1 percent annual peak load growth rate and a 1.3 percent annual energy requirement growth rate for the years 2003 through 2022. This compares to the Energy Plan's forecasted annual growth bandwidths of 0.75 to 1.23 percent for peak and 0.76 to 1.32 percent for energy from 2002 through 2020.

Generation Reserves. Assuming the 18 percent reserve margin requirement established by the New York State Reliability Council (NYSRC) remains in effect, the NYISO projects that in-state existing and planned generation capacity plus known purchases and sales with neighboring control areas should

¹⁷ Data and information filed by major energy suppliers are reported for the preceding calendar year, in this case, for the year 2002. For major petroleum suppliers for which data and information is filed only in even numbered years, two preceding calendar years of data and information are reported.

¹⁸ On December 1, 1999, the NYISO assumed responsibility for the operation of New York State's bulk power system and the newly established wholesale electric energy markets. Prior to December 1, 1999, operation of the bulk power system was the responsibility of the New York Power Pool (NYPP) which had specific statutory and regulatory responsibility for filing electric system information with the Board. Since its inception, the NYISO has fulfilled the filing responsibilities of the former NYPP.

provide sufficient generation capacity to meet the reserve requirement through 2015. The NYISO projection assumed approximately 9,582 megawatts of new capacity would become available through 2007. The 9,582 megawatts represent the capacity of units approved by the Article X Siting Board, proposed units with applications accepted but not yet approved by the Siting Board, and other smaller projects as of the date of the NYISO's filing. For comparison, the Energy Plan's "Reference Resource Scenario" assumed that 5,224 megawatts of new Article X capacity could become available, along with another 1,000 megawatts of out-of-state capacity committed to New York, to satisfy the resource requirements of the State through most of the planning period, for a total addition of 6,224 megawatts.

Figure 3 provides New York's in-state 2002 summer electricity generating capacity by NYISO transmission zone. Long Island, Zone K, showed the greatest zonal capacity increase from 2001, a 541 megawatt increase. New York City and Long Island, Zones J & K collectively, were home to approximately 37 percent of New York State's summer 2002 electricity generating capacity, up from 36 percent in 2001. For comparison purposes, the summer 2002 systemwide integrated peak hour demand was 30,662 megawatts and New York City and Long Island were responsible for 15,393 megawatts of that demand or 50 percent. In 2003, New York City and Long Island accounted for 15,233 megawatts of the integrated summer peak demand of 30,333 megawatts, also 50 percent. Table 3 lists summer generation capacity by fuel source and NYISO transmission zone as of January 1, 2003.

Figure 3

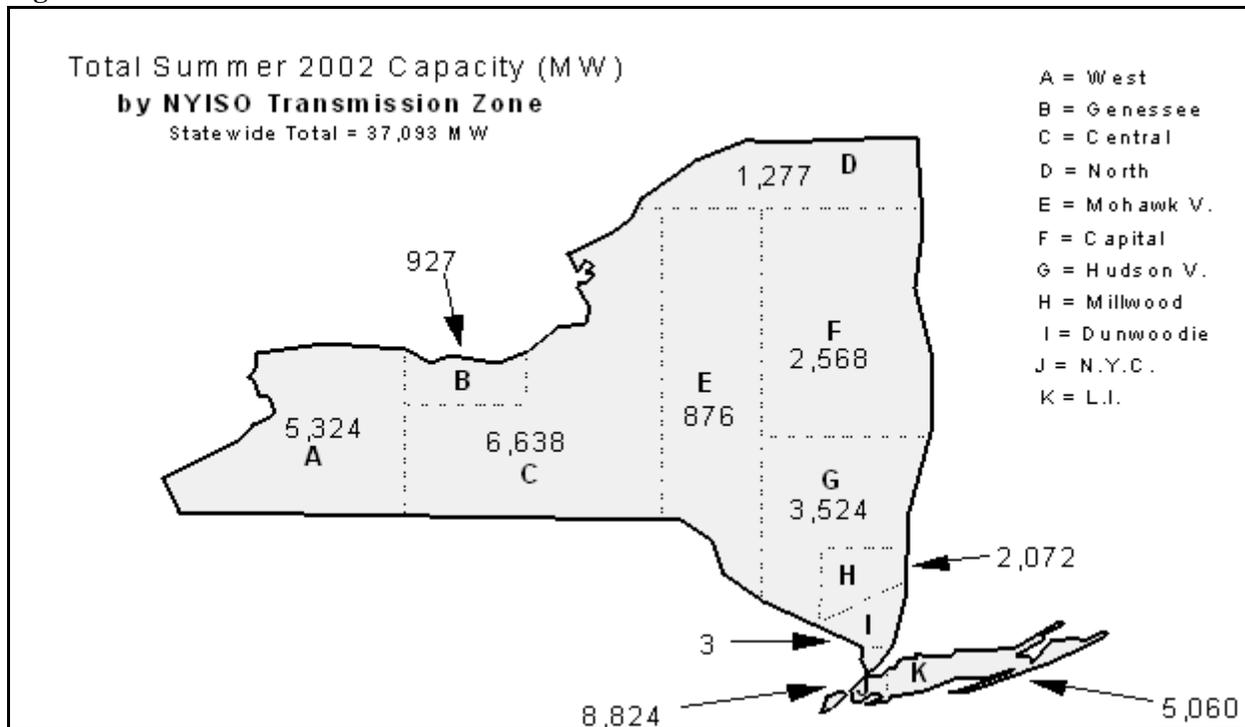


Table 3

Approximate 2002 Summer Capacity by Type & Transmission Zone (megawatts)												
Type	NYISO Transmission Zone											
	A	B	C	D	E	F	G	H	I	J	K	NYS
Natural Gas Only	315	131	449	320	331	300	0	0	0	1,360	796	4,002
Petroleum Only (#2 or #6)	1	14	1,689	2	0	0	41	46	0	810	1,150	3,753
Dual-Fueled (NG & Oil)	192	0	1,034	0	0	779	2,651	0	0	6,654	2,994	14,304
Nuclear	0	498	2,606	0	0	0	0	1,975	0	0	0	5,079
Coal	2,087	247	674	0	52	0	723	0	0	0	0	3,783
Hydro	2,692	30	122	937	465	1,477	100	0	3	0	0	5,826
Other (Wood, Refuse, Wind)	37	7	64	18	28	12	9	51	0	0	120	346
Totals	5,324	927	6,638	1,277	876	2,568	3,524	2,072	3	8,824	5,060	37,093

Response to Request for Voluntary Filing. Alternative power producers, transmission owners, and municipal electric utilities filed information regarding generation units they owned and operated during 2002. A total of 91 filings, representing more than 600 generating units, has been received as of December 2003. Some electricity generators submitted a single filing providing data for all their facilities, while others provided separate filings for individual generating stations. Generation owners have submitted filings representing approximately 84 percent of New York State's summer 2002 generation capacity.

Petroleum (9 NYCRR Part 7859)

Under Planning Board regulations, major petroleum product suppliers and transporters were required to file reports with the Board in alternate years. The reports would provide data covering the previous two calendar years. Since such suppliers filed reports with the Energy Planning Board in 2002, NYSERDA did not request voluntary reports from them in 2003. However, the following summary information comes from NYSERDA's regular petroleum industry monitoring activities. In 2002, the use of refined petroleum products accounted for 40 percent of total statewide primary energy consumption. Motor gasoline use represents the largest share (43%) of petroleum use, followed by distillate fuel oil (27%) which is also used for transportation and for space heating. Considering all petroleum products used in New York, 66 percent is used to transport goods and people, 13 percent is used in residences, 10 percent is used for electricity generation, and 9 percent is used in the commercial sector.

Natural Gas (9 NYCRR Parts 7858 and 7862)

On January 1, 2003, the New York Gas Group and the New England Gas Association joined to form the Northeast Gas Association. As the successor to the New York Gas Group, the Northeast Gas

Association voluntarily filed an annual energy supplier report on behalf of its New York members¹⁹. Six major interstate natural gas pipeline companies servicing New York State voluntarily filed annual energy supplier reports with NYSERDA.²⁰ As was allowed by the Planning Board's regulations, the pipeline companies submitted a copy of their respective Federal Energy Regulatory Commission (FERC) Form 2, which includes detailed information on pipeline capacity, contract quantities, and deliveries. The following are some highlights of the natural gas information provided to NYSERDA.

Customers Served. As of October 31, 2002, New York had approximately 4.6 million natural gas customers. Residential customers numbered approximately 4.16 million; commercial and industrial customers numbered 398,098. By contract type, New York had 4,181,526 firm customers,²¹ 1,593 interruptible customers,²² and 371,127 transportation service customers.²³

Natural Gas Prices. In the twelve-month period that ended October 31, 2002, the composite delivered cost of natural gas to all firm sales customers ranged from \$5.58 to \$11.04 per dekatherm (one million Btu). The range for firm sales residential heating customers was \$6.22 to \$12.76 per dekatherm and for firm sales commercial/industrial customers was \$5.12 to 9.36 per dekatherm. The composite average delivered cost for interruptible gas service ranged from \$4.24 to \$5.99 per dekatherm.

Natural Gas Demand. In the twelve month period that ended October 31, 2002, total demand equaled 1,206,346 thousand dekatherms (MDT), with firm service demand totaling 449,489 MDT, interruptible demand at 70,564 MDT, electricity generation demand at 370,530 MDT, and transportation service demand at 240,719 MDT.

¹⁹ The Northeast Gas Association is the natural gas association for the local distribution companies (LDCs) in New York State and New England. The New York members of the Northeast Gas Association include: Central Hudson Gas and Electric Corp.; Consolidated Edison Company of New York, Inc.; Corning Natural Gas Corp.; KeySpan Energy Delivery (New York and Long Island); National Fuel Gas Distribution Co.; New York State Electric & Gas Corp.; Niagara Mohawk, a National Grid Company; Orange & Rockland Utilities, Inc.; Rochester Gas & Electric Corp.; and St. Lawrence Gas Company, Inc.

²⁰ The pipeline companies that filed information in 2003 are: Columbia Gas Transmission; Dominion Transmission, Inc.; Iroquois Gas Transmission System; National Fuel Gas Supply Co.; Texas Eastern Pipeline Co.; and Transcontinental Gas Pipe Line Corp.

²¹ Firm service refers to the delivery of natural gas without interruption to a customer. This service generally is the highest priority and provided at a higher cost. Residential and small commercial and industrial customers are usually firm service customers and transportation customers may be firm service customers.

²² Interruptible customers receive the delivery of natural gas subject to interruption of service at the discretion of the utility, generally because of system supply and capacity limitations. Interruption may be manually controlled by the utility or may be automatic, based on outside temperatures. Interruptible customers generally pay a discounted rate for natural gas service.

²³ Transportation service customers purchase natural gas from a supplier other than their local gas distribution company (LDC), but the LDC transports and delivers the gas through its pipeline system.

Other information of interest from previous years' filings and still relevant today include the following:

- The majority of New York's natural gas comes from U.S. domestic supplies, primarily from the Gulf Coast. A significant portion of the remainder comes from western Canada. New York is also interconnected with a pipeline network that now has access to offshore supplies in eastern Canada.
- New York has over 54,000 miles of natural gas pipeline, an increase of nearly 16 percent since 1990.
- Net interstate natural gas pipeline capacity is approximately 5.1 billion cubic feet per day.

Coal (9 NYCRR Part 7860)

Under the former Planning Board's regulations, coal suppliers were required to file information only at the request of the Chair of the Planning Board. No information was required to be submitted in 2003. However, NYSERDA monitors coal use in New York by regularly reviewing data compiled by the U.S. DOE EIA. In 2002, coal accounted for 7 percent of total statewide primary energy consumption. In particular, coal accounts for 13 percent of electricity generation in New York, compared to more than 53 percent in the United States as a whole.

No.	State Energy Plan Recommendation Progress to Date
<p>Policy Objective 1. Supporting the continued safe, secure, reliable operation of the State’s energy and transportation systems infrastructures.</p>	
<p>1.A.</p>	<p>The State will continue its study of the security of New York’s energy infrastructure used for production, storage, and delivery. The study will include a risk and vulnerabilities assessment and recommendations for appropriate actions and will be conducted cooperatively by the Office of Public Security, appropriate Energy Planning Board agencies, and major energy market participants, in cooperation with appropriate federal agencies.</p> <ul style="list-style-type: none"> • The New York State Office of Public Security (OPS), with support from the Federal Bureau of Investigation, NYSERDA, and the State Emergency Management Office, concluded a detailed review of security at the Indian Point nuclear power plants in December 2001. The review found security at the plants to be robust and offered a series of recommendations for making it even stronger. • During 2002, NYSERDA and the New York State Departments of Environmental Conservation, Health, and Labor participated with OPS and the United States Department of Energy (U.S. DOE) in a study of security at radioactive material facilities in the State. A report was completed in December 2002. • Following the terrorist attacks of September 11, 2001, the New York State Department of Public Service (DPS) staff consulted with officials from New York’s telephone and energy utilities regarding their security preparedness. In 2002, DPS staff recommended that the utilities retain third-party consultants and experts to evaluate the adequacy of their physical and cyber security arrangements. The evaluations were completed in 2003. • In 2003, the New York State Legislature enacted Chapter 403 of the Laws of 2003 requiring that OPS initiate a review of security measures currently in place to protect the State’s critical energy generation and transmission infrastructure. The review is expected to be completed by the end of 2004. • In July 2003, the Office of Utility Security was formed within the New York State Department of Public Service. This office, reporting directly to the Chairman of the New York State Public Service Commission (PSC, the Commission), has been directed by the Chairman to undertake a broad role in ensuring the security of New York’s energy and telecommunications infrastructure. Through close coordination and partnership with federal and other state security and public safety agencies, the Office of Utility Security will provide a uniquely focused perspective on the information sharing needs required as <p>a result of current threat situations. Working on a regular and consistent basis with security personnel at the State’s utilities, the staff of the Office of Utility Security will maintain a focus on the need to implement and maintain high security standards and practices within the State’s private sector utilities. This task will be realized by providing a balance of education, advocacy, threat awareness briefings, technical guidance, and regulatory inspections and monitoring.</p> <ul style="list-style-type: none"> • In August 2003, the PSC directed the State’s twelve largest utilities to prepare security action plans detailing how the recommendations that followed Commission-ordered security audits would be effectuated. Those action plans will be submitted to the Commission in December 2003. Office of Utility Security review of the plans for adequacy and completeness will immediately follow. Implementation of security enhancements called for in these plans will serve as the basis for much of the PSC security related oversight during 2004. In addition, Office of Utility Security staff have established an effective working dialogue with security personnel at the energy and telecommunications utilities. • During 2002 and 2003, the U.S. DOE, Office of Energy Assurance, in conjunction with OPS, completed a critical infrastructure security assessment for the State. U.S. DOE surveyed the security of the New York power grid, the New York electricity utilities, natural gas pipelines, and natural gas distribution companies, as far as terrorism threats are concerned. The U.S. DOE study team included input from the Energy Planning Board agencies, staff of the national laboratories and other experts, staff from DPS and OPS. The work product has been incorporated into the Department of Homeland Security’s national infrastructure protection program.

No.	State Energy Plan Recommendation Progress to Date
1.B.	<p>The State supports investments in natural gas and electricity transmission and distribution system infrastructures, including consideration of multiple redundancies, shared design practices, shared inventories, and flexibility necessary to ensure continued safe and reliable system operation.</p> <hr/> <ul style="list-style-type: none"> • The safe, reliable operation of electric utilities is enhanced by information sharing among utilities. The mergers of New York State Electric and Gas (NYSEG) with Rochester Gas and Electric (RG&E) and Niagara Mohawk Power Authority with National Grid New England in 2002, as well as the previous merger of Consolidated Edison of New York (Con Edison) with Orange and Rockland (O&R) have resulted in sharing of inventories, work forces, and best practices for safety and reliability. Some electric utilities are also developing reliability centered maintenance programs through the use of new metering, testing, and software technologies. • In 2002, the combined construction budgets of the major local natural gas distribution companies (LDCs) totaled approximately \$490 million. Of this amount, approximately 96 percent was spent on distribution system improvements. In 2003, the total rose to more than \$600 million, of which approximately 90 percent was spent on distribution system improvements. • The PSC intervened with the Federal Energy Regulatory Commission (FERC) in support of pipeline projects to increase natural gas pipeline delivery capacity to New York. These interventions included support for the Millennium, Iroquois Eastchester, and Islander East projects, all of which have been approved by the FERC. Successful completion of these projects is uncertain. • The Electric System Planning Working Group (ESPWG) was created by the NYISO to meet a FERC requirement for a regional transmission organization to administer a comprehensive planning process within its region. The ESPWG is composed of market participants from all sectors who will work to identify electric system reliability needs in New York State. While the working group will not recommend specific solutions to meet identified needs, the ESPWG, under direction from the New York Independent System Operator (NYISO), will evaluate proposed solutions (<i>e.g.</i>, transmission, generation, and demand response proposals) to ensure the State's needs will be met in an acceptable time frame. • The New York Power Authority (NYPA) is completing the final commissioning tests for the Convertible Static Compensator (CSC) at its Marcy substation. The CSC, combined with the two capacitor banks added by NYPA at the Edic (National Grid) and Oakdale (New York State Electric & Gas Corporation) 345 kilovolt substations, allows higher megawatt flows on existing cross-state interfaces. The previously commissioned CSC configurations and capacitor banks resulted in an increase of 100 megawatts on the Utica-Albany transmission corridor and 192 megawatts statewide. The final CSC configurations undergoing commissioning tests will provide added flexibility in the operation of the transmission system. • NYSERDA and the New York Independent System Operator (NYISO) are jointly sponsoring an evaluation of the impact of adding large amounts of wind-generated power into the New York grid. The first phase of the study is to be completed by January 31, 2004 with a second, more detailed phase, to be completed by November 2004. • Con Edison is addressing short-circuit issues on its transmission system into the City by installing new equipment at the Dunwoodie and Sprainbrook Substations. The work is expected to be completed by the end of 2004. • Con Edison and DPS are assessing the reliability of Con Edison's distribution system to ensure that appropriate infrastructure improvements are completed in time for the 2004 summer period. • Since June of 2001, four electricity transmission projects have been approved by the Public Service Commission under Article VII of the Public Service Law, the longest being a 24 mile 300 MW line under the Long Island Sound connecting Connecticut and Long Island. Another eight proposed projects have filed for Article VII certification and are in various stages of review. These projects range up to 135 miles in length and 2000MW in transfer capability. A major new electricity transmission project, exceeding 100 miles in length, has been publicly announced but has not filed for Article VII certification.

No.	State Energy Plan Recommendation Progress to Date
1.B. (con'd)	<ul style="list-style-type: none"> • The PSC approved (under Article VII of the Public Service Law) several projects to expand the pipeline infrastructure within New York including: <ul style="list-style-type: none"> – An upgrade of Niagara Mohawk’s existing Putnam Road pipeline serving Saratoga and Warren counties. – Construction of 2.3 miles of pipeline from the Texas Eastern gate station to the Arthur Kill generating facility on Staten Island. – Construction of over eight miles of pipeline in Schuylcr and Chemung Counties to permit the delivery of gas from the Trenton/Black River formation to NYSEG’s transmission and storage facilities. – Construction of 1.3 miles of pipeline in Suffolk County to provide gas service to the proposed 250 megawatts electric generator, the Spagnoli Road Energy Center. – Construction of about 2 miles of 12-inch high pressure pipeline to serve new natural gas fired generation facilities in the Village of Freeport, Long Island. – Construction of approximately six miles of high pressure pipeline and associated compressors to deliver gas from the Trenton Black River formation to interstate pipeline facilities. <ul style="list-style-type: none"> • See 3.A.3.
1.C.	<p>The State requests that the New York Independent System Operator (NYISO) consider the certainty and availability of primary and backup fuels in valuing capacity from electricity generators in order to ensure that the reliability of the electricity, natural gas, and petroleum supply and delivery infrastructures would not be adversely affected if generator fuel supplies are disrupted. As an alternative, NYISO should consider the certainty and availability of primary and backup fuels in establishing local reliability rules.</p> <hr/> <ul style="list-style-type: none"> • In 2002, the New York State Reliability Council (NYSRC) updated its reliability rules to better deal with operational limitations necessitated by the common source supply of natural gas and the availability of back-up fuel (I-R3, Loss of Generation Gas Supply, New York City and Long Island). • A collaborative effort between the NYISO, the NYSRC, NYSERDA, and DPS Staff is being undertaken to identify whether the NYSRC needs to establish additional rules with regard to gas supply arrangements of generators. Following an initial meeting, a scope of work is being developed. • On November 4, 2003, the PSC issued an <i>Order Concerning Interruptible Gas Sales and Transportation Service</i> in case No. 00-G-0996. In that <i>Order</i>, the Commission determined that: (1) changes in the interruptible alternative fuel inventory requirements are not necessary at this time; (2) LDCs must provide prior notice of the occurrence and expected duration of interruptions in gas service and operational flow orders and provide system alerts upstream and downstream of the citygate; and (3) LDCs must alert interruptible customers whenever accumulated gas service interruptions exceed five days prior to February 15. The <i>Order</i> also stated that the Commission will commence a limited study of the domestic heating industry’s infrastructure with respect to distillate and residual fuels used to serve the interruptible gas market. NYSERDA has been invited by the DPS to manage the study. <p>Following completion of this study, the PSC will determine whether additional actions and requirements are necessary to ensure the adequacy of alternate fuel supplies during periods of interruption.</p>
1.D.	<p>The State supports greater energy diversity in all sectors of the economy through investments in technology and infrastructure development for indigenous and renewable fuels, demand reduction techniques, and energy efficiency, to reduce the risks associated with single fuel dependency and price volatility. In addition, the State supports the continued safe operation of nuclear, coal, natural gas, oil, and hydroelectric generation as part of a diverse portfolio of electricity generation resources.</p> <hr/> <ul style="list-style-type: none"> • In 2002, certificates were issued by the New York State Board of Electric Generation and the Environment for new highly energy efficient power generating plants for (1) NYPA’s 500 megawatt combined cycle generating plant to be built in Astoria, Queens adjacent to the Poletti Power Project, (2) Calpine Corporation’s Wawayanda Energy Center, a 540 megawatt plant planned for Orange County, and (3) a 580 megawatt plant to be built by Brookhaven Energy, L.P. in Brookhaven, Long Island. • In 2002 and 2003, NYPA and the Long Island Power Authority (LIPA) issued solicitations for a total of 150 megawatts of renewably generated power.

No.	State Energy Plan Recommendation Progress to Date
<p>1.D. (Con'd)</p>	<ul style="list-style-type: none"> • In 2003, through the Governor’s Coordinated Demand Response Working Group, NYPA, LIPA, DPS, and NYSERDA achieved critical peak load reductions of approximately 1,500 megawatts during the summer of 2003 by implementing energy efficiency and curtailable-load-reduction measures. Of that total, nearly 400 megawatts of reductions were achieved in New York City. The NYISO’s accounting rules for peak reduction, as defined by the NYISO tariff, is expected to reduce the measured customer participation in the LIPA peak reduction program in 2004 and beyond. See 2.D.2. • The PSC established an environmental disclosure program that identifies the sources of electricity supplied by utilities and energy services companies and enables consumers to identify and choose renewables and traditional energy supplies. • As an outcome of the merger of Niagara Mohawk and National Grid, Niagara Mohawk will purchase renewably generated electricity (green energy) for those customers willing to pay a price premium. Within two months of the program’s introduction in September 2002, more than 3,000 customers had signed up to purchase green energy. This program has continued aiding the development of the renewable industry in New York State through 2003. • As part of the New York Energy SmartK Program, NYSERDA is bringing businesses to New York State that will sell green power into the competitive market. As of October 31, 2003, NYSERDA’s programs were supporting the sales activities of four retail green power marketers, and NYSERDA is negotiating contracts with five developers to build up to 500 megawatts of new wind energy facilities in New York State. • In June 2003, Con Edison issued a Request for Proposals seeking 125 megawatts in demand reductions to offset planned reinforcements to its local distribution system. The bids are being evaluated. The projects are for reductions in peak load and will have a positive impact on capacity, reduce installed capacity (ICAP) costs, reduce peak energy revenues, and have a positive impact on baseload facilities. • On October 8, 2003, the New York State Department of Environmental Conservation issued a \$401 Water Quality Certification for the R.E. Ginna Nuclear Power Plant as part of RG&E’s application for federal license renewal. The license renewal is likely to be granted, and will extend the life of the plant from 2009 through 2029. • New York State is aggressively pursuing alternatives to conventional power plants, including distributed generation, combined heat and power systems, liquified natural gas, wood chips, and methanol. These systems receive support through the State’s system benefits charge program, including \$15 million a year to support combined heat and power technology development and innovative demonstrations. This program has dedicated \$45 million to combined heat and power to date, with about 90 megawatts of capacity expected to come on line, and has attracted more than \$100 million in co-funding from program participants. • Overall, NYSERDA’s New York Energy SmartK Program is making the State more energy efficient. About 690 gigawatt-hours of electricity are currently being saved each year by program participants. • In 2002, Con Edison issued a Request for Proposals seeking 500 megawatts of new in-City generation or new generation located elsewhere paired with new transmission to deliver the power to New York City. Astoria SCS, which has Article X approval for a 1,000 megawatt plant in the borough of Queens, was the winning bidder. A contract was signed in April 2003 and contains an in-service date requirement of May 1, 2006. • In 2003, the Federal Energy Regulatory Commission (FERC) issued NYPA a new 50-year license to operate the 900 megawatt St. Lawrence-FDR hydroelectric power project in Massena, New York, based on a cooperative consultation process involving federal and state agencies, local municipalities, environmental groups, and business and labor representatives. NYPA has initiated a 15-year, \$245 million life extension and modernization program to replace the project’s 16 turbine generators. Using a FERC-approved alternative licensing process providing for enhanced public participation, NYPA has begun efforts to relicense the 2,400 megawatt Niagara hydroelectric power project. The current license expires in 2007. A \$292 million modernization program is in the process of replacing the Niagara Project’s 13 turbine generators. Work is scheduled for completion by 2006. • See 3.A.1.a., 3.A.2., 3.A.5., and 3.B.2.

No.	State Energy Plan Recommendation Progress to Date
1.E. 1.E.1.	<p>The State will continue its efforts to reduce traffic congestion and delays and increase energy efficiency in transportation through a complement of actions that include supporting public transit, transportation management, intelligent transportation systems, and capital construction.</p> <hr/> <p>The State will work to ensure that transportation planning and construction is compatible with current and planned community development.</p> <hr/> <ul style="list-style-type: none"> In recent updates of three-year federal Transportation Improvement Programs, the New York State Department of Transportation worked with local partners to incorporate projects consistent with the State Energy Plan and to address the plan's recommendations. Additional guidance is being provided to regional offices and Municipal Planning Organizations regarding the State Energy Plan's recommendations.
1.E.2.	<p>The State supports expanding intermodal freight capabilities as a means to reduce transportation sector energy use.</p> <hr/> <ul style="list-style-type: none"> The State is working to expand intermodal freight capabilities in all parts of the State. In upstate New York, construction of facilities in Buffalo, Rochester, and Plattsburgh is proceeding or has been recently completed. Downstate, the State is evaluating the use of the former Pilgrim State Hospital site as an intermodal terminal. Improvements are also planned for the intermodal facilities at Harlem River Yard and the Hunts Point Terminal. See 1.E.
1.E.3.	<p>The State's emphasis on maintaining its existing transportation infrastructure through capital construction programs will be continued.</p> <hr/> <ul style="list-style-type: none"> See 1.E.
1.E.4.	<p>The State will work more closely with utility companies to better identify and, if possible, design project work around utility facilities. The State will work in partnership with municipal governments to accomplish this objective for municipal projects.</p> <hr/> <ul style="list-style-type: none"> New York State Department of Transportation and the utility industry have continued the executive-level partnering effort, begun in 2002, to review and revise guidelines for coordinating with the utility industry. Highway Design Manual Chapter 13 was issued in June 2003 and incorporated much in the way of utility coordination improvements. These improvements include a clearer message to designers to avoid utility relocations where possible. Through the executive-level partnering effort, the utility industry was given the opportunity to participate and provide comments during the drafting of the chapter.

No.	State Energy Plan Recommendation Progress to Date
Policy Objective 2. Stimulating sustainable economic growth, technological innovation, and job growth in the State's energy and transportation sectors through competitive market development and government support.	
2.A.	<p>The Energy Planning Board recommends reauthorization of Public Service Law Article X, scheduled to expire on January 1, 2003, relating to the siting of new major electric generating facilities.</p> <hr/> <ul style="list-style-type: none"> In 2003, the Governor introduced a program bill to address power plant siting. Several legislative proposals have passed the Senate or the Assembly but consensus has not materialized. The legislature is expected to again address Article X reauthorization during the 2004 legislative session.
2.B.	<p>The Energy Planning Board recommends reauthorization of Article 6 of the Energy Law, for statewide energy planning, scheduled to expire on January 1, 2003. Modifications should include reducing the forecasting period for energy demand and prices from 20 years to 10 years and changing statutory language to reflect changes in the electricity industry.</p> <hr/> <p>2.B.1. With respect to the reauthorization of Article 6, the Energy Planning Board should meet annually to coordinate development and implementation of energy-related strategies and policies, receive reports from the agencies' staffs on the compliance of major energy suppliers with its information filing requirements, and receive summary reports on the information filed.</p> <hr/> <p>2.B.2. With respect to the reauthorization of Article 6, the information filing regulations of the Energy Planning Board should be modified to recognize new entrants into the energy marketplace and the need for pertinent energy-related information and data.</p> <hr/> <ul style="list-style-type: none"> In 2003, the Governor introduced a program bill to address Article 6 reauthorization. Several legislative proposals have passed the Senate and Assembly but consensus has not materialized. The legislature is expected to again address Article 6 reauthorization during the 2004 legislative session.

No.	State Energy Plan Recommendation Progress to Date
<p>2.C.</p> <p>2.C.1.</p> <p>2.C.2.</p>	<p>The State supports working expeditiously toward establishing a regional market in the northeastern portion of the country.</p> <hr/> <p>The State will continue to participate in negotiations to bring about a larger, regional common market in order to ensure the incorporation of best practices of the New York Independent System Operator (NYISO) and fair representation by market participants, including affected state governments, within the common market governance structure.</p> <hr/> <p>Any system developed for merging the NYISO into a larger market must be designed to incorporate appropriate State and local reliability requirements and ensure that short-term economic pressures do not adversely affect the reliable operation of New York’s integrated electric system.</p> <p>In addition, any future system must allow full participation of demand management resources in the competitive procurement process.</p> <hr/> <ul style="list-style-type: none"> • The New England Independent System Operator (ISO-NE) and the NYISO filed a joint proposal to the FERC in August 2001 to create a regional transmission organization. Following issuance of FERC’s Standard Market Design (SMD), the NYISO and ISO-NE withdrew the proposal to focus on further developments of a northeast SMD. The State continues to advocate for a larger regional market, and DPS staff is actively engaged in the SMD process. • The ISO-NE filed for Regional Transmission Organization status with the FERC. Achievement of this status for the ISO-NE is expected to foster regional markets by reducing the operational barriers known as seams and decreasing the duplication or “pancaking” of rates. <p>The biggest seams issues, other than elimination of pancaking, addressed in the ISO-NE filing is virtual regional dispatch between New York and ISO-NE.</p> <p>The NYISO plans to implement its Standard Market Design 2.0 on April 1, 2004.</p>
<p>2.D.</p> <p>2.D.1.</p>	<p>The State will move expeditiously to a fully-competitive retail electricity marketplace while maintaining appropriate customer service protections.</p> <hr/> <p>The State supports the unbundling of electricity services and implementing statewide competitive services for metering, billing, and other services for which competition has the potential to lower costs and improve service quality.</p> <hr/> <ul style="list-style-type: none"> • The PSC has an ongoing proceeding to determine many of the remaining issues associated with a competitive retail market and the proper roles of the parties. For example, identifying the entity that shall have responsibility as the provider of last resort remains unresolved. The proceeding includes Case 00-M-0504 which addresses unbundling costs for services. Hearings were scheduled, beginning with Con Edison and NYSEG in November 2002, and extending through 2004 for the other utilities. NYSEG’s unbundling mechanism was approved by the PSC on November 20, 2002. Full unbundling for NYSEG customers will occur over the next three years. • In 2002, the New York Legislature enacted the Energy Consumers Protection Act of 2002 (ECPA) amending the Home Energy Fair Practices Act. ECPA, which is being implemented by the PSC, requires that residential customers of energy services companies (ESCOs) shall receive the same consumer protections as those traditionally provided by regulated utility companies. • As part of a national effort to develop uniform procedures, on November 21, 2003, the PSC issued revised Uniform Business Practices based on its experiences with retail competition during the past several years. <p>The PSC directed that customer payments on bills containing both ESCO and distribution utility charges must now be prorated among the parties, rather than being first allocated to utility charges, as had been the case in the past. This change will ensure a fairer distribution of customer payments on bills and will improve the cash flows of the ESCOs.</p>

No.	State Energy Plan Recommendation Progress to Date
2.D.2.	<p>The State will stimulate technological and institutional solutions that promote price responsive load management and load control technologies for all customer classes as appropriate, paying particular attention to the multifamily residential sector throughout New York State.</p> <p>The State supports the use of interval meters, where appropriate, to enable customers to respond to real-time electricity prices.</p> <ul style="list-style-type: none"> • NYSERDA developed the Peak Load Reduction Program (PLRP) to promote price responsive load management. Direct load controls, real-time pricing (RTP), and time of use (TOU) rate options are strongly promoted. The PLRP pays for 70 percent of project costs to install interval meters which will help customers to respond to TOU and RTP. In 2003, the PLRP enabled facilities to reduce summer peak demand by more than 250 megawatts statewide by installing and using curtailment technologies such as direct load controls and permanently reducing their base load by implementing improvements such as lighting and HVAC measures. The load reductions are equivalent to the power used by 250,000 homes. Reductions of 130 megawatts were realized in Con Edison’s service territory alone. • Through the Comprehensive Energy Management program, NYSERDA has approved the installation of over 30,000 interval meters in 350 multifamily buildings. Using these meters, building owners, operators, and tenants will be able to take advantage of variable price signals from utilities to lower energy costs. • NYSERDA has implemented a first-of-its-kind pilot program in Westchester County that incorporates the installation of advanced interval meters in single family homes coupled with a time-of-use rate offered by an energy services company. As of November 2003, 40 homes are in the first phase of the pilot, with more than 200 slated to enter the program by the first quarter of 2004. • In 2002-03, the PSC provided continued regulatory support for the NYISO's Price Responsive Load Programs. The PSC previously ordered the utilities under its jurisdiction to file tariffs under which customers would be allowed to participate in the NYISO incentivized programs. The Emergency Demand Response Program (EDRP) and the Day Ahead Demand Response Program (DADRP) are both voluntary programs through which customers get paid for curtailing load. EDRP is initiated by the NYISO during times of emergencies for reliability purposes and customers provide curtailment voluntarily. Under DADRP, customers provide price bids a day ahead at which they are willing to curtail. <p>EDRP efforts peaked at approximately 520 megawatts on August 15, 2003. The NYISO also provides load curtailment through Special Case Resources (SCR), whereby customers receive a contractual price with the understanding that they curtail load for a specified period when called upon by the NYISO. SCR efforts peaked at approximately 369 megawatts on August 15, 2003.</p> <ul style="list-style-type: none"> • On April 30, 2003, the PSC instituted a proceeding (Case 03-E-0641) to evaluate the need for changes in existing voluntary real time pricing programs offered by five of the six major electric utilities operating in New York. On October 30, 2003, the PSC issued an order that directed the utilities to undertake more focused and enhanced customer education and outreach efforts aimed at identifying those large volume customer who might have the greatest potential for shifting and reducing loads in response to high hourly market commodity prices. The PSC chose not to impose expanded mandatory RTP programs at this time. • The PSC continues to encourage utilities to actively participate in NYISO programs. The PSC sponsored targeted outreach and education forums describing NYISO programs throughout the state in conjunction with NYSERDA and the NYISO. The PSC attends working group meetings and continues to be involved in the process of refining the NYISO programs to encourage additional participation. The PSC has also provided advisement on the evaluation process of the programs to determine their effectiveness.

No.	State Energy Plan Recommendation Progress to Date
2.E.	<p>The State, in coordinating rebuilding efforts in lower Manhattan with private developers following the terrorist attacks of September 11, 2001, must ensure that these efforts maximize the use of energy efficient and environmentally sound transportation services and building design and construction practices to reduce energy use and costs, and emissions.</p> <ul style="list-style-type: none"> • In 2002, the New York Energy \$martSM Loan Fund introduced enhanced incentives for the “Liberty Zone,” expanding the list of eligible improvements, increasing the interest buy-down to 6.5 percent, and increasing the project cap to \$1.5 million. NYSERDA’s ENERGY STAR® Labeled Homes Program expanded to include New York City. • Governor Pataki proposed and the State Legislature approved legislation to provide 80 megawatts of power for displaced World Trade Center tenants and other lower Manhattan businesses affected by the September 11 terrorist attacks. The economical electricity, which had been previously supplied by NYPA to the Port Authority of New York and New Jersey for the World Trade Center, has helped return more than 43,000 jobs to lower Manhattan. • Agencies constructing transportation facilities in lower Manhattan have collaborated on an <i>Environmental Analysis Framework and Performance Commitments</i>. A key element of this framework is the “Construction Environmental Protection Plan” that requires project sponsors to commit to protect environmental resources during construction. This includes use of clean fuels and use of diesel oxidation catalyst technologies for construction equipment. • To ensure that air quality is maintained during the reconstruction of lower Manhattan the State has initiated a plan that will control emissions from non-road construction equipment by requiring the use of ultra-low sulfur diesel fuel and best-available retrofit technologies to reduce the emissions of fine particulate matter and NOx, establish a process to identify the best available control technology for a wide range of construction equipment, conduct joint project reviews with U.S. EPA, U.S. DOT, DEC, and DOT, and establish a workgroup to identify and implement transportation control measures like new bikepaths, pedestrian improvements, traffic signal improvements, and commuter choice programs that promote mass transit and could have air quality benefits. • On February 4, 2004, U.S. EPA approved New York State Implementation Plan revisions involving the one-hour Ozone Plan which is intended to meet several Clean Air Act requirements for the New York portion of the New York-Northern New Jersey-Long Island nonattainment area. These requirements include the Reasonable Further Progress Plans; projection year inventories and transportation conformity budgets for milestone years 2002, 2005, and 2007; ozone contingency measures; Reasonably Available Control Measure Analysis; one-hour Ozone Attainment Demonstration; and enforceable commitments. The intended effect of this action is to approve programs required by the Clean Air Act which will result in emission reductions that will help achieve attainment of the one-hour national ambient air quality standard for ozone in the (New York, Northern New Jersey, and Long Island) non-attainment area. •As part of the first rebuilding effort in lower Manhattan, the design of World Trade Center 7 will conform to the U.S. Green Buildings Council LEED™ rating for the core and shell. High performance green design guidelines are being developed for the site, and the project is expected to apply for the Green Buildings Tax Credit.

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2.F.	<p>The State will continue to strive to reduce energy costs for all New Yorkers with the expectation of narrowing the disparities between New York's costs and costs in other states and regions of the country.</p> <hr/> <ul style="list-style-type: none"> • The Power for Jobs program provides low cost power to more than 600 employers and is linked to the creation and preservation of more than 300,000 jobs. In August 2002, Phase Five of the Power for Jobs program authorized making 183 megawatts of electricity available at reduced cost to new and continuing Power-for-Jobs employers. As of July 2003, Phase Five of the Power for Jobs program was completed. • As of May 2002, energy costs for New Yorkers were declining relative to the United States as a whole and other regions of the country. While New York's retail energy prices remain generally higher than national average prices for comparable fuels, significant improvements in the differential between New York and U.S. prices have been observed since 1996 for electricity and natural gas. During the period 1996 through 2002, New York's all-sector electricity price in nominal dollars declined 2.7 percent, going from 11.2 cents to 10.9 cents per kilowatt hour, while the national average rose 4.9 percent. • In November 2002 NYSEG's rates for gas distribution delivery service were frozen through December 2008. At that time, NYSEG was allowed to terminate its cap on the total customer price, including commodity costs, and replace it with a mechanism to flow through the actual market price of gas. The resulting increase in customer bills will put NYSEG on a par with other utilities. • Effective May 1, 2002, Con Edison's gas distribution rates were reduced by \$25 million for three years through September 2004. • In late 2001, gas rates for Niagara Mohawk and Central Hudson were frozen for three years through December 2004. Rates for National Fuel Gas (NFG) were reduced by \$19.1 million in the first year and by \$6.5 million in each of the second and third years. • In September 2003, the PSC approved a joint proposal that extended NFG's prior rate plan, freezing rates until October 2004 and providing for a \$5 million annual customer credit
<p>Policy Objective 3. Increasing energy diversity in all sectors of the State's economy through greater use of energy efficiency technologies and alternative energy resources, including renewable-based energy.</p>	
3.A.	<p>The State supports significantly increasing energy resource diversity in electricity generation and transportation through increased reliance on indigenous, renewable, energy efficiency, and demand management resources.</p> <hr/> <ul style="list-style-type: none"> • Energy resource diversity in the transportation sector continues to increase. For example, the New York Thruway Authority is piloting the use of ethanol in western New York; the New York State Department of Corrections has purchased bi-fuel propane vehicles; NYS DOT is piloting compressed natural gas (CNG) conversions in its heavy duty trucks; and a private contractor is expected to take over maintenance and operation of a number of CNG refueling sites and open them to the public. • Through its alternative-fuel vehicle deployment programs, NYSERDA is supporting introduction of approximately two million gallons of biodiesel fuel and has awarded funds for fleets to procure more than 400 natural gas and hybrid-electric vehicles. Ethanol fueling capacity is being developed to help the State fleet meet its fuel diversity goals. In May 2003, New York City was designated a Clean City by U.S. DOE; seven urban communities across the State now participate in this voluntary initiative. • See 3.A.3., 3.A.4., and 1.D.

No.	State Energy Plan Recommendation Progress to Date
3.A.1.	<p>The State adopts the goal of reducing statewide primary energy use in 2010 to a level that is 25 percent below 1990 energy use per unit of Gross State Product (GSP).</p> <p>The State adopts the goal of increasing the share of renewable energy as a percentage of primary energy use 50 percent by 2020, up from 10 percent in 2000 to 15 percent in 2020.</p> <hr/> <ul style="list-style-type: none"> • As a result of actions during the 2002 legislative session, localities and school districts are allowed to accept payment in lieu of taxes on wind and solar energy systems. Also in 2002, the State announced \$17 million in funding for five wind farms having a combined potential development capacity of more than 500 megawatts, and legislation was passed to assist wind generation facilities in Lewis County. • A major portion of NYSERDA's New York Energy SmartK research and development programs are focused on reducing statewide primary energy use through energy efficiency. Through the end of 2003, New York Energy SmartK and research and development programs reduced statewide energy use by approximately 1,200 megawatts. • The New York State Department of Transportation convened an internal State Energy Plan Implementation Group chaired by the Environmental Analysis Bureau's Air Quality Section. In 2003, recommendations were adopted and guidance was provided to regional offices and metropolitan planning organizations to move forward with these efforts. Work with respect to these activities is ongoing. • In February 2003, the PSC instituted a proceeding to develop and implement a renewable portfolio standard for New York State. • See also 3.A.1.a., 3.A.2.
3.A.1.a.	<p>The State should competitively solicit 60 to 120 megawatts of renewable electricity generation to meet the requirement of the Governor's Executive Order No. 111, which requires up to 10 percent of State facilities' electricity be provided from renewable resources by 2005 and 20 percent by 2010.</p> <hr/> <ul style="list-style-type: none"> • The first Annual Energy Report for Executive Order No. 111 was published by NYSERDA in July 2003. Affected State entities, which account for 400 million square feet of floor space, are required to competitively solicit renewable energy to supply 10 percent of their energy use by 2005 and 20 percent by 2010. There are currently several options open to them. Implementation strategies may include on-site generation, purchase through utility green power marketing programs, and direct procurement from generators. Progress was slow in 2002, accounting for purchases of only 375,000 kilowatt hours. In 2003, a number of State agencies made independent purchases of wind power which will be used to meet part of their Executive Order No. 111 requirements. • In 2003, the State Senate approved legislation (S.3901A) to enable NYPA to serve as a procurement agent for renewable power and to provide related services to State entities in order to address the renewable power goals and objectives of Executive Order No. 111. The legislation was not approved by the Assembly in 2003 but may be considered in 2004.

No.	State Energy Plan Recommendation Progress to Date
3.A.1.b.	<p>The New York Power Authority should competitively solicit bids for long-term contracts for the purchase of 100 megawatts of electricity capacity from renewable energy resources.</p> <p>New York Power Authority should increase its annual investment in energy efficiency by 25 percent and continue to cooperate with NYSERDA and LIPA in program offerings and delivery.</p> <hr/> <ul style="list-style-type: none"> • In June 2003, NYPA Trustees authorized negotiations for power purchase agreements for a total of 50 megawatts with two wind projects that are currently in development – Chautauqua Windpower/Jasper Energy and Windfarm Prattsburgh. An agreement, contingent upon approval of all necessary permits for the proposed project, was signed with Chautauqua Windpower/Jasper Energy in December 2003 on a ten-year contract for purchase of up to 26.5 megawatts. • During 2003, NYPA’s Energy Services Program completed 122 projects that will cut the electricity costs of schools and other public buildings by more than \$5 million each year and reduce their electricity consumption by more than 46,600 megawatt-hours annually. • Among its array of new clean power projects, NYPA has installed solar power photovoltaic applications (690 kilowatts existing and in progress); fuel cells, including several powered by anaerobic digester gas at sewage treatment plants (4,000 kilowatts existing and in progress); microturbines using waste gas as the fuel source (300 kilowatts existing and in progress); and landfill gas power projects which capture methane emissions for use as fuel (12,000 kilowatts in progress). • Governor Pataki proposed and the State Senate passed legislation (S.4830) to enhance the availability of energy efficiency upgrades for public facilities by streamlining the procurement process for programs offered by NYPA and NYSERDA. The legislation was not approved by the Assembly in 2003 but may be considered in 2004. • See 3.A.1.c.
3.A.1.c.	<p>The Long Island Power Authority (LIPA) should competitively solicit bids for long-term contracts for the purchase of 100 megawatts of electricity capacity from renewable energy resources.</p> <p>LIPA should increase its annual investment in energy efficiency by 25 percent and continue to cooperate with NYSERDA and the New York Power Authority in program offerings and delivery.</p> <hr/> <ul style="list-style-type: none"> • In January 2004, LIPA solicited 100 to 140 megawatts of electricity from off-shore wind turbines for Long Island’s power grid. LIPA expects to make recommendations to its Board of Directors in the first six months of 2004. • LIPA solicited 75 megawatts of energy efficiency resources through an Request for Proposals issued on October 7, 2003. The solicitation was limited to energy efficiency and non-residential and multifamily loads. The deadline for submission of proposals was December 4, 2003. • Beginning in 2004, LIPA has agreed to adopt NYSERDA’s ENERGY STAR® Labeled Homes Program for new construction and NYSERDA’s Home Performance with ENERGY STAR® Program for existing homes. These two programs will provide a seamless offering to benefit the residential sector. • From the summer of 2000 through the summer of 2003, LIPA, NYPA, and NYSERDA successfully collaborated on the Keep Cool residential peak load reduction program that resulted in more than 250,000 old inefficient room air conditioners being traded in and more than 500,000 new ENERGY STAR® room air conditioners being purchased. This effort resulted in 83 megawatts of permanent peak load reduction and more than 100 megawatts of behavior change reduction stemming from a coordinated public appeal to shift energy intensive tasks from peak periods.

No.	State Energy Plan Recommendation Progress to Date
3.A.2.	<p data-bbox="298 302 1511 415"> NYSEDA will examine and report on the feasibility of establishing a statewide renewable portfolio standard (RPS) for electricity generation, assess the economic impacts of an RPS, and determine whether and how an RPS might be harmonized with a restructured and competitive electricity market and the goals from planned State actions to promote renewable energy development. </p> <hr/> <ul data-bbox="298 466 1511 940" style="list-style-type: none"> <li data-bbox="298 466 870 659"> Pursuant to the State Energy Plan, NYSEDA prepared a paper entitled <i>Preliminary Investigation Into Establishing a Renewable Portfolio Standard in New York</i> assessing issues associated with introduction of a renewable portfolio standard (RPS) in New York State. The paper became a foundation document for the PSC's RPS proceeding. <li data-bbox="298 688 870 940"> Following the Governor's 2003 State of the State address calling for introduction of an RPS in New York State, on February 19, 2003, the PSC issued an Order instituting a proceeding (Case 03-E-0188) to develop and implement an RPS for electric energy retailed in New York State. The Order established as a working target that 25 percent of the energy retailed in New York State would be generated from renewable resources within 10 years. The proceeding commenced <p data-bbox="927 466 1511 659"> with a collaborative effort to develop and design options for an RPS. A number of working groups were formed; working objectives were developed; and several technical conferences were held. After Initial Comments were filed on March 28, 2003, an additional round of Initial Comments were filed by parties on September 26, 2003. Reply Comments were filed by parties on October 31, 2003. </p> <p data-bbox="927 688 1511 856"> The proceeding is continuing to examine the methodology and assumptions to be used in assessing the impacts on the reliability of the bulk power transmission system of integrating significant amounts of wind generation. The methodology and assumptions underlying the cost information placed on the record are also being assessed. See 3.A.1.a.. </p>
3.A.3.	<p data-bbox="298 963 1511 1077"> The State encourages greater use of indigenous fuels and renewable-based electricity generation by pursuing appropriate regulatory reform initiatives, wider application of net-metering programs where appropriate, continuing review of interconnection requirements, consolidating and enhancing tax incentives, and supporting development of a renewable fuels industry in New York. </p> <hr/> <ul data-bbox="298 1127 1511 1850" style="list-style-type: none"> <li data-bbox="298 1127 870 1350"> Legislation was signed in September 2002 (1) to expand the net metering statute (Public Service Law j-66) to include farm waste generation systems of not more than 400 kilowatts, (2) to authorize LIPA to provide for interconnection of farm waste electric generating equipment, and (3) to provide real property tax exemptions resulting from any increase in value resulting from such systems for 15 years. <li data-bbox="298 1379 870 1602"> In 2002, the PSC approved a rate and restructuring joint proposal for NFG that includes a provision that allows for greater use of indigenous natural gas. Previously, NFG would only allow five percent of indigenous gas transported by marketers to be considered "firm" for reliability purposes. Based on a study of its system, the Joint Proposal increases the amount to 50 percent of indigenous natural gas that will be considered firm. <li data-bbox="298 1631 870 1766"> In 2002, the PSC approved the construction of a pipeline in Schuyler and Chemung Counties to permit the delivery of indigenous gas from the Trenton/Black River formation into NYSEG's transmission and storage facilities. <li data-bbox="899 1127 1511 1350"> The PSC's Standardized Interconnection Requirements (SIR) were revised in 2002, streamlining the application process to reduce the time to complete interconnection. A clause added to the SIR prohibits the imposition of fees for study reviews on applicants with projects rated at 15 KVA or less. The next iteration of the SIR for larger systems that can be networked has been published in the <i>State Register</i> and will be finalized in 2004. <li data-bbox="899 1379 1511 1547"> New York State's Environmental Disclosure Program has been under way since January 2002. All electric providers must inform their customers of the fuel source and emissions associated with the generating sources from which the provider obtains electricity. Providers must distribute the labels to customers at least once in each six month period. <li data-bbox="899 1577 1511 1850"> In April 2003, the PSC ordered utilities to file amended tariffs detailing procedures for implementing the farm waste net metering law and to allow qualifying farm waste systems up to 400 kilowatts to use the SIR. The SIR would otherwise be limited to on-site generators of 300 kVa or less. In August 2003, the PSC completed review of the proposed tariffs and ordered some changes. In October 2003, upon satisfactory completion of the recommended changes, the PSC issued an order accepting the amended tariffs for use in implementing farm waste net metering.

No.	State Energy Plan Recommendation Progress to Date
3.A.4.	<ul style="list-style-type: none"> • The State supports expanding biofuels research and development activities with the goal of creating a self-sustaining private sector biofuels industry in the State within the next 5 to 10 years. • The State will develop a specific plan for producing, refining, and marketing biomass fuels derived from waste, soybean, and corn oils, and from paper sludge, municipal solid waste, and other cellulose sources, working in cooperation with other states. • The State supports the commercialization of biofuels technology and use of biofuels as vehicle fuel, heating fuel, emergency electricity generation fuel, and in marine applications. <hr/> <ul style="list-style-type: none"> • In 2003, NYSERDA entered into agreements with three manufacturers to assist with the identification of available feedstocks and to address siting issues. The first project will help commercialize biodiesel manufacturing at a facility in Western New York, the second will explore sites statewide, and the third includes development and demonstration of a modular production process to be located either in the Capitol District or in the North County region of New York. • NYSERDA, in partnership with NOCO Energy Corp., announced plans to develop an ethanol fueling network in western New York. Other partners include U.S. DOE, the U.S. Postal Service, and United Parcel Service. In 2003, NYSERDA, NOCO Energy Corp., and other petroleum companies continued plans to develop ethanol fueling facilities at retail sites in western New York and at New York State Thruway Authority and New York State Office of Mental Health locations in Syracuse, Albany, and New York City. The first location could see service as soon as spring 2004. • NYSERDA provided over \$200,000 for a pilot program to demonstrate use of biodiesel fuel (B20) for transit buses, school buses, and municipal heavy-duty vehicles in Western New York. In 2003, demonstration projects are being initiated at the Albany County Airport, Brookhaven National Lab, and at a Capital District commercial trucking company. The New York State Department of Transportation is piloting B20, a biodiesel blend using 20 percent biodiesel, in a number of its heavy duty vehicles. • NYSERDA and the New York State Department of Agriculture and Markets initiated a joint study to evaluate policy options to support a biodiesel industry in New York. The final report is scheduled for release in March 2004. • Over the past two years, NYSERDA supported a demonstration of low-sulfur home heating oil in 1,000 homes in New York. The study demonstrated the potential to significantly reduce sulfur dioxide emissions from residential sources while providing cost savings from reduced maintenance.
3.A.5.	<p>The State supports research, demonstration, and commercialization of advanced electricity generating technologies and encourages the retrofit or repowering of existing generating facilities in the State to maintain the State’s energy diversity.</p> <hr/> <ul style="list-style-type: none"> • The term "repowering" has various meanings. It can refer to building a new facility adjacent to or near an existing facility and tearing down the old facility (<i>e.g.</i>, Bethlehem Energy Center), or it can refer to removing the existing facilities from inside an existing generation building and installing all new facilities (<i>e.g.</i>, East River), or it can refer to reusing the components of an existing facility in the development of a new facility at the same site (<i>e.g.</i>, Reliant's Astoria facility). In New York State, the Bethlehem Energy Center project represents an approximate increase of 350 megawatts in capacity through use of combined cycle natural gas units at an existing conventional natural gas plant site; the East River project represents an approximate 200 megawatts increase in capacity through use of new natural gas turbines and heat recovery steam generators to replace an existing fuel oil plant; and the Reliant Energy Astoria project represents a 562 megawatt increase in capacity through use of combined cycle natural gas units at an existing conventional fuel oil plant. • NYSERDA has supported the demonstration of wood chip cofiring in coal power plants, most recently at the Dunkirk Station in western New York. Work has been done with a power producer in New York City to explore the possibility of converting gas turbine peaking plants, now firing distillate oil, to methanol. In addition, explorations continue regarding the use of liquified natural gas for small power plants in areas that have transmission constraints, such as the Lake Placid area. • NYPA is evaluating the potential of Integrated Gasification Combined Cycle (IGCC) technology, which may offer the possibility of using indigenous coal resources to generate electricity in compliance with strict environmental standards.

No.	State Energy Plan Recommendation Progress to Date
3.B.	The State supports the development and use of distributed generation (DG) and combined heat and power (CHP) technologies at customer sites, with the goal of becoming a national leader in the deployment of clean distributed generation technology. Primary focus should be on applications where such technologies can be shown to reduce energy costs, improve electricity system reliability, and reduce harmful pollutant emissions.
3.B.1.	The State should continue its research and development support for DG and CHP technologies and applications, supporting, in particular, clean and renewable energy-based DG and CHP technologies.
3.B.2.	The State should take all reasonable steps necessary to facilitate the interconnection of DG and CHP resources into the electricity system and increase the use of DG and CHP resources in the State.
3.B.3.	The State should offer investment tax credits to spur private sector investment in environmentally-sound and cost-effective DG and CHP technologies.
	<ul style="list-style-type: none"> • The New York State Department of Environmental Conservation is continuing to work with stakeholders to develop regulations governing emissions from distributed generation sources. See also 4.A.1 • In July 2003, the PSC required Con Edison, Orange and Rockland Utilities, Inc., NYSEG, and RG&E to develop revised standby rates. The standby rates for those utilities, scheduled to take effect on or about February 1, 2004, will apply to both distributed generation customers and wholesale generators to the extent they rely on the local electric utility to deliver power to replace or supplement their own generation. The PSC previously approved standby rates for Niagara Mohawk and an Order establishing electric standby rates for Central Hudson Electric and Gas was issued and effective on December 4, 2003. In addition, a Standby Rates Technical Conference was held in October 2003 for interested parties to share information and data related to the installation and operation of distributed generation facilities in New York in conjunction with the new electric standby rates. This technical conference served as the first step in what is hoped to be a series of ongoing discussions among interested parties designed to facilitate the appropriate development of cost-effective distributed generation resources in the State. • NYSERDA received \$300,000 from U.S. DOE and is contributing \$150,000 of system benefits charge funds to establish a Northeast Regional CHP Applications Center. The Center is one of six that will be established nationwide and includes New York and seven New England states. NYSERDA will act as financial administrator of the funds; PACE Energy Center will provide education and outreach services, and the University of Massachusetts Amherst will deliver technical assistance. • In 2003, NYSERDA committed over \$40 million for 81 combined heat and power systems that will install 85 megawatts of new electricity generation capacity. In addition, nearly \$8 million was committed for 25 projects to develop new distributed generation technologies, which include pilot testing of laboratory-scale prototypes and other innovative products and equipment. In all, the portfolio of projects attracted over \$160 million in leveraged investment in distributed generation and combined heat and power technologies and applications. • NYSERDA awarded the Town of Perry more than \$833,000 for anaerobic digestion systems for three of its largest dairy farms. The systems will generate more than 630 kilowatts of electricity and heat for heating water, space heating, and drying compost. • In 2002, the Public Service Commission and distribution utilities began a three-year pilot program to develop policies and procedures for integrating distributed generation into the utilities' distribution system planning process. Utilities were required to solicit proposals and enter into contracts with owners of distributed generation projects. During the summer of 2002, three utilities issued requests for proposals for six projects. • In the second round of the distributed generation pilot program, O&R submitted two requests for proposals in June and received one bid in September, which was subsequently rejected because its cost exceeded the traditional transmission and distribution upgrade it was intended to replace. Con Edison issued four requests for proposals on July 14 and received no bids by the October deadline. The remaining four utilities are expected to issue their second round of requests for proposals by the first quarter of 2004. • A notice in the <i>State Register</i> proposes revising the PSC's SIR to reflect the national SIR developed by the Institute of Electrical and Electronics Engineers (IEEE), thus bringing New York's requirements into line with national standards. • See I.D. and 3.A.3.

No.	State Energy Plan Recommendation Progress to Date
3.C.	<p>The State supports fuel neutrality in its support for alternative-fueled vehicle technology. The New York Alternate Fuels Tax Credit program, scheduled to expire on February 28, 2003, should be extended and consideration given to enhancing it by including all types of alternative- fueled vehicles. Incentives should also be considered to support the development of an alternative fuels infrastructure in New York.</p> <hr/> <ul style="list-style-type: none"> The New York Alternate Fuels Tax Credit Program was extended through the end of 2003. Legislation to extend the program was introduced in 2003 without success. Federal legislation has been proposed that would provide tax incentives for vehicle purchases and alternative fuel use.
3.D.	<p>The State supports federal surface transportation legislation that leads to more energy-efficient transportation. Specific elements should include increased federal funding for transit, retention of the Congestion Mitigation and Air Quality program, continued funding for intelligent transportation systems and transportation systems operations, and modification of the Federal Transportation Equity Act for the 21st Century (TEA-21) programs to improve rail service.</p> <hr/> <ul style="list-style-type: none"> The Federal Transportation Equity Act for the 21st Century was extended through the end of February 2004 in its current form. New York continues to work with its Congressional delegation and other groups to seek federal legislation that meets New York’s transportation needs and is consistent with the State Energy Plan.
3.E.	<p>The State encourages the Federal government to adopt new corporate average fuel economy (CAFE) standards for vehicles to address vehicle energy efficiency in a way that protects driver and passenger safety.</p> <hr/> <ul style="list-style-type: none"> Through the end of 2003, the required federal legislation had not been enacted.

No.	State Energy Plan Recommendation Progress to Date
Policy Objective 4. Promoting and achieving a cleaner and healthier environment.	
4.A.	<p>The State should continue to develop and implement strategies to reduce environmental impacts from stationary sources of pollution.</p> <hr/> <ul style="list-style-type: none"> • The Acid Deposition Reduction regulations for sulfur dioxide (SO₂) and nitrogen oxides (NO_x) became effective on May 17, 2003. See 4.A.2. for more details. • On July 24, 2003, formation of the Regional Greenhouse Gas Initiative (RGGI) was announced. The RGGI will result in reductions in carbon dioxide emissions from power plants. • DEC and DPS are co-chairing a regional working group as part of RGGI that is attempting to develop a model CO₂ cap-and-trade program for power plants by April 2005. NYSERDA, also, is an active participant and heads up a sub-group on modeling. • On February 25, 2003, DEC issued a final State Pollutant Discharge Elimination System (SPDES) permit for the Lovett Generating Station that will significantly reduce the aquatic impacts from the station's once-through cooling technologies. DEC also issued draft SPDES permits for the Danskammer Electric Generating Facility, on June 25, 2003, and the Indian Point Nuclear Generating Station, on November 12, 2003. These permits, as drafted, will significantly reduce aquatic impacts from the once-through cooling systems used at these facilities. <ul style="list-style-type: none"> • On May 14, 2003, DEC released a draft policy providing guidance for assessing and mitigating impacts from fine particulate matter emissions (PM_{2.5}) from proposed projects. The final policy and responsiveness summary were published in the <i>Environmental Notice Bulletin</i> on January 14, 2004. • See 4.D. for a thorough discussion of the Regional Greenhouse Gas Initiative.
4.A.1.	<p>Work with industry to promulgate emission standards for distributed generation.</p> <hr/> <ul style="list-style-type: none"> • DEC has begun steps that will culminate in a rule addressing emission standards for distributed generation and combined heat and power projects. Among the parties involved with the rulemaking are NYSERDA, the PSC, Pace Energy Project, energy manufacturing associations, emissions equipment and microturbine manufacturers, independent power producer organizations, and numerous other interested parties and industry stakeholders. <p>In April 2003, stakeholders were provided with a draft of the standards for distributed generation and combined heat and power to be included in the regulations. Comments are being reviewed, and a draft of the regulations will be provided to the stakeholder group in early 2004. The regulation is expected to be completed in late 2004.</p>
4.A.2.	<p>Implement the Governor's Acid Deposition Reduction Program (ADRP), which is expected to significantly reduce GHG emissions and the acid rain precursors SO₂ and NO_x.</p> <hr/> <ul style="list-style-type: none"> • The Acid Deposition Reduction NO_x Budget Trading Program regulations (6 NYCRR Part 237) and the Acid Deposition Reduction SO₂ regulations (6 NYCRR Part 238) became effective on May 17, 2003. <p>The purpose of these regulations is to reduce emissions of NO_x and SO₂ from fossil fuel fired electric generating sources statewide through market-based cap-and-trade programs.</p> <p>The regulations require electric generators in New York State to reduce SO₂ emissions an additional 50 percent below levels allowed by the federal Clean Air Act's Acid Rain Program requirements and will be phased in over a three-year period beginning in 2005.</p> <p>The regulations call for year-round reductions in NO_x emissions beginning October 1, 2004. This initiative is expected to reduce greenhouse gases by ten percent.</p>

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4.A.3.	<p>Provide expedited permitting procedures to encourage siting of electric generation facilities that minimize aquatic and air quality impacts.</p> <hr/> <ul style="list-style-type: none"> In 2002, the New York Legislature passed a Governor’s bill to amend Article X of the Public Service Law to allow faster certification for certain repowering proposals. While Article X expired on December 31, 2002, Bethlehem Energy has taken advantage of the expedited regulation and is currently under construction.
4.A.4.	<p>Work with federal government to develop national strategies to reduce multi-pollutant emissions from electric generating facilities.</p> <hr/> <ul style="list-style-type: none"> In November 2003, New York joined a lawsuit filed by a number of other states challenging U.S. EPA’s August 28, 2003 decision that it does not have authority to regulate greenhouse gases under the Clean Air Act. New York State is actively reviewing various Congressional proposals and regulatory proposals to reduce emissions of multi-pollutants (<i>i.e.</i>, NOx, SO₂, CO₂, and Mercury). On February 2, 2004, the Ozone Transport Commission (OTC), a multi-state organization created by Congress of which New York State is a member, announced its formal position on reducing emissions from the electric generating sector. The OTC’s position calls for NOx and SO₂ emissions from these sources to be capped at 1.87 million and 3.0 million tons, respectively, by 2008 and by 1.2 million and 2.0 million tons by 2012. In addition, the OTC asserts that initial mercury control levels should not exceed 15 tons with an ultimate performance requirement that would achieve approximately five tons per year by 2015, a 90 percent reduction from current emissions.
4.A.5.	<p>Use System Benefit Charge funding to promote the development of clean energy generation technologies.</p> <hr/> <ul style="list-style-type: none"> In 2003, NYSERDA made \$1 million available for demonstration of advanced air pollution control and monitoring technologies. Opportunities for demonstrations by generation facilities were included in the solicitation but no generators submitted proposals. Subsequent discussions with generation facilities revealed heightened interest in such demonstration projects, and NYSERDA anticipates re-issuing the solicitation in 2004. See 3.A.5.

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4.B.	The State should continue to develop and implement innovative strategies to reduce environmental impacts from mobile sources of pollution.
4.B.1.	Work with automobile and truck manufacturers to develop new technologies to reduce emissions from such vehicles, and to promote the introduction of such technologies into the marketplace.
4.B.2.	Promote the introduction of clean fuels, including renewables, low-sulfur diesel, and other alternative fuels by purchasing vehicles that use such fuels for use in the State fleet and developing incentives to encourage their use in the private sector.
	<ul style="list-style-type: none"> • Regulations (6 NYCRR 210) placing emissions controls on personal water craft beginning with model year 2006 became effective on August 8, 2002. • New York State Department of Environmental Conservation supports the U.S. EPA regulations adopted in August 2002 setting more stringent emissions standards for on-highway diesel-fueled vehicles and the draft regulations issued for non-road vehicles. • A number of strategies are being implemented to reduce mobile source emissions, especially in the downstate area. See 4.D.10. for further information. • New York State Department of Transportation is piloting a program on Long Island to install retrofit technology and use clean fuels on a number of its heavy-duty on-road fleet. The Department of Transportation, in partnership with the New York State Thruway Authority, received a federal grant to install oxidation catalysts and use ultra-low-sulfur diesel fuel in trucks operating in the lower Hudson Valley. <p>The Clean Fueled Vehicles Council (Council) consists of 17 State agencies, authorities, and offices working to steadily increase the State's use of clean fueled vehicles and fueling infrastructure. In 2003, the State fleet totaled 3,280 vehicles, primarily using CNG (52%) and ethanol (15%).</p> <ul style="list-style-type: none"> • \$5 million from the Clean Water/Clean Air Bond Act were awarded by NYSERDA to 74 school districts to install emission-reducing diesel retrofit equipment on 2,200 school buses. An award was included to the New York City Board of Education to install diesel oxidation catalysts on 209 privately owned buses that will be using ultra-low-sulfur diesel fuel. <p>More than 70 CNG stations are open to the public, several more are limited to State vehicles, and the New York State Office of General Services recently entered into a contract with a private firm to develop a network of high-volume CNG stations in key areas across the State.</p> <p>The New York State Thruway Authority recently opened an ethanol station to serve its vehicles in western New York. The New York State Department of Transportation will kick off a pilot project to test winter operations and fleet maintenance issues connected with the use of B20 in its heavy-duty vehicles. B20 is a fuel blend containing 20 percent biodiesel and 80 percent low-sulfur diesel fuel. The New York State Department of Correctional Services operates numerous propane vehicles and currently operates propane stations at six of its correctional facilities.</p> <ul style="list-style-type: none"> • In December 2003, DEC filed emergency regulations to modify the Zero Emissions Vehicle (ZEV) program to maintain standards identical with California's, as required by the Clean Air Act. Modifications are designed to improve the flexibility of manufacturers to introduce advanced technology vehicles to the motor vehicle fleet. • See 3.A.1.

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4.C.	<p>The State should proceed to phase out the use of methyl tertiary butyl ether (MTBE) as an oxygenate additive in motor gasoline as required by State law. At the same time, the State will seek Federal relief from the oxygenate requirement. The State will begin supporting infrastructure development for an indigenous and renewable-based substitute for MTBE in the event that relief is not provided. The State should recommend strategies for building and supporting such an infrastructure and industry in New York.</p> <hr/> <ul style="list-style-type: none"> • In January 2003, DEC filed a request for a waiver of the oxygenate mandate. Subsequently, the federal government requested additional information. The additional information was submitted to U.S. EPA in December 2003. • The New York State Department of Environmental Conservation, the New York State Consumer Protection Board, and the Attorney General of the State of New York, with assistance from NYSERDA and the New York State Department of Agriculture and Markets, will monitor the effects of the MTBE phase out on the sale of gasoline to New York consumers. <p>Methyl tertiary butyl ether (MTBE) will no longer be permitted in New York State effective January 1, 2004. The Department of Agriculture and Markets, which is responsible for sampling and testing motor fuels for conformance with the ban, has recognized that trace amounts of MTBE may be found in motor fuels for reasons outside the control of the regulated parties and has stated that the presence of <i>de minimus</i> amounts of 0.5 percent or less by volume will not be subject to regulatory action.</p>
4.D.	<ul style="list-style-type: none"> • The State should lead the nation in taking actions to reduce greenhouse gas emissions, stressing the aggressive implementation of existing and development of new technologies and strategies that would significantly reduce emissions. • The State should build upon its successes to date in promoting energy efficiency and renewable energy technologies and transportation strategies, that have helped New York become the most energy-efficient state in the continental U.S., and a significant developer of renewable energy, which already accounts for 15 percent to 18 percent of the State’s electricity generation and 10 percent of primary energy use. • The State will continue to evaluate the economics and environmental benefits of the recommendations of the Governor’s Greenhouse Gas Task Force. <hr/> <ul style="list-style-type: none"> • On July 24, 2003, the Regional Greenhouse Gas Initiative (RGGI) was announced. RGGI is a multistate effort to design a cap-and-trade program for the region consisting of New York, Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, Rhode Island, and Vermont. Maryland, Pennsylvania, and several Canadian provinces are observing the effort. A draft plan that will include a multistate cap-and-trade program and model rule will be developed and circulated among the states having April 2005 as a goal for final agreement. The Regional Greenhouse Gas Initiative will result in reductions in carbon dioxide emissions from power plants. • The United States Department of Transportation Center for Climate Change and the New York State Department of Transportation have initiated a project entitled <i>Assessment of the New York State Energy Plan</i>. The goals of the project are to (1) develop a “best practices” guide for states interested in exploring the benefits of integrating energy, transportation, and air quality planning to reduce greenhouse gases in the transportation sector, (2) help states integrate transportation, energy, and air quality planning strategies, and (3) support the federal government’s climate change strategy. • The California Air Resources Board is in the process of developing a program to reduce greenhouse gas emissions from motor vehicle fleets. In his 2003 State of the State address, the Governor stated that New York State is committed to adopting California’s greenhouse gas standards for New York’s vehicle fleets.

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4.D. (Con'd)	<ul style="list-style-type: none"> • In 2003, the NYPA “Clean Commute Program,” conducted in cooperation with Metropolitan Transit Authority, NYSERDA, New York State Department of Transportation, LIPA, U.S. DOE, and various municipalities, deployed 78 all-electric Ford “Th!nk” vehicles and charging stations at seven commuter rail stations in the metropolitan New York region. NYPA also deployed 300 all-electric GEM™ (Global Electric Motorcars, LLC) low-speed vehicles, donated by DaimlerChrysler, to state and local government agencies, state universities and colleges, and nonprofit charities. In addition, NYPA initiated a program with the municipal and rural electric cooperative systems of New York State to help finance the purchase of electric-drive vehicles for their fleets. • NYSERDA has numerous projects under way to reduce energy consumption in the transportation sector. <p style="margin-left: 150px;">»45 electrified berths for diesel tractor trailers were installed at two New York State Thruway Travel Plazas in the Syracuse area.</p> <p style="margin-left: 150px;">»Wilton Travel Plaza on the Northway is a demonstration site for twenty shorepower pedestals that will provide electric power to diesel tractor trailers.»Projects in early stages include manufacture and deployment of electric trucks, bus depot reheating, and additional truck-stop electrification projects.</p> <ul style="list-style-type: none"> • A report entitled <i>Recommendations to Governor Pataki for Reducing New York State Greenhouse Gas Emissions</i> was released in April 2003 by the Center for Clean Air Policy, working in conjunction with members of the Governor’s Task Force. • See 3.A.1.
4.D.1.	<p>Commit to a statewide goal of reducing greenhouse gas (GHG) emissions 5 percent below 1990 levels by 2010, and 10 percent below 1990 levels by 2020.</p> <hr/> <ul style="list-style-type: none"> • The regional initiative described in 4.D. will result in reductions in carbon emissions from power plants. • See 4.D.8. for a description of activities in the transportation sector.
4.D.2.	<p>Develop a GHG emission registry program for registering baseline GHG emissions and emission reductions from actions implemented at facilities.</p> <hr/> <ul style="list-style-type: none"> • On October 6, 2003, the Northeast States for Coordinated Air Use Management launched a regional effort to create a greenhouse gas registry. New York is actively engaged in this effort.
4.D.3.	<p>Emphasize the greenhouse gas emission reduction potential, most notably of carbon dioxide (CO₂), as a criterion in developing new program initiatives in the State’s public benefits programs.</p> <hr/> <ul style="list-style-type: none"> • The alternative fuel vehicle (AFV) tax credits, which included tax credits for hybrid-electric vehicles, expired in 2003. In 2002, greenhouse gas reduction potential has been added as a selection criterion for NYSERDA’s AFV deployment programs. • CO₂ emissions reductions from measures installed with assistance from NYSERDA’s New York Energy \$martK program were 820,000 tons per year through the third quarter of 2003; anticipated reductions resulting from projects for which funds have been committed are 2,140,000 tons per year. • A 2003 study funded by NYSERDA and conducted by Optimal Energy, Inc., American Council for an Energy-Efficient Economy, Vermont Energy Investment Corporation, and Christine T. Donovan Associates, <i>Energy Efficiency and Renewable Energy Resource Development Potential in New York State</i>, indicates that renewable technologies can make important contributions to greenhouse gas emissions reductions in the electricity generation sector. • See 4.D.

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4.D.4.	<p>Expand the State’s efforts to improve the efficiency of electricity generation and encourage use of indigenous and renewable energy resources, including solar, wind, waste methane, geothermal, sustainable biomass, combined heat and power, clean and efficient distributed generation.</p> <hr/> <ul style="list-style-type: none"> • In 2003, NYSERDA’s natural gas exploration and development program marked accomplishments on several fronts – <ul style="list-style-type: none"> » NYSERDA looked at the natural gas potential in 40 of New York’s counties This work led to new exploration and leasing activity in eastern New York, the Southern Tier, the Champlain Valley, and the Tug Hill Plateau. » NYSERDA helped exploration companies better understand the nature of production from New York’s reservoirs. Included were numerous studies of the Trenton/Black River formation which now accounts for 66 percent of New York State’s production of natural gas. » NYSERDA revived interest in shale gas production in New York through targeted research and active technology transfer. Since 2002, a number of shale test wells have been drilled in New York. » NYSERDA assisted in the drilling of 19 gas test wells in eight counties in New York, of which 13 are producers. From 1999 to 2002, these 13 wells produced 427 million standard cubic feet of natural gas, with an estimated wholesale wellhead value of \$1.4 million. • See 3.A.2.
4.D.5.	<p>Adopt a specific plan to develop an indigenous biofuels industry in New York to produce, refine, and market transportation and other fuels from indigenous biomass resources.</p> <hr/> <ul style="list-style-type: none"> • See 3.A.4.
4.D.6.	<p>Develop a program that allows businesses to enter into voluntary agreements to meet certain energy efficiency targets and reduce greenhouse gas emissions. To assist businesses in meeting such voluntary agreements, the State should offer technical assistance, public recognition, expedited regulatory permit review, and financial incentives, as appropriate or necessary.</p> <hr/> <ul style="list-style-type: none"> • Through various New York Energy SmartK programs, NYSERDA provides cost-shared technical assistance to businesses to reduce their building operating costs. Over 800 businesses have been provided assistance in the last three years.
4.D.7.	<p>Redirect transportation funding toward energy-efficient transportation alternatives, including public transportation, walking, and bicycling, and provide incentives to encourage greater use of related alternatives that improve transportation efficiency.</p> <hr/> <ul style="list-style-type: none"> • DOT is providing guidance on implementing this recommendation to municipal planning organizations and staff of its regional offices. This guidance is available to other transportation agencies. • See 3.A.1., 1.E.

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4.D.8.	<p data-bbox="298 302 1433 359">Include in the State transportation planning and State Environmental Quality Review Act (SEQRA) related processes, consideration of CO₂ production and mitigation strategies, as appropriate.</p> <hr/> <ul data-bbox="298 411 1029 548" style="list-style-type: none"> <li data-bbox="298 411 867 548">• Consideration of CO₂ production and mitigation is being quantified in transportation planning and State Environmental Quality Review (SEQR) documents and is being considered for inclusion as a key decisionmaking criterion. <li data-bbox="899 411 1029 436">• See 3.A.1.
4.D.9.	<p data-bbox="298 739 1479 798">Target open space funding to prevent suburban sprawl, promote Quality Communities, reduce vehicle miles traveled, and support, adopt, and enhance transportation measures that reduce energy use and pollutant emissions.</p> <hr/> <ul data-bbox="298 850 1081 932" style="list-style-type: none"> <li data-bbox="298 850 867 932">• See 4.D.10. For additional information on efforts to reduce vehicle miles traveled and adopt transportation measures that reduce energy use and pollutant emissions. <li data-bbox="899 850 1081 875">• See 3.A.1., 1.E.
4.D.10.	<p data-bbox="298 1125 1507 1207">Support, adopt, and enhance transportation measures that reduce energy use and pollutant emissions, such as Commuter Choice, Ozone Action Days, diesel vehicle retrofits, improved traffic signal coordination with light emitting diode (LED) replacement technology, transportation system management, and other similar actions.</p> <hr/> <ul data-bbox="298 1260 1516 1619" style="list-style-type: none"> <li data-bbox="298 1260 867 1619">• As part of a coalition of State, city, federal, institutional, and environmental organizations, NYSERDA and the New York City Department of Transportation will manage the New York Harbor Private Ferry Emissions Reduction Program. Funded with \$5 million from the Federal Transit Administration and \$1.8 from New York City Department of Transportation's federal Congestion Mitigation Air Quality funds, the program aims to cut pollution from over 40 diesel-powered private vessels by identifying and implementing technologies that can reduce harmful emissions up to 90 percent. Private ferries make more than 1,000 trips a day in New York Harbor. <li data-bbox="899 1260 1516 1371">• As part of a funded transportation program, transportation agencies in the downstate area are in the process of including these activities as enhancements to existing programs and as new initiatives. <li data-bbox="899 1398 1081 1423">• See 3.A.1., 1.E.

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4.D.11.	<p>Encourage low-cost, passive building efficiency measures, such as white roofs, passive solar design, and improved foundation membranes, and incorporate such measures in the State’s building construction codes.</p> <p>In addition, the State should support local building and development projects that include funding for open space conservation and urban forestry and that reduce the need for air-conditioning in urban “heat islands.”</p> <hr/> <ul style="list-style-type: none"> • NYSERDA and the New York State Department of Environmental Conservation have undertaken a joint pilot project to address the heat-island issue in high density urban neighborhoods, primarily in the New York City metropolitan area, through urban forestation. The parameters of the project, which will be undertaken with the assistance of municipal and community organizations, are being developed and will likely include technical assistance and some financial incentives. • NYSERDA and the New York State Division of Housing and Community Renewal are supporting research into cost-effective strategies for reducing the urban heat island effect in high-rise apartments in low-income New York City neighborhoods. • The New York State Department of Environmental Conservation has developed an urban forestry grant program for municipalities and community groups. This program will award approximately \$500,000 for urban forestry initiatives in 2004. • As part of its demand management efforts, NYSERDA will also consult with the national labs to obtain technical information on building technologies that may be used to mitigate heat islands. These heat-island mitigation efforts may be linked to demand reductions on the electric grid. • NYSERDA is supporting development of an environmental learning center at a new 1.5 acre park on the East River in Manhattan. The park is being developed from a former brownfield by the New York City Economic Development Corporation. The park is landscaped with native plants and trees and will be a model for the development, implementation, and operation of urban energy and environmental learning centers.
4.D.12.	<p>Expand research, development, and demonstration of energy and GHG-efficient vehicle technologies, add GHG goals to vehicle tax credits and incentives, and coordinate with other states to encourage improvements in vehicle fuel economy.</p> <hr/> <ul style="list-style-type: none"> • See 4.D.3.
4.D.13.	<p>Working with regional and local planning organizations, analyze and quantify the energy use and air pollution emissions expected to result from transportation plans and programs.</p> <hr/> <ul style="list-style-type: none"> • Energy and air quality impacts are being quantified by Municipal Planning Organizations as part of the development and adoption of long-range plans and Transportation Improvement Programs. • See 4.D.
4.D.14	<p>Support the design and construction of energy-efficient and environmentally-friendly “green buildings” through financial incentives, technical assistance, and related program initiatives</p> <hr/> <ul style="list-style-type: none"> • Through the end of 2002, technical analyses indicated that the energy efficiency of buildings can exceed the requirements of the New York State Energy Code by an average of 32 percent, while reducing annual carbon dioxide emissions by more than 22,000 tons. Peak demand reductions in green buildings averaged 40 percent with an increase of less than 1 percent in construction costs. If widely implemented, energy-efficient measures could reduce operating costs by \$3.5 million per year. • The New York State Green Building Tax Credit provides a state tax credit of \$15.75 per square foot for commercial buildings larger than 20,000 square feet. The tax credit, which was developed by the New York State Department of Environmental Conservation and NYSERDA, is administered by DEC. The tax credit became available in 2002 and is available for five years.

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4.D.14. (Con'd)	<ul style="list-style-type: none"> • In 2002, NYSERDA's Green Buildings Program supplied technical and financial assistance in the development of the New York City Department of Design and Construction's High Performance Building Guidelines and Battery Park City Authority's Residential Environmental Guidelines. In 2003, NYSERDA's Green Buildings Program supplied technical assistance in the design of the New York Hall of Science, Queens Botanical Garden, and the Brooklyn Children's Museum. • In 2003, the PV Incentive program and the PV ENERGY STAR® demonstration program had 78 residential applications representing a total installed capacity of 306 kilowatts and 9 commercial systems totaling 80 kilowatts. The average size of the residential projects is 4.4 kW and the average size of the commercial projects is 8.9 kW. • Through 2003, NYSERDA's ENERGY STAR® Labeled Homes Program has provided incentives to more than 500 new home builders to build more than 1,800 new homes which are 40 percent more energy efficient than homes built to applicable building codes. • The Green Building Tax Credit has been awarded to five buildings for a total of \$18.9 million. \$6.1 million remain available. Several projects are in development including the World Trade Center and several buildings in Battery Park City. • NYSERDA's photovoltaic program provides support for the installation of photovoltaics in new construction and for innovative applications in existing buildings and the residential sector. • Through the end of 2003, NYSERDA's large photovoltaic program for commercial and institutional buildings had received eighteen applications and installed six projects representing 249 kilowatts and 348,858 kilowatt hours.

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Policy Objective 5. Ensuring fairness, equity, and consumer protections in an increasingly competitive market economy.			
5.A.	<p>The State will examine the feasibility of effectively aligning public policy interests in energy efficiency, combined heat and power, and indigenous and renewable-based electricity generation with the financial interests of distribution utilities and their customers.</p> <hr/> <ul style="list-style-type: none"> On May 2, 2003, the New York State Public Service Commission instituted Case 03-E-0640, <i>Proceeding on Motion of the Commission to Investigate Potential Electric Delivery Rate Disincentives Against the Promotion of Energy Efficiency, Renewable Technologies and Distributed Generation</i>, to identify the extent to which New York’s electricity delivery utility rate structures produce financial disincentives to the promotion of energy efficiency, renewable technologies, and distributed generation and to develop recommendations for necessary rate design changes to eliminate the disincentives. A procedural conference was held before Administrative Law Judge J. Michael Harrison on June 16, 2003. Utilities provided the “typical” bill analyses called for in the <i>Order Instituting Proceeding</i> on September 8, 2003. Initial Comments were filed by the parties on October 24, 2003. Reply Comments were filed by the parties on November 21, 2003. 		
5.B.	<p>The State supports expediting efforts to have electricity distribution and customer service prices to consumers reflect the true cost of service and eliminate inter-class and intra-class subsidies, to the extent practicable.</p> <hr/> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> The PSC continues to work toward revised rate designs that provide customers accurate price signals. <p>In July 2000, the Commission instituted a proceeding (Case 00-E-1208) to examine the then current practice of setting separate delivery rates for New York City and Westchester County. On November 25, 2003, the Commission voted to approve a rate adjustment that established a uniform system-wide delivery rate for electric customers of Consolidated Edison Co. of New York, Inc.</p> </td> <td style="width: 50%; vertical-align: top;"> <p>The first phase of the rate adjustment will go into effect in May 2004 and will be phased in over three years and is expected to result in a rate reduction of 2.6 percent per year for Westchester County full-service customers and an increase of approximately 0.4 percent per year for customers in New York City. Annual bill impacts will reflect actual market conditions.</p> <ul style="list-style-type: none"> See 2.D.2. </td> </tr> </table>	<ul style="list-style-type: none"> The PSC continues to work toward revised rate designs that provide customers accurate price signals. <p>In July 2000, the Commission instituted a proceeding (Case 00-E-1208) to examine the then current practice of setting separate delivery rates for New York City and Westchester County. On November 25, 2003, the Commission voted to approve a rate adjustment that established a uniform system-wide delivery rate for electric customers of Consolidated Edison Co. of New York, Inc.</p>	<p>The first phase of the rate adjustment will go into effect in May 2004 and will be phased in over three years and is expected to result in a rate reduction of 2.6 percent per year for Westchester County full-service customers and an increase of approximately 0.4 percent per year for customers in New York City. Annual bill impacts will reflect actual market conditions.</p> <ul style="list-style-type: none"> See 2.D.2.
<ul style="list-style-type: none"> The PSC continues to work toward revised rate designs that provide customers accurate price signals. <p>In July 2000, the Commission instituted a proceeding (Case 00-E-1208) to examine the then current practice of setting separate delivery rates for New York City and Westchester County. On November 25, 2003, the Commission voted to approve a rate adjustment that established a uniform system-wide delivery rate for electric customers of Consolidated Edison Co. of New York, Inc.</p>	<p>The first phase of the rate adjustment will go into effect in May 2004 and will be phased in over three years and is expected to result in a rate reduction of 2.6 percent per year for Westchester County full-service customers and an increase of approximately 0.4 percent per year for customers in New York City. Annual bill impacts will reflect actual market conditions.</p> <ul style="list-style-type: none"> See 2.D.2. 		
5.C.	<p>The State should review the recommendations from the Department of Environmental Conservation’s Environmental Justice Advisory Group and implement appropriate recommendations in a timely manner.</p> <hr/> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> DEC released its final environmental justice policy in April 2003 that requires that certain permits undergo screening to determine whether the affected community is an environmental justice community. If a community is so identified, the policy requires expanded public outreach to educate, inform, and include the community in the permit review process. </td> <td style="width: 50%; vertical-align: top;"> <p>Pursuant to the policy, two new working groups were established. One group will determine how to include health information in an environmental assessment, and the second group will explore the issue of disparate impacts.</p> </td> </tr> </table>	<ul style="list-style-type: none"> DEC released its final environmental justice policy in April 2003 that requires that certain permits undergo screening to determine whether the affected community is an environmental justice community. If a community is so identified, the policy requires expanded public outreach to educate, inform, and include the community in the permit review process. 	<p>Pursuant to the policy, two new working groups were established. One group will determine how to include health information in an environmental assessment, and the second group will explore the issue of disparate impacts.</p>
<ul style="list-style-type: none"> DEC released its final environmental justice policy in April 2003 that requires that certain permits undergo screening to determine whether the affected community is an environmental justice community. If a community is so identified, the policy requires expanded public outreach to educate, inform, and include the community in the permit review process. 	<p>Pursuant to the policy, two new working groups were established. One group will determine how to include health information in an environmental assessment, and the second group will explore the issue of disparate impacts.</p>		

No.	State Energy Plan Recommendation Progress to Date
5.D.	<p>The State encourages agencies to consider the effectiveness, efficiency, and coordination of their low-income energy assistance programs, including the New York Energy SmartK program, the Weatherization Assistance Program, the Low-Income Home Energy Assistance Program, and other State programs that offer incentives, assistance, and information services to improve the efficiency of energy use and reduce the energy burden of low-income households. The State should consider consolidating programs where opportunities exist to improve administrative efficiency and customer service.</p> <hr/> <ul style="list-style-type: none"> • By Order issued and effective on May 30, 2003, the PSC established <i>Conditions for the Continuation and Transfer of Low-Income Programs and Establishing System Benefits Charge Funding</i>. Through this Order, DPS staff and the utilities were directed to work with NYSERDA to develop a new coordinated low-income energy efficiency and weatherization program. Under such a program, NYSEG and Niagara Mohawk would refer customers that are receiving ratepayer-funded payment assistance to NYSERDA for energy efficiency and weatherization services. As administrator of the statewide system benefits charge program, NYSERDA is directed to work with the utilities and staff to develop the details of a new NYSERDA low-income program, to commence July 1, 2004. To that end, NYSERDA is to submit a low-income energy efficiency and weatherization program and transition plan by February 1, 2004, to be followed by a public comment period. • NYSERDA has collaborated with the New York State Office of Temporary and Disability Assistance, which is responsible for administering the Home Energy Assistance Program (HEAP) on a low-income fuel-buying pilot program in ten counties. This initiative is designed to significantly increase the buying power of available New York State HEAP funds by working with the network of fuel vendors. • The NYSERDA-funded Low Income Forum on Energy (LIFE) Steering Committee is actively working in this area. LIFE brings together representatives of utility companies, energy services companies, community-based organizations, State and local governments, and other stakeholders to coordinate the design and delivery of low-income programs. The Home Energy Assistance Program, the Weatherization Assistance Program, and utility-run programs are included in the coordination effort. • In implementing its Assisted Multifamily Program and Assisted Home Performance with ENERGY STAR® Program, NYSERDA has coordinated funding and program decisions with the New York State Division of Housing and Community Renewal to facilitate the upgrading of numerous low-income dwellings. By closely interacting with the United States Department of Housing and Urban Development, the New York City Department of Housing Preservation and Development, and the New York State Department of Housing and Community Renewal, NYSERDA is able to leverage, on average, \$3 for every \$1 of SBC funding.