

December 1, 2003

#### E-FILED

The Honorable Magalie R. Salas, Secretary Federal Energy Regulatory Commission 888 First Street, N.E. Washington, DC 20426

New York Independent System Operator, Inc.
Bi-Annual Compliance Report on Demand Response Programs and the Addition of New Generation in Docket No. ER01-3001-00

Dear Ms Salas:

Pursuant to Ordering Paragraph "(B)" of the October 25, 2001 Order in this proceeding (the "Initial Order"), 1 Ordering Paragraph "(C)" of the July 19, 2002 Order in this proceeding (the "July 19, 2002 Order"), 2 paragraph 5 of the September 3, 2002 letter order in this proceeding (the "September 3, 2002 Order"), 3 and paragraph 7 of the October 24, 2003 Order in this Proceeding (the "October 24, 2003 Order), 4 the New York Independent System Operator, Inc. ("NYISO"), by counsel, hereby submits this report. The report addresses: (i) the NYISO's existing demand response programs, the status of real-time demand response mechanisms, and the effects of demand response programs on wholesale prices; and (ii) the status of new generation resources in the New York Control Area ("NYCA"). 5 This submittal represents the NYISO's fifth report in compliance with the Initial Order and the subsequent orders listed above

## I. <u>List of Documents Submitted</u>

The NYISO submits the following documents:

1. This filing letter;

New York Independent System Operator, Inc., 97 FERC ¶ 61, 095 (2001).

New York Independent System Operator, Inc., 100 FERC  $\P$  61, 081 (2002).

New York Independent System Operator, Inc., 100 FERC ¶ 61,243 (2002).

New York Independent System Operator, Inc., 105 FERC ¶ 61,115 (2003).

<sup>&</sup>lt;sup>5</sup> Capitalized terms not otherwise defined herein shall have the meaning set forth in Article 2 of the NYISO's Market Administration and Control Area Services Tariff.

- 2. A report entitled "NYISO 2003 Demand Response Programs" ("Attachment I");
- 3. Tables summarizing the load and capacity outlook for the entire NYCA, New York City and Long Island ("Attachment II");
- 4. A table listing proposed new interconnections in the NYCA ("Attachment III");
- 5. A table, prepared by the New York State Department of Public Service, listing proposed new power plant projects that have been reviewed pursuant to New York State's "Article X" process ("Attachment IV");
- 6. A presentation version of the NYISO's *Power Alert III* (Attachment V); and,
- 7. A form of *Federal Register* Notice ("Attachment VI").

#### II. <u>Copies of Correspondence</u>

Copies of correspondence concerning this filing should be served on:

Robert E. Fernandez, General Counsel and Secretary Belinda F. Thornton, Director of Regulatory Affairs Gerald R. Deaver, Senior Attorney New York Independent System Operator, Inc. 3890 Carman Road, Schenectady, NY 12303 Tel: (518) 356-6153

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#### **III.** Service List

Copies of this filing are being served on all parties designated on the official service list for this proceeding maintained by the Secretary of the Commission. The NYISO has also mailed a copy of this filing to all parties who have executed Service Agreements under the NYISO's Open-Access Transmission Tariff or its Market Administration and Control Area Services Tariff, and to the electric utility regulatory agencies in New York, New Jersey, and Pennsylvania.

#### IV. Compliance Report

In the Initial Order in this proceeding, the Commission extended the effectiveness of the NYISO's Temporary Extraordinary Procedures Authority ("TEP") and the \$1,000 MWh bid cap on certain types of bids into the NYISO-administered energy markets ("Bid Cap") until certain market conditions were met. Among the reasons for extending the TEP and the Bid Cap, the Commission found that the electric energy supply situation in New York remained tight. The Commission further noted that loads remain unable to reduce purchases in response to dramatic price increases and that experience with the NYISO's demand response programs was insufficient to justify lifting the Bid Caps. Accordingly, the NYISO was directed to file bi-annual reports, beginning December 1, 2001, on the progress of the NYISO's demand response programs, the development of real-time demand response mechanisms, and on the progress of generation additions in New York.

The NYISO's initial report was accepted by the July 19, 2002 Order with the further requirement that the NYISO include information on the effects of demand response programs on wholesale prices in future reports. The September 3, 2002 Order directed the NYISO to indicate which proposed generation projects it regards as likely to enter service at the times indicated in subsequent reports. The October 24, 2003 Order directed the NYISO to include more current publicly available information from other NYISO documents regarding the progress of generation development in New York.

#### A. Status of NYISO Demand Response Programs for 2003

As in 2002, the NYISO's three demand response programs for the Summer 2003 Capability Period included three specific programs: the Emergency Demand Response Program ("EDRP"), the Day-Ahead Demand Response Program ("DADRP"), and Installed Capacity/ Special Case Resources (ICAP/SCR).

Established under the NYISO's Market Administration and Control Area Services Tariff ("Services Tariff"), the EDRP provides for payments to Curtailment Service Providers that voluntarily reduce their Loads at the NYISO's request to reduce peak demands in the NYCA during an Emergency condition.<sup>11</sup> Also established under the Services Tariff, the

<sup>&</sup>lt;sup>6</sup> 97 FERC ¶ 61,095 at 8. [Initial Order]

<sup>&</sup>lt;sup>7</sup> *Id.* at 9. [Initial Order]

<sup>&</sup>lt;sup>8</sup> 100 FERC ¶ 61,081 at 8. [July 19, 2002 Order]

<sup>9 100</sup> FERC ¶ 61,243 at 3. [September 3, 2002 Order]

<sup>105</sup> FERC ¶ 61,115 at 4. [October 24, 2003 Order]

Under the EDRP, qualified demand resources are paid for reducing their energy consumption when the NYISO declares that an operating reserves deficiency or major

DADRP allows Demand Side Resources that are qualified to participate in the competitive Energy markets to bid Load reductions into the Day-Ahead Energy Markets as if such reductions are a competing supply resource. <sup>12</sup> Special Case Resources are the distributed "behind the meter" generators through which some Demand Reduction Providers achieve the Load reductions that are made available to the NYISO. <sup>13</sup> Special Case Resources may also qualify to provide Installed Capacity ("ICAP") in the NYISO's Unforced Capacity markets pursuant to the ICAP provisions of the Services Tariff.

In compliance with the Commission's prior orders in this proceeding, the semi-annual reporting information regarding these demand response programs is provided in Attachment I to this filing. Attachment I is a report analyzing participation in all three programs, response to reserve deficiency/emergency events, program benefits and impact on LBMP, and proposed changes to the EDRP/SCR programs.

In an additional development during 2003 that is not included in Attachment I, the New York Public Service Commission ("NYPSC") instituted a proceeding to evaluate the need for changes in the existing voluntary real-time pricing ("RTP") programs that are currently offered by five of the six major electric utilities operating in New York State. The changes under consideration included implementing mandatory RTP programs for certain customer classes. Anticipating the benefits of increased participation in its own demand response programs, the NYISO had recommended in its comments to the NYPSC that mandatory programs would be appropriate for some customer classes. The NYPSC issued an order on October 30, 2003, however, that directed utilities to place increased emphasis on promoting voluntary RTP programs, but did not expand the use of mandatory RTP programs at this time.

emergency exists. There is no obligation to respond to the NYISO's declaration. Participation in the program occurs through "Curtailment Services Providers," which are paid \$500/MWh for verified load reductions.

The DADRP permits demand resources to submit demand reduction bids in the DAM. These bids are treated the same as suppliers' bids and can set the market clearing price

Under the ICAP/SCR, retail electricity customers are paid for making their load reduction capability available over a specified contract period. Thus, ICAP/SCR participants are paid in advance for agreeing in advance to curtail usage during times when the grid could be jeopardized. Unlike, EDRP participants, ICAP/SCR participants are subject to penalties if they fail to curtail on the NYISO's request.

#### B. Status of Addition of New Generation Resources

The NYISO's semi-annual compliance report regarding the status and progress of the development of new generation resources in New York includes: (i) the three tables of data contained in Attachments II, III, and IV to this filing and discussed in more detail below; (ii) a narrative description of the significant issues currently facing the development of new generation resources; and, Attachment V consisting of a "presentation" version of "Power Alert III," which was released by the NYISO in May of this year and is the third in a series of its annual assessments of energy issues facing New York. The full text of this report is also posted on the NYISO's web site – www.nyiso.com.

#### 1. Attachment II – Forecasted Load and Capacity Data

Attachment II to this filing presents, in the first table of data, the most recent forecasted load and capacity data for New York State as a whole, and for the New York City and Long Island Load Zones, for the Summer 2004 Capability Period. <sup>14</sup> The second, third, and fourth tables in Attachment II identify new generating resources that are currently expected to be on line and available by June 2004 for upstate New York, New York City, and Long Island, respectively.

As the first table indicates, the statewide need for external resources to balance available supplies with forecasted demands for Summer 2004 has increased to 931 MW from the prior report's figure of 703 MW. New York City's deficiency for its locational In-City capacity requirement has increased slightly from the last report to 260 MW. Long Island's available supplies, however, continue to slightly exceed its locational capacity requirements.

With respect to changes from the NYISO's previous semi-annual report, the addition of the Athens Generating Plant, located in Greene County, New York, represents the first instance of the addition of a new generating resource outside of the constrained New York City and Long Island Load Zones in these reports to the Commission. Located in Load Zone F, Athens is a 1,080 MW generating unit that is currently in testing and is expected to be inservice in early 2004.

As of the date of this report, the NYISO is anticipating a planned 250 MW unit at the KeySpan Ravenswood facility to be the only addition of new generation in the New York City Load Zone for Summer 2004. The three gas turbine units that were indicated in the June 2003 report as being expected for the Summer 2003 period did not, in fact, come into service and have been delayed, principally as a result of transmission interconnection limitations. These

Summer Capability Periods are the six-month period from May 1 through October 31 of each year. The highest peak demands in the New York Control Area typically occur at some point during a Summer Capability Period.

previously reported units were indicated as "KIAC @JKF", Bay Energy @ Gowanus", and NYC Energy @ Kent."

Four new gas turbines are expected to be in service by June 2004, as indicated in Attachment II. The KeySpan @ Freeport turbine, previously reported as being available for the Summer 2003 period, was delayed to 2004, and the previously reported "PSEG @ North Bellport" unit has been delayed beyond 2004.

## 2. Attachment III – Proposed Transmission Interconnection Projects

Attachment III is a four-page table of the most current proposed transmission system enhancements in the NYCA. The data presented in this table has not changed from the NYISO's June 2003 report to the Commission. While the proposed enhancements in Attachment III include some that are proposed transmission upgrades for reasons other than new generation, the majority of the proposed projects, in fact, represent new interconnections for proposed generation additions.

As indicated on the last page of Attachment III, 25,392 MW of the interconnection projects under review for New York are related to potential in-state additions of new generation. This table also indicates, however, that only 6,000 MWs of this planned new generation has received the necessary certifications from the New York Public Service Commission ("NYPSC"). Moreover, while the Athens project is anticipated to be in service in early 2004, the proposed in-service dates for the other certified projects are in a range of one to eight years after 2004.

#### 3. Attachment IV – Table of NYPSC Article X Proceedings

As in prior reports, for the Commission's information, the NYISO has also included, as Attachment IV to this filing, a four-page table of applications for siting authority for new generation currently pending before the New York Department of Public Service ("NYPSC"). This table is reproduced from the NYPSC's website and a link to this table is included on the home page of the NYISO's website. This table indicates that approximately 3,100 MWs of already certified Article X projects are under construction, with in-service date estimates ranging from the third quarter of 2003 to 2006. According to the NYPSC's table, the eleven certified projects either under construction or pending construction represent an increase of one project from the NYISO's June 2003 report.

The Commission's September 3, 2002 Order directed the NYISO, in subsequent filings, to indicate which proposed generation projects it regards as "likely" to enter service at

the times indicated in the NYISO's report.<sup>15</sup> The projected in-service dates indicated in Attachment IV to this report do not differ at this time from the NYISO's best estimate of when proposed projects will be complete based on all publicly available information. Among other things, the NYISO does not have the information about developers' business strategies, or corporate finances, that would be needed to make an informed prediction independent of the predictions reflected in Attachment IV. Consequently, with the limited information available to it, the NYISO anticipates that the listed projects will achieve their forecasted in-service dates.

### 4. Significant Issues Facing the Development of Generation Resources

#### A. Barriers to Development

Under the best of circumstances, the development of a new generating resource in New York State is a challenging undertaking. Several recent circumstances, however, have the potential for creating additional barriers to generation developers and are a concern to the NYISO. These potential barriers, and the NYISO's response to them, encompass both regulatory, business and market issues, and transmission grid operation issues.

#### (i) Regulatory Uncertainties

As noted in *Power Alert III*, power plant siting was governed largely by local zoning restrictions prior to New York's adoption of Article X of its Public Service Law. Article X was intended, and has proven to be, a means for expediting the siting process by providing a "one-stop" avenue for reviewing and approving power plant site proposals. This law, however, expired on December 31, 2002, and, as yet, has not been renewed by the New York State legislature. Consequently, while the NYPSC will continue its reviews of those projects that submitted applications prior to the expiration of the law, it is uncertain whether a similar expedited licensing process will be available to future generating project proposals.

Creating additional regulatory uncertainties, which, in turn, discourage investment in new generation are the, the unresolved United States Congressional debate over the Commission's Standard Market Design ("SMD") and the continuing tension over jurisdictional issues between Federal and State regulators. Consequently, the NYISO supports the Commission's efforts to develop standard market rules and anticipates the implementation of its own similar SMD 2.0 in the near future.

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#### (ii) Business and Market Issues

In addition to the necessary licenses and permits, new generating projects require significant amounts of capital, the availability of which continues to be a concern to both developers and the NYISO. In *Power Alert* III, the NYISO previously noted that the effects of the disclosures of the corporate accounting and financial scandals in the energy and other industries and the subsequent severe financial problems of some merchant generation companies has impacted the near-term financing for new merchant generation projects.

The New York energy markets reflect an extremely high level of divestiture of generation ownership from traditional operators. These markets, including the competitive markets in neighboring control areas to New York, now govern the entry of new generation in New York State. To ensure that potential developers can, indeed, secure financing and construct new generation resources in New York, the NYISO is endeavoring to develop market rules that produce effective long-term price signals. Such price signals will indicate market revenues, over the long-run equilibrium, sufficient to cover both the market entry costs of new development projects and the ongoing costs of already existing generation units.

The NYISO is concerned, therefore, that in his recently presented Summer 2003 review of the New York electricity markets, the NYISO's Independent Market Advisor, Dr. David B. Patton concluded that net revenues, defined as market revenues net of operating costs, have increased only slightly from 2002 to 2003 for all New York Load Zones. Moreover, capacity revenues have slightly declined in 2003 in all Load Zones. Dr. Patton's analysis also concluded that current market revenues do not provide an adequate economic incentive to construct a new gas turbine generator either within or outside of New York City at this first-year stage of the three-year phase-in of a new ICAP Demand Curve, discussed further below. The expectation, however, is that market revenues would be sufficient with the completion of the Demand Curve phase-in period.

Accordingly, a significant portion of the NYISO's organization resources have and will continue to be devoted to developing and implementing market rules and structures that will provide economically efficient price signals that will provide opportunities for market revenues sufficient to sustain existing generation and attract new generation development. For example, as referenced above, the implementation of the NYISO's SMD 2.0, which includes a new Real-Time Scheduling component, will not only move New York closer to the Commission's vision of standardized markets, but is designed to provide more efficient price signals. Existing generators have been concerned that price signals during supply scarcity conditions in New York have not consistently reflected those scarcity conditions, and both

Summer 2003 Review of the New York Electricity Markets, presented to October 21, 2003, Joint NYISO Board of Directors and Management Committee Meeting, by Dr. David B. Patton, Independent Market Advisor.

SMD 2.0 and earlier discrete market rule changes already implemented by the NYISO are intended to provide peak demand price signals that adequately reflect the resulting scarcity of energy supplies.

The Commission's approval earlier this year of demand pricing curves for New York's Installed Capacity markets is another example of an effort to develop market rules that will provide market revenues that reflect workable competition while providing economic incentives for new investment. The Commission specifically found that an ICAP Demand Curve will provide better price signals to investors for the construction of new generation, encourage the formation of long-term bilateral transactions (which should further encourage investors), and reduce incentives to withhold capacity. Unforced Capacity Deliverability Rights ("UDRs"), designed within the NYISO's governance process and also approved by the Commission earlier this year, will provide another tool for Installed Capacity suppliers, both current and future, to make their capacity available in the NYISO's historically constrained and, thus, higher-revenue Load Zones.

### (iii) Transmission Grid Issues

As the NYISO has noted in numerous venues including *Power Alert III*, an efficient transmission grid is a necessary component of competitive wholesale markets. Thus, the NYISO noted with concern in *Power Alert III* that transmission expansion in New York is still being driven primarily by reliability needs and the interconnection of new generation resources. Conversely, no major proposals for upgrades to the bulk power high-voltage alternating current network to enhance market efficiency and reduce congestion are currently in the licensing or construction process in New York.

In *Power Alert III*, the NYISO included numerous recommendations with respect to transmission issues, including developing increased transmission capability for congested zones, implementing a transmission expansion planning process that facilitates new transmission investment, and addressing cost allocation formulas and cost recovery mechanisms in appropriate forums.

Currently, the NYISO has undertaken or is participating in specific efforts impacting each of the earlier recommendations. The NYISO is encouraging and, where possible, facilitating the development and operation of new high-voltage direct current transmission projects that are designed to provide additional capacity in the congested New York City and Long Island Load Zones. With the full participation of Market Participants through its governance process, the NYISO is presently developing changes to the transmission

<sup>18</sup> *Id.* at 1.

<sup>103</sup> FERC ¶ 61,201 (May 20, 2003.)

expansion planning process to facilitate the expansion of New York's transmission grid. Likewise, transmission expansion cost allocation formulas are being reviewed and amended in that process. The NYISO is conducting an extensive stakeholder consultation process during the course of developing its compliance filing with the Commission's generic Transmission Interconnection Order. Finally, the NYISO is endeavoring to provide the Commission with a sound basis for resolving specific disputes in the transmission planning and cost allocation arena, such as in the current proceeding before the Commission regarding transmission cost allocation issues during 2001.<sup>19</sup>

Specific generator concerns with respect to transmission expansion and interconnection have also been noted to the NYISO. For example, during the course of a NYISO analysis of selected bulk power substations that may require increases in circuit breaker capacities based on the Summer 2003 Capability Period, referred to as a "Short Circuit Assessment," numerous issues of dispute have arisen between Transmission Owners and generators in the relevant working groups and committees. Generators were also concerned during 2003 with delays in the completion of the transmission enhancements necessary to accommodate the interconnection of new generators, which resulted in the NYISO's Operating Committee being required to establish system operation protocols that deviate from Day-Ahead Schedules for certain generators in the event of transmission constraints.

#### 5. Status of New Generation Development – Conclusion

The NYISO noted in *Power Alert III* that New York should set a goal of bringing an additional 5,000 to 7,000 MW of new generation on-line by 2008 to enhance reliability, increase competition, and deliver environmental benefits through the retirement of older, more polluting generating units. The NYISO noted at the same time, however, that after the completion of the current "bubble" of approximately 2,500 to 3,500 of generating projects that will likely be constructed, there is little evidence that serious consideration is being given to developing other additional new generation in New York. This continuing shortfall will continue to be the principal driver behind the NYISO's efforts to enhance its demand response programs and to develop and implement market rules that encourage new investment.

See, KeySpan Energy Development Corporation, et. al. v. New York Independent System Operator, Inc., FERC Docket No. EL02-125-000.

#### V. Federal Register Notice

A form of *Federal Register* Notice is provided herewith. A diskette of the Notice is also provided in WordPerfect format.

Respectfully submitted,

/s/ Robert E. Fernandez

Counsel for

New York Independent System Operator, Inc.

Robert E. Fernandez, General Counsel and Secretary Gerald R. Deaver, Senior Attorney New York Independent System Operator, Inc. 3890 Carman Road Schenectady, NY 12303

cc: Daniel L. Larcamp, Director Office of Markets, Tariffs and Rates, Room 8A-01, Tel. (202) 502-6700

Alice M. Fernandez, Director Office of Markets, Tariffs and Rates -- East Division, Room 71-31, Tel. (202) 502-8284

Robert E. Pease, Acting Director of Division of Enforcement, Office of Market Oversight and Enforcement, Room 52-41, Tel. (202) 502-8131

Michael A. Bardee, Lead Counsel for Markets, Tariffs and Rates, Room 101-09, Tel. (202) 502-8068

Stanley P. Wolf, Office of the General Counsel, Room 101-03, Tel. (202) 502-8891

#### **CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person that has executed a Service Agreement under the NYISO's Open Access Transmission Tariff or Market Administration and Control Area Services Tariff, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.2010 (20001). Dated at Washington, D.C. this 1st day of December, 2003.

/s/ Ted J. Murphy

Ted J. Murphy Hunton & Williams 1900 K Street, N.W. Washington, DC 20006-1109 (202) 955-1588





## NYCA & Locality Load and Capacity Outlook

For Summer 2004 (as of Nov 21, 2003)

<u>Statewide</u>	Total NYCA
Forecast Demand	31,890 MW
Reserve Requirement	5,740 MW
Total Requirement	37,630 MW
NYCA Available Supply	36,699 MW
Need from External or SCRs	931 MW
New York City	
Forecast Demand	11,288 MW
In-City Requirements (80%)	9,030 MW
Available Supply	8,770 MW
In-City Locational Deficiency	260 MW
Long Island	
Forecast Demand	5,040 MW
On-Island Requirements (93%)	4,678 MW
Available Supply	4,982 MW

Potential New Supply for New York State
To Be Installed by June 2004 (as of Nov. 21, 2003)

GeneratorRatingAthens1,080 MW

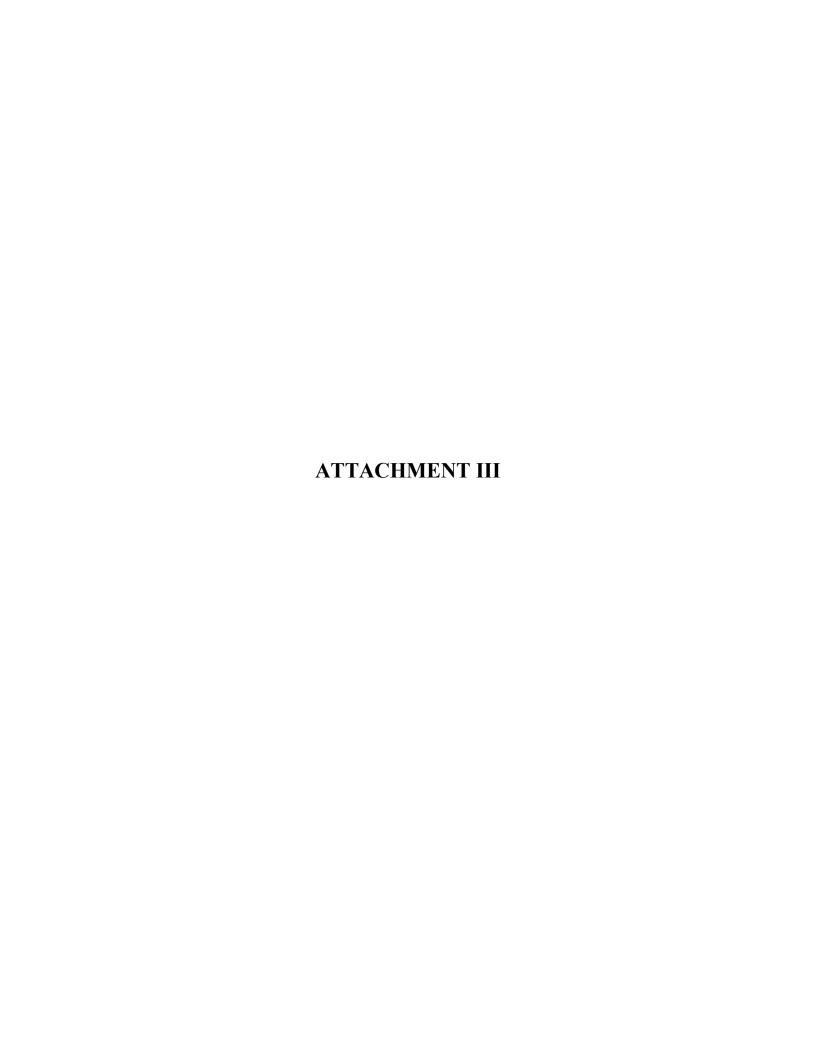
<u>Potential New Supply for New York City</u> to Be Installed by June 2004 (as of Nov 21, 2003)

GeneratorRatingKeySpan Ravenswood250 MW

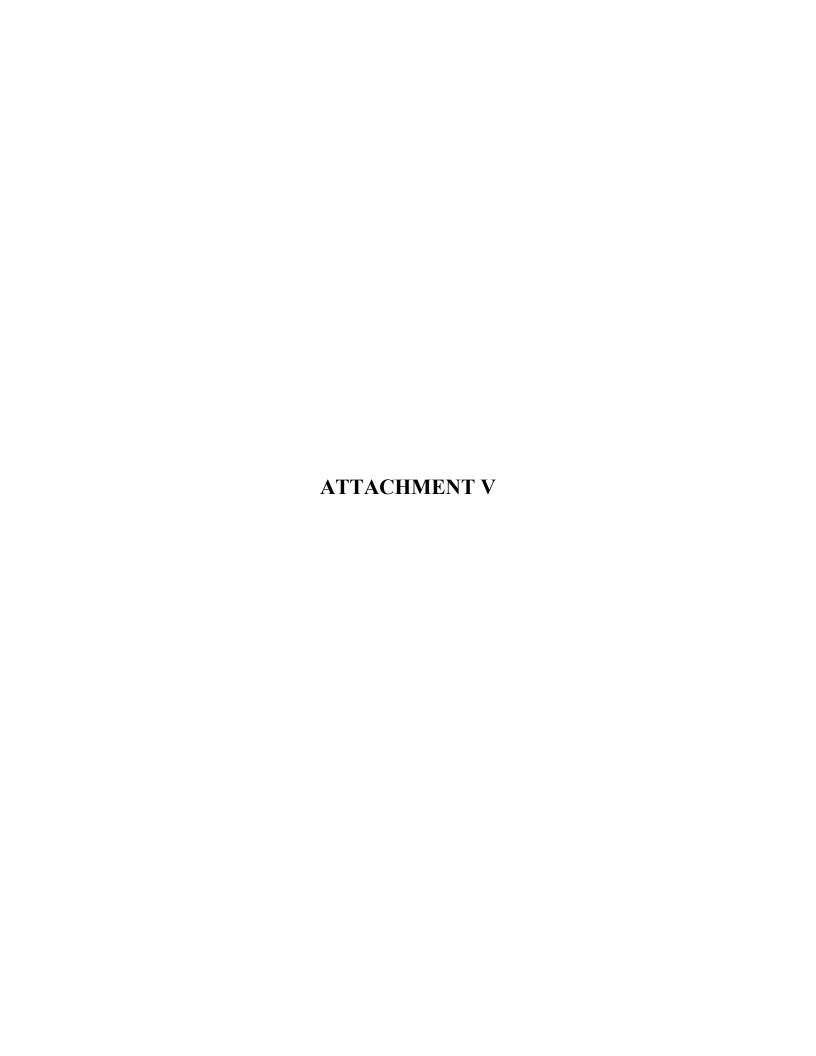
## Potential New Supply for Long Island

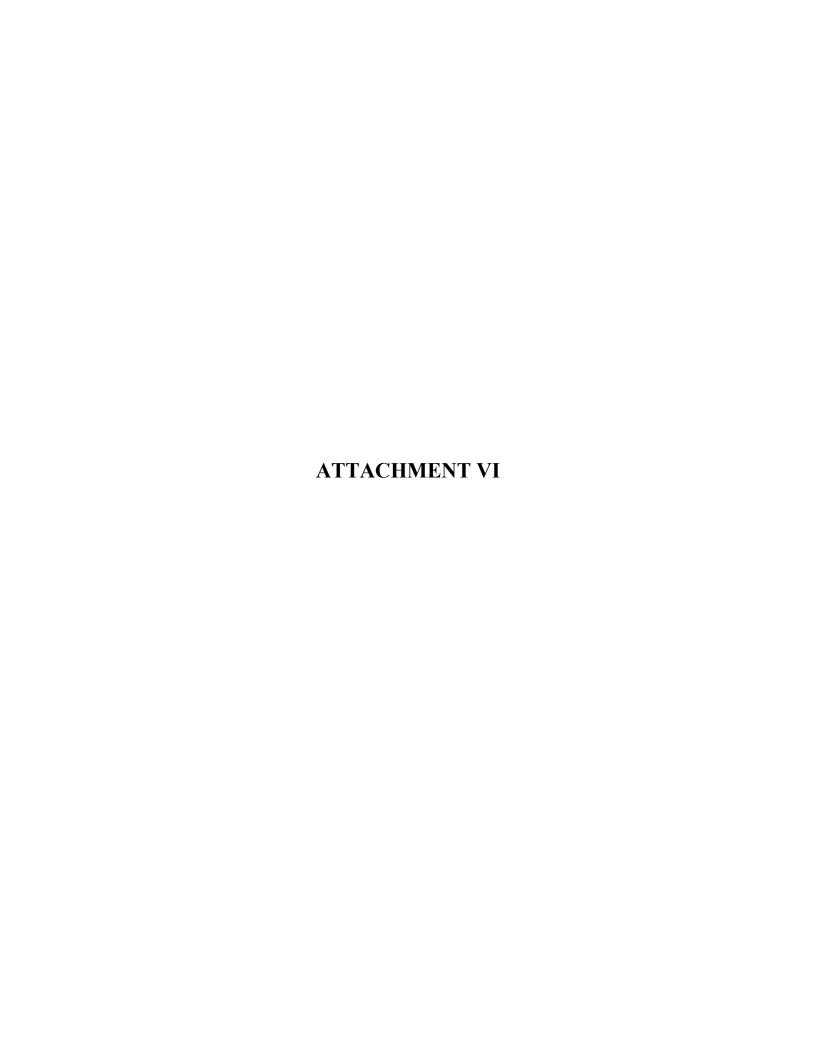
to Be Installed by Summer 2004 (as of Nov 21, 2003)

<u>Generator</u>	<u>Rating</u>
EQQS @ Freeport	44.0 MW
Medford @ Yaphank	45.0 MW
Calpine @ Bethpage	45.0 MW
Keyspan @ Freeport	47.0 MW
Total	181.0 MW









# UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

	New York Independent S	ystem Operator, Inc.	Docket No. ER01-3001-00
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#### NOTICE OF FILING

Take notice that on December 1, 2003, the New York Independent System Operator, Inc. ("NYISO") submitted a report on the status of its demand side management programs and the status of the addition of new generation resources in New York State in compliance with the Commission's previous orders in the above-captioned proceeding. The NYISO has served a copy of this filing upon all parties that have executed service agreements under the NYISO's Open Access Transmission Tariff and Market Administration and Control Area Services Tariff.

Any person desiring to be heard or to protest this filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 C.F.R. § § 385.211 and 385.214). All such motions or protests should be filed on or before \_\_\_\_\_\_\_, 2003. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. All such motions or protests should be filed on or before the comment date, and, to the extent applicable, must be served on the applicant and on any other person designated on the official service list. This filing is available for review at the Commission or may be viewed on the Commission's website at <a href="https://www.ferc.gov">www.ferc.gov</a>, using the FERRIS link. Enter the docket number excluding the last three digits in the docket number filed to access the document. For assistance, call (202) 502-8222 or (202) 208-1659. Protests and interventions may be filed electronically via the Internet in lieu of paper. See, 18 C.F.R. 385.2001(a)(1)(iii) and the instructions on the Commission's website under the "e-filing" link. The Commission strongly encourages electronic filings.

Comment Date:

Magalie R. Salas Secretary