UNITED STATES OF AMERICA
BEFORE THE
ELECTRIC ENERGY MARKET COMPETITION
INTERAGENCY TASK FORCE AND THE
FEDERAL ENERGY REGULATORY COMMISSION

Electric Energy Market Competition Task Force) Docket No. AD05-17-000

COMMENTS OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

The New York Independent System Operator, Inc. ("NYISO") respectfully submits its comments in response to the Electric Energy Market Competition Interagency Task Force's ("Task Force") October 13, 2005 *Notice Requesting Comments on Wholesale and Retail Electricity Competition* ("Notice") in this proceeding. These comments address the Notice's "Wholesale Market Questions" in the context of the regional wholesale electricity markets that the NYISO administers in New York State. They also respond to one "Retail Market Question" having to do with the participation of demand side resources in the NYISO-administered markets.

The NYISO has used its best efforts to answer all of the questions that are within its purview,[1] and has done so as comprehensively as possible. In some cases, the NYISO has provided a single answer to multiple questions that have to do with the same general topic. If the Task Force is interested in obtaining further information on any issue the NYISO would be happy to offer whatever assistance it can.

The NYISO is also a signatory to, and adopts, the concurrently filed comments of the ISO/RTO Council, which address the Notice's "Overview Questions."

[1] Specifically, the NYISO is answering all of the "Wholesale Market Questions" except for A-3, A-7, A-9, A-12, A-13. B-4. C-3, C-6, C-7, D-2, D-6, D-7, E-1, and E-4.

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II. INTRODUCTION

The NYISO is the Independent System Operator responsible for providing open access-transmission service, conducting a security-constrained economic dispatch, administering voluntary bid-based wholesale electricity markets, auctioning transmission congestion hedging instruments, planning transmission system expansions, and preserving reliability in New York State. In 2004, the total dollar value of transactions in the NYISO-administered markets was $7.2 billion.

The NYISO's market design is based on a locational-based marginal pricing ("LBMP") regime that, along with certain others, was the model for the Federal Energy Regulatory Commission's ("FERC") Standard Market Design ("SMD") proposal in 2002. Willing buyers and sellers can also enter into bilateral transactions that use the NYISO-operated transmission system without participating directly in the NYISO-administered markets.

As is discussed in more detail below, the NYISO's LBMP system has arguably been the most advanced in the United States since its inception in 1999. It produces a "co-optimized" dispatch solution under which energy, operating reserves, and regulation service are provided at the lowest possible total cost consistent with reliability. The NYISO has also implemented capacity market measures, sloped installed capacity "demand curves," that are now being emulated in other regions. Finally, the NYISO has led the way in the development of market power mitigation measures that are minimally intrusive and that allow for appropriate scarcity pricing in shortage conditions.

As the NYISO's specific responses explain, wholesale competition in New York, which is built around the NYISO's market design, is working well. The markets are successfully performing their core function, *i.e.*, producing efficient price signals that provide appropriate incentives for new infrastructure development. The NYISO's markets have also proven to be completely compatible with reliability. Although work continues on refining the NYISO's market rules, there is no need for major changes to the NYISO's market design.

III. ANSWERS TO SPECIFIC QUESTIONS

A. Answers to Questions Regarding Wholesale Supply Trading and Participation

Question A1. To what extent does wholesale trading help result in an economic and reliable supply of electricity in each region? What are ways to improve the provision of an economic and reliable supply of electricity?

Wholesale trading through the NYISO-administered markets has brought economic and reliability benefits to New York. The success of restructuring can be measured by market outcomes, including increases in generator availability, levels of liquidity in trading volume, inter-regional trading, and Market Participants' ability to take advantage of the market features available to them. In particular:

- Economic forces have resulted in 2,968 MW of new generation capacity construction since the NYISO's start-up;

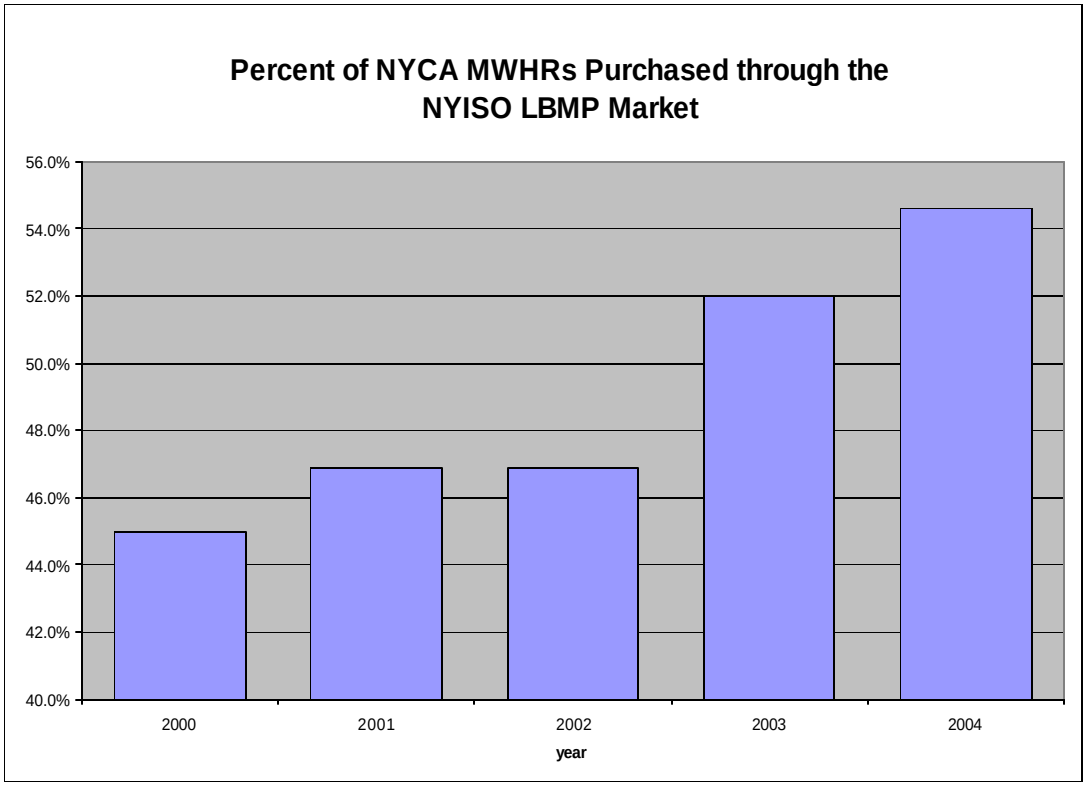
- Availability of existing power capacity in New York has increased, as evidenced by the decreases in the average forced outage rates for generators, which have been reduced by as much as 50 percent. New York's generators are now available on peak 90.3 percent of the time in the summer months versus 86.5 percent prior to NYISO operation. This increase in availability allows existing units to participate in the marketplace for longer times, increasing the level of competition during those times;

- Market Participants have the transparency of market prices across the state with more than 300 generation price points and 11 zonal load price points every hour for the Day-Ahead market and every five minutes for the Real-Time market;

Utilization of tie lines to neighboring regional markets, in both Canada and the U.S., has increased, as evidenced by the increase of purchased installed capacity (ICAP) imports. This level of ICAP imports has increased by more than 1,000 MW since the inception of the NYISO.

Question A2. What share of electric power used to serve retail (or ultimate consumer) load is obtained through wholesale market transactions in each state or region? In what ways has this share changed over the past 10 years and the past 5 years and why?

As is indicated by the table below, approximately fifty percent of wholesale energy transactions in New York State in the years since the NYISO's inception have been conducted through the NYISO-administered markets. From 1999 to 2004, transactions conducted through the NYISO markets increased from 45 percent to just under 55 percent. The remaining transactions took place through bilateral market transactions or pursuant to grandfathered contracts (which pre-dated the NYISO's creation) but are now administered by the NYISO.



Question A4. What opportunities exist for generation owners to sell output in wholesale markets?;

Question A5. What opportunities exist for wholesale power buyers to purchase electricity in wholesale markets? Is demand (negawatts) a product that can be traded in the wholesale market?

The NYISO provides all generators and purchasers, regardless of their ownership, with extensive opportunities to participate in the wholesale markets. The NYISO facilitates and administers the markets for installed capacity, energy, ancillary services, and transmission congestion contracts ("TCCs"), which are financial congestion hedging instruments. The NYISO also administers the scheduling of firm and non-firm point-to-point transmission service and Network Integration Transmission Service. Market Participants, including all generators, may submit bids on a day-ahead and real-time basis for generation, and bilateral transactions. Load may submit bids only in the Day-Ahead Market ("DAM").

The energy market provides a mechanism for all Market Participants to buy and sell energy and to bid various kinds of bilateral transactions. The NYISO market rules give no preference to traditional utilities. All suppliers, including all generators, may sell energy directly into the market at the NYISO-determined LBMP clearing price or be party to a bilateral contract selling directly to purchasers.[2] Generators that bid into the NYISO-administered markets have access to a number of tools that allow them to precisely express their economic preferences. They may specify minimum and maximum run times and effectively submit a block of hours on an all or nothing basis, which makes them eligible for production cost guarantee ("BPCG") payments that make up for any difference between the market price during that block of hours and their block bid price.

Similarly, traditional utilities, independent Load Serving Entities ("LSEs"), and others may purchase energy at the LBMP clearing price by submitting bids and/or they may be party to a bilateral contract purchasing directly from a supplier. Parties to a bilateral contract may elect to bid a transaction as a firm point-to-point transaction, in which case they are agreeing to pay congestion charges to secure delivery of the requested energy. Alternatively, they can enter a non-firm point-to-point transaction, in which case they indicate a willingness to accept the scheduled delivery of power only if there is no congestion.

The NYISO's co-optimized energy and ancillary services market uses a "two-settlement" process. The first settlement is based on the day-ahead bids and the corresponding day-ahead schedule and prices determined by the NYISO's Security Constrained Unit Commitment ("SCUC") software. The second settlement is based upon the real-time bids and the

[2] As is noted below, "negawatt" suppliers have are permitted to participate in the NYISO-administered markets to the greatest extent that is technically feasible today.

corresponding real-time commitment and dispatch determined by the NYISO's Real-Time Commitment ("RTC") and Real-Time Dispatch ("RTD") software. All Market Participants may participate in the DAM and/or the Real-Time Market ("RTM").

As a result of the DAM commitment process, a set of generators is scheduled to be available for dispatch in each hour of the next day and a set of LSEs are scheduled to buy a certain amount of load at the day-ahead price.

All NYISO Market Participants have several ways to manage their exposure to the volatility of LBMP market prices. LSEs may:

- Enter into a firm or a non-firm bilateral contract. The non-firm contract simply says that the LSE will take power through the contract, only if doing so will not cause the LSE to pay congestion charges.
- Lock in the price for all or a portion of energy in the DAM, where it is expected that the volatility should be smaller than in the RTM.
- Bid into the DAM while specifying a maximum price above which the LSE is unwilling purchase day-ahead energy.
- Buy TCCs to manage the cost of congestion.

Suppliers may:

- Provide ICAP
- Supply energy, reserve or regulation, or any mix of these (within the limits of actual plant capability).
- Offer power into the DAM, or the RTM, or provide power through a firm or a non-firm bilateral contract (subject to a conclusion of a private contract for the bilateral transaction).
- Satisfy bilateral contract obligations entirely from generation by specifying an appropriate price offer. Alternatively, a generator can supply a part from the market and a part from its generator, with each portion determined automatically by the NYISO based on the generator's price offer.

The NYISO's Day-Ahead Demand Response Program ("DADRP") provides retail customers with an opportunity to bid their load curtailment capability into the DAM in virtually

the same manner as generators. Customers submit bids by 5:00 a.m. specifying the hours and amount of load curtailment they are offering for the next day, and the price at which they are willing to curtail. Prior to November 1, 2004, the bid price had to be $50/MWh or higher; subsequent to November 1, the bid floor price has been $75/MWh.

Bids are structured like those of generation resources, so that DADRP participants may specify minimum and maximum run times and effectively submit a block of hours on an all or nothing basis, which makes them eligible for BPCGs. Load schedule in the DAM is obligated to curtail the next day. Failure to comply results in the imposition of a penalty defined by the MW curtailment shortfall times the greater of the corresponding day-ahead or real-time market price.

Question A8. What role have credit issues played in the ability of market participants to participate in wholesale markets, including forward markets?

The NYISO has a comprehensive and non-discriminatory creditworthiness program. It is designed to balance the need to prevent losses attributable to nonpayment by a NYISO customer against the risk of creating barriers to entry or unduly burdening customers in the NYISO-administered markets. In addition, the requirements were developed with the recognition that the liability for the bad debt of a customer in the NYISO-administered markets falls upon other customers. In this sense, the very customers that will be subject to the NYISO's creditworthiness requirements are also the customers for whose benefit the requirements have been designed. The NYISO's creditworthiness requirements have been approved by FERC and are subject to continued FERC oversight to ensure that this balance is maintained.

Credit requirements for each Market Participant are calculated separately for Energy, Unforced Capacity ("UCAP"), TCC, and "virtual" transactions pursuant to formulae in the NYISO's tariffs. These individual requirements are added to produce a total amount of collateral that must be provided by the MP (also known as the "operating requirement") to participate in

the NYISO-administered markets. NYISO's credit requirements can be found in Attachment W of the Open Access Transmission Tariff.
<http://www.nyiso.com/public/webdocs/documents/tariffs/oatt/att_w.pdf>

The operating requirement can be satisfied by providing one or any combination of five different forms of collateral. The five acceptable forms of collateral are as follows: (1) cash; (2) letter of credit; (3) netting of accounts receivable due to a Market Participant; (4) affiliate guaranty; and (5) surety bond. The Credit Department monitors both the Market Participant's activity in the market and the amount of collateral posted on a daily basis to assure maintenance of adequate collateral, and makes appropriate adjustments for collateral requirements.

Question A10. How can changes and trends in wholesale market prices by region be measured?

New York is divided into eleven zones whose boundaries reflect the State's electrical sub-regions. The NYISO publishes data on both the actual zonal price, which is what LBMP customers located in the zones actually pay, and "hub" prices, which are purely advisory zonal prices calculated using a different methodology. Long-term zonal prices trends in New York can therefore be directly measured. By the same token, the NYISO also publishes nodal prices at each generator bus in the State which permits all Market Participants to evaluate changes and trends.

Question A11. How should the performance of wholesale markets in serving the needs of various types of power sellers (e.g., marketer, generator, independent producer, merchant, public utility, nonpublic utility, qualified facility, renewable power producer, co-generator) be measured?

One useful way to measure the success of markets is to evaluate the quality of price signals that they produce. Efficient price signals send clear economic signals give Market Participants efficient incentives to respond in economically rational ways. Accurate price signals

encourage competitive behavior and, ultimately, investment. New York has worked to ensure proper price signals, and facilitate investments, in a number of ways:

- It has focused on improving its ability to model real world constraints so that its market software can accurately capture incremental congestion (bottleneck) costs.
- It made a number of changes to its ICAP/UCAP market design to better meet local and statewide reliability requirements. Demand curves were added to encourage future investment.
- It implemented "virtual trading," *i.e.*, it enabled the convergence of Day-Ahead and Real-Time prices and provided more accurate prices consistent with economic efficiencies.
- The NYISO's co-optimization of energy, reserves and regulation allows for lost opportunity costs to be efficiently incorporated into clearing prices.
- The NYISO's successful adoption of market power mitigation measures for load pockets prevented price manipulation which would have tainted prices and undermined their ability to send efficient economic signals.
- The NYISO reformed its pricing rules at the "proxy buses" used to model neighboring systems, making inter-regional trading more efficient and thereby producing better prices.

One measure of the NYISO's increased success in fostering efficient price signals, and well-performing markets, is the increasing convergence between DAM and RTM prices in the years since it commenced operations. The differences between DAM and RTM prices have decreased 11 percent over the last four years, due in substantial part to the introduction of virtual trading and improved modeling. In 2004, virtual load represented approximately 15 percent of actual load, representing a steady increase since its inception in 2002. Annual trading across New York's borders is 30 million MWHRs, reflecting the importance of proper pricing at the boundaries.

In addition, as the following table indicates, as the NYISO-administered markets have developed, the number of customers has increased, socialized "uplift" charges have decreased, and real-time price volatility has fallen substantially. All of this further demonstrates the continuing success of competition in New York.

Total Market Volume		$5.27B	$7.2B
DAM/RT Convergence (Average of absolute monthly difference)		60%	13.4%
Uplift	Summer	3.7%	2.9%
(% of total energy price)	Winter	3.6%	1.4%
Price Volatility	DAM	36%	27%
(Std Dev - % Average Yearly Price)	RT	73%	37%
TCC Market Volume	Bid MW	107,910 MW	662,400 MW
	Awarded MW	7,668 MW	26,248 MW
Virtual Bidding			
Authorized average daily MWH		105,500 MWH*	407,096 MWH
Offered/bid average daily MWH		21,173 MWH*	154,634 MWH
*2001			
Reserve Margins		14.8%	19.9%

** End of Year Projection*

NYISO Market Statistics	2000	2004
# Customers	112	267

B. Answers to Questions Regarding Generation Ownership

Question B1. How has ownership of electric generating plants changed over the past 10 years?

Question B2. In the past 10 years, when generations assets have been sold or transferred, how much capacity was sold or transferred to a) utility or utility affiliate), b) existing non-utility market participants; c) new market participants?

Question B3. How much existing merchant or non-utility generation assets have been sold or transferred? What were the reasons for these transactions?

There have been numerous changes in ownership of New York generating plants over the last ten years. In general, New York's traditional investor-owed utilities sold most, and in some cases all, of their generation to independent power producers starting in the 1990s as part of State utility restructuring efforts.[3] In the years since, there have been a number of sales of generation

[3] The New York Power Authority, a vertically integrated but non-investor-owned utility has not divested its generation.

from one independent power producer to another, and sales of financial interests in generation to investors. The NYISO does not keep comprehensive records of these transactions and is therefore unable to provide more specific information at this time. It is clear, however, that generation assets in New York can change hands freely.

C. Answers to Questions Regarding Generation Adequacy

Question C1. How is generation adequacy addressed in each region or system? Is there a specific enforceable requirement that load serving entities or market participants must meet? How is planning for generation adequacy conducted?

Question C8. How do the approaches and responsibilities for assuring the availability of sufficient generation capacity to meet peak load and load growth vary among regions and states that have retail choice and/or tightly organized regional markets and those that do not?

Question C11. How can competitive markets assure adequacy of generation supply? How is reserve sharing to meet state or regional generation adequacy standards accomplished in competitive markets? How can other institutions/market processes provide an effective substitute for reserve sharing?

Generation adequacy is addressed in New York through ICAP markets administered by the NYISO. The market has been designed to ensure that there is sufficient generation capacity to cover New York State's capacity requirements. Any generator, or load that has the proper equipment, that is connected to New York's transmission system, and that is capable of dependably supplying energy and/or reducing the demand in the State may be an ICAP supplier. Any entity that chooses to become an ICAP Supplier will receive capacity payments from the NYISO in exchange for a commitment to make its energy, or demand reduction capability, available to New York. All LSEs in New York, including traditional utilities and marketers, have a mandatory capacity obligation. LSEs may procure ICAP through bilateral transactions or through the NYISO-administered auctions.

Complete information on the NYISO's ICAP markets can be found at <http://www.nyiso.com/public/products/icap/manuals.jsp>. An overview is provided below. In

response to Question C.8, the NYISO's generation adequacy arrangements are clearly different from anything that could be implemented in a region without an ISO/RTO or a centralized market. In response to Question C.11, the NYISO believes that its systems demonstrate that generation adequacy can be effectively addressed through market-based arrangements.

The New York State Reliability Council ("NYSRC") sets the Installed Reserve Margin ("IRM") and the NYISO determines the New York Control Area's ("NYCA") Minimum Installed Capacity Requirement in accordance with the criteria and standards set by the NYSRC, the Northeast Power Coordinating Council ("NPCC") and the New York Public Service Commission ("PSC"). For further information on the NYSRC's role, see their website at: <http://www.nysrc.org/documents.html>.

The NYCA IRM is established pursuant to NYSRC Reliability Rules A-R1 (Statewide Installed Reserve Margin Requirements), which states:

> The NYSRC shall establish the IRM requirement for the NYCA such that the probability (or risk) of disconnecting any firm load due to resource deficiencies shall be, on average, not more than once in ten years. Compliance with this criterion shall be evaluated probabilistically, such that the loss of load expectation (LOLE) of disconnecting firm load due to resource deficiencies shall be, on average, no more than 0.1 day per year. This evaluation shall make due allowance for demand uncertainty, scheduled outages and deratings, forced outages and deratings, assistance over interconnections with neighboring control areas, NYS Transmission System transfer capability, and capacity and/or load relief from available operating procedures.

The NYISO values capacity sold and purchased in the market in a manner that considers the forced outage ratings of individual units — Unforced Capacity or "UCAP". To maintain consistency between the rating of a unit (UCAP) and the statewide Installed Capacity Requirement (ICR), the ICR must also be translated to an unforced capacity basis. In the NYCA, these translations occur twice annually prior to the start of the Summer (May-October) and Winter (November-April) capability seasons.

Additionally, New York has locational capacity requirements that are also translated to equivalent UCAP values during each capability period. The conversion to UCAP essentially translates from one index to another, and is not a reduction of actual installed resources. The NYISO employs a translation methodology that converts UCAP requirements to ICAP in a manner that assures compliance with NYSRC Rule A-R1. The conversion to UCAP provides financial incentives to decrease the forced outage rates while improving reliability.

The NYISO conducts three types of Installed Capacity auctions: the Capability Period Auction, the Monthly Auction, and the ICAP Spot Market Auction. LSEs may procure adequate Unforced Capacity from Installed Capacity Suppliers, either bilaterally or through the auctions, to meet their requirements.

Participation in the Monthly Auction and the Capability Period Auction consists of:

(i) LSEs seeking to purchase Unforced Capacity;

(ii) (ii) any other entity seeking to purchase Unforced Capacity;

(iii) (iii) qualified Installed Capacity Suppliers; and

(iv) (iv) any other entity that owns excess Unforced Capacity.

Participation in the ICAP Spot Market Auction is open to of all LSEs and any other entity that has an Unforced Capacity shortfall.

The NYISO monitors the compliance of Transmission Owners, LSEs, and Installed Capacity Suppliers with the rules and procedures set forth in the NYISO Services Tariff and in the ICAP Manual.

In May 2003, the NYISO implemented Installed Capacity ("ICAP") Demand Curves in the ICAP markets for the Summer 2003 Capability Period and thereafter. Separately-determined ICAP Demand Curves are in place for upstate New York (also referred to as the "NYCA" or

"Rest of State"), New York City ("NYC"), and Long Island ("LI"). These Demand Curves are to be adjusted periodically in accordance with the NYISO's tariffs and the "ISO Procedures" (*i.e.*, the NYISO's technical manuals.)

Prior to implementing the Demand Curves, ICAP requirements for all Load Serving Entities ("LSEs") were set equal to the forecasted NYCA peak demand plus a reserve margin (the "ICAP Requirement"). LSEs that failed to acquire this minimum ICAP Requirement were assessed a deficiency price based on a multiple of the estimated annual cost for a new gas turbine. The deficiency price also represented the maximum price a generator could receive in the ICAP auctions. Because LSE ICAP obligations were fixed at the ICAP Requirement level, any supplies of capacity in excess of the Requirement had no market value. Additionally, in system peak load conditions when supplies became scarce, these prior ICAP market rules resulted in an instantaneous transition into rapidly increasing prices along a demand curve that essentially became "vertical" at the minimum ICAP Requirement and up to the deficiency price.

Demand Curves were implemented in the ICAP markets to address the price volatility that resulted from these vertical curves through new market rules that recognized that capacity above the ICAP Requirement provided some additional reliability value to the system, increased ICAP market competitiveness, and would reduce the frequency of price spikes. The Demand Curves were also intended to stabilize and improve price signals to potential capacity investment and encourage development of more bilateral arrangements among LSEs and suppliers.

Question C2. Has new generation construction kept pace with demand growth in the state or market region? If not, why not? What are the most important factors that affect whether generation will be built?

Question C4. What generation facilities have been installed in the past five years? What was the experience in the process?

Generation construction and increased demand reduction capability in New York has kept pace with load growth in New York over the last ten years. The pace of generation construction has accelerated since the formation of the NYISO; more specific information is provided below.

The NYCA's peak load has grown from approximately 27,300 MW in 1994 on a weather adjusted basis to 31,400 MW in 2004, which totals approximately 4,100 MW. This represents a ten-year compound growth rate of approximately 1.21 percent. However, a regional analysis presents a much different picture. Load growth in West NY (Zones A through E) and Upper Hudson Valley (Zone F) or Capital has experienced negative load growth. The Lower Hudson Valley (Zones G, H and I) or LHV has experienced a growth rate in excess of 2.4 percent annually (corrected for Rockland Electric Company joining PJM) with total load growth of approximately 915 MW. NYC (Zone J) or NYC has grown at a rate of 2.6 percent annually with total load growth of approximately 2570 MW. LI (Zone K) has grown at a rate of 3.5 percent annually with total load growth of approximately 1,500 MW over the last ten years. Together, the area defined as LHV, NYC and LI or Southeast NY ("SENY") has experienced total load growth of almost 5,000 MW over the last ten years Vs a net of 4,100 MW for the NYCA.

Table 1 below identifies installed generating capability for the NYCA to the nearest 10 MW and the regions as defined above for the years 1994, 1999 and 2004. These numbers are based on summer ratings and were derived from the annual "Load and Capacity Data Report," which represents generating capability as of the end of each reporting year. The capacity data from the data report has been adjusted for capacity sold out of State, such as the NYPA hydro allotment and non-qualifying capacity such as the Indian Point gas turbines. These adjustments total approximately 360 MW for year 1994 and 400 MW for both years 1999 and 2004. Also,

the year end 2004 data includes the Waterside units in NYC and the Albany steam units which are scheduled to be retired in 2005 in conjunction with new capacity additions which are scheduled to commence commercial operations in 2005. The net impact of the retirements and the new capacity is projected to be a net increase in capacity slightly in excess of 500 MW.

Table 1 – New York Installed Generating Capability (MW)

Region	1994	1999	2004
West NY	13,660	14,480	14,430
Upper Hudson Valley	2,400	2,440	3,470
Lower Hudson Valley	5,700	5,530	5,490
New York City	8,550	7,870	8,940
Long Island	4,320	4,370	5,180
Total	34,630	34,690	37,510

While the NYCA load has increased by 4,100 MW, generating capability has increased by almost 2,900 MW, not including demand response. Also, it should be noted that almost all of the capacity additions that have been installed over the last ten years have happened since the NYISO began operations on December 1, 1999. If the summer of 2005 is included, the load growth is expected to increase by 560 MW to a total 31,960 MW but the capacity will increase by approximately 700 MW as the result of new capacity coming into service. Including demand response which is listed in the data book at 975 MW, the approximately 4,660 MW of load growth that is estimated to have occurred between 1994 and the summer of 2005 will have been offset by a combination of demand response totaling 975 MW and capacity additions totaling approximately 3,600 MW.

Beyond 2005, load growth is expected to continue at a moderate pace with growth averaging about 1.2 percent per year statewide, or 1.7 percent downstate and 0.6 percent upstate per year.

By 2015, the New York Control Area peak load is expected to increase to 35,670 MW. The New York City and Long Island zone peak loads are expected to grow to 12,648 MW and 6,112 MW, respectively. Over this period, there are currently 2,038 MW of new capacity under construction with announced retirements now totaling 1,946 MW, including 1,049 MW of retirements in New York City. The analysis assumes that all the units under construction would be completed and operational at their scheduled dates, including the New York City units, which include East River Repowering (288 MW); the New York Power Authority Project (500 MW); and the first phase (500 MW) of SCS Astoria (1,000 MW total) and that announced retirements occur as scheduled. These totals do not include any other facilities with approved Article X certification that are not under construction nor any projected plant retirements beyond those officially announced.

Approved for New York City but not under construction is the Reliant repowering (546 MW), Phase II of the SCS Astoria project (500 MW) and an Article VII permit for the PSEG Cross Hudson Project (550 MW). Article VII is the siting mechanism for transmission lines in New York State. However, the Cross Hudson project was put on hold last winter by the PSEG because of cost uncertainties. Additional in-New York City capacity or equivalent will be needed beyond the RFP to ensure resource adequacy criteria can be met beyond 2010. Also, the existing Poletti unit which currently is scheduled for retirement in February 2008 might be deferred for up to two years to meet reliability needs if certain regulatory requirements are satisfied.

The Long Island Power Authority ("LIPA") issued an RFP for additional generating and transmission resources. Three proposals were selected to meet Long Island's future needs. These projects include a 326 MW combined cycle generating plant, a 660 MW HVDC tie to PJM in

New Jersey and the construction of 100 offshore wind turbines with a nominal capacity value of roughly 150 MW. Target in-service date for these projects is 2007/2008.

Approved Article X projects outside of New York City and Long Island include PSEG Bethlehem (net 750 MW), which began operation in July 2005; Bowline 3 (750 MW), Wawayanda (500 MW),and the Empire Newsprint Project in Rensselaer County (505 MW), none of which has commenced construction.

A complete listing of existing transmission and generation facilities can be found in the NYISO's Load and Capacity Report available at: <http://www.nyiso.com/public/services/planning/planning_data_reference_documents.jsp>

Question C5. What generation facilities have been cancelled in the past five years and why?

The status of proposed generation and transmission projects, including those facilities withdrawn from the NYISO interconnection queue, can be found at: <http://www.nyiso.com/public/webdocs/services/planning/interconnection_process_and_studies/nyiso_interconnection_process/nyiso_interconnection_queue.pdf.> The list covers all proposed projects, including those that never obtained financing, necessary State permits, or land rights. It therefore should not be viewed as a list of serious projects that "failed" but as a list of possible projects that were not pursued. In addition, although the NYISO does not know why these projects were not realized it is not aware of any evidence that particular features of the NYISO markets contributed to the decision to withdraw from the list. To the contrary, the NYISO-administered markets' ability to accommodate genuine scarcity pricing and capacity payments mechanisms provide proper market signals to attract new projects to New York.

Table 2 identifies planned and scheduled retirements of existing generators in New York State.

Table 2 - Retirements

OWNER / OPERATOR	STATION	UNIT	ZONE	DATE	CAPABILITY (kW) SUMMER	WINTER	REASON FOR RETIREMENT
Scheduled Retirements with New Projects							
Consolidated Edison Company of NY, Inc.	Waterside	6,8,9	J	7/1/2005	167200	167800	Station Repowering
New York Power Authority	Poletti	1 *	J	2/1/2008	885300	885700	Station Replacement
Reliant Energy NY	Astoria	2	J	7/1/2010	175300	181300	Station Repowering
Reliant Energy NY	Astoria	3	J	9/1/2011	361000	372400	Station Repowering
PSEG Power NY	Albany	1,2,3,4 **	ROS	3/1/2005	312300	364600	Station Replacement
Scheduled Retirements							
NRG Power, Inc.	Huntley	63,64 **	ROS	11/1/2005	60600	96800	Environmental Restrictions
NRG Power, Inc.	Huntley	65,66	ROS	11/1/2006	166800	170000	Environmental Restrictions
Rochester Gas and Electric Corporation	Russell Station		ROS	12/1/2007	238000	245000	Environmental Restrictions
Planned Retirements							
Mirant Corporation	Lovett	5	ROS	6/1/2007	188500	189700	Environmental Restrictions
Mirant Corporation	Lovett	3	ROS	6/1/2008	68500	68500	Environmental Restrictions
Mirant Corporation	Lovett	4	ROS	6/1/2008	174000	175500	Environmental Restrictions
					2797500	**2917300**	

** Unit can remain in service for two years beyond scheduled retirement date, if needed to meet reliability requirements.*

*** Units have been netted out of Existing Generating Capacity - Table III-2.*

See NYISO's 2005 Load and Capacity Report <http://www.nyiso.com/public/services/planning/planning_data_reference_documents.jsp>.

C7. Are there instances in the past five years in which a new generation facility has been completed that caused prices in a previously congested area to decline?

The NYISO does have readily available data demonstrating that new generation construction has reduced prices in particular locations. Nevertheless, the NYISO-administered markets have produced price signals that have caused developers to build newer, more efficient, generation in the congested areas that most need it. The effect of these infrastructure additions has necessarily been to lower prices in congested areas, after adjusting for increases in fuel costs.

Question C9. What incentives do competitive suppliers have to maintain adequate reserve capacity?

Question C10. What incentives or responsibilities do load serving utilities have to maintain adequate reserve capacity?

Pursuant to applicable reliability rules, the NYISO calculates operating reserve requirements and administers operating reserves markets to ensure that reserves are provided at

the lower possible cost. The NYISO's operating reserve service ensures that backup generation is always ready in the event that major generation resources or transmission facilities are lost. Reserves must be available in 30 minutes or less (two-thirds of which must be available within 10 minutes) from units within the NYCA and within specific regions.

The NYISO's reserves markets are fully integrated with its energy markets and are part of the same two-settlement system. The NYISO selects operating reserve service from available, dispatchable generation in the DAM. In the RTM, reserve providers are selected as a result of a second co-optimization of energy, reserves, and regulation. Suppliers buy out of day-ahead schedules based on actual schedules and operations in real-time.

Suppliers selected to provide reserves receive full compensation for the service, including their lost opportunity costs. The NYISO market therefore gives them efficient incentives to maintain adequate reserve capacity. Customers are required to pay for these services.

D. Answers to Questions Regarding Transmission Investment and Regulation

Question D1. What are the most important factors that affect whether transmission will be built? What are ways to improve the process? What difficulties have transmission owners had in upgrading or building new transmission facilities? What are the prospects for merchant transmission?

Because the NYISO does not construct or invest in transmission facilities, its knowledge of these issues is limited. The NYISO believes, however, that its markets provide efficient price signals that developers can use to make economically rational transmission development decisions. Similarly, there is nothing in the NYISO market design that discourages transmission investments. Indeed, a number of merchant transmission projects involving New York State have been proposed and one is already in place.

Specifically, the Cross Sound Cable, a 330 MW high voltage direct current (HVDC) facility connecting the New England grid in Connecticut with the New York grid in Long Island,

is operating. The Neptune project, a 600 MW HVDC facility connecting the PJM grid in New Jersey with the New York grid in Long Island, has been licensed. Neptune was one of the successful bidders in a LIPA RFP and should be able to obtain financing on the strength of the LIPA contract. In addition to the merchant projects, a number of regulated transmission projects have been announced. They include two major new substations in New York City; new circuits from Sprainbrook to Sherman Creek; the Rochester Transmission Project and major transmission projects on Long Island. These projects are being driven by load growth and local reliability concerns to ensure energy can be delivered to end users.

Question D3. How are transmission needs of merchant generators and renewable energy projects included in regional or utility transmission planning and upgrades?

Question D4. How has the establishment of Regional Transmission Organizations (RTOs) changed transmission operations, transmission planning, and investment patterns?

Question D5. Within a region or RTO, is there a different process for transmission upgrades that are not required for reliability but would increase access to lower priced power in areas with economic congestion?

As is explained in detail below, the NYISO conducts a transparent regional planning process that is open to merchant generators and renewable energy projects on the same basis as other market participants. Distinct systems for reliability upgrades and economic upgrades are developing. The NYISO is also working with neighboring system operators to establish coordinated inter-regional planning mechanisms that should increase the efficacy of each individual region's program. Although the NYISO is not in a position to address changes in "investment patterns" associated with its planning programs, it is clear that the creation of ISOs/RTOs allows for large scale regional planning, and for greater transparency, than was possible in the past.

The NYISO has historically performed short-term planning analyses (one to three years) in compliance with NERC, NPCC and NYSRC requirements. The Commission, of course, has repeatedly stated that conducting a broad regional planning process is an essential function for ISO/RTOs.

In early 2003, the NYISO approached its Stakeholders to begin the development of a comprehensive planning process for New York. The Electric System Planning Working Group ("ESPWG") was created to work with NYISO staff to develop a comprehensive planning process. A phased approach was agreed upon: Phase I would address reliability needs and Phase II would address economic issues. The ESPWG, which brings together business and technical interests, is responsible to provide input and review of the planning process itself. It reports to the NYISO's stakeholder-run Business Issues Committee ("BIC") and Operating Committee ("OC").

The NYISO, with input from the ESPWG, has implemented a Comprehensive Reliability Planning Process (CRPP) that was approved by the Commission at the end of 2004. The CRPP provides for both market-based solutions and a regulated backstop to ensure that reliability needs will be met in a timely manner. The first Comprehensive Reliability Plan is scheduled to be issued in June 2006.

The NYISO's first annual Reliability Needs Assessment ("RNA") is now underway, with a draft report issued in September 2005. Following issuance of the RNA, a "request for solutions" will be issued seeking both market-based and regulated solutions. Market-based proposals are prepared in parallel with regulated backstop proposals. Proposed solutions are open to all resources: transmission, generation and demand response. New York State's traditional utilities are obliged to provide the regulated backstop solutions.

The NYISO will perform an evaluation of all proposed solutions to determine whether they will meet the identified Reliability Needs. The CRPP details a process for managing all aspects of the review, approval and appeal process, as well as cost allocation and cost recovery. ESPWG and the NYISO's Transmission Planning Advisory Subcommittee provide input and ongoing review as part of the CRPP. The RNA and CRP are subject to the normal NYISO governance process, except that the NYISO Board has final approval authority.

In Summer 2004, the NYISO and ESPWG immediately began discussions on Phase II: economic planning issues. Following several months of discussion, the NYISO prepared a "Strawman" for discussion in November 2004. In February 2005, the OC approved the revised NYISO Strawman for Economic Planning. The approved Strawman was submitted to FERC in a progress report filed in March 2005.

Under the approved Economic Planning Process, the NYISO will expand its information reporting to the marketplace, including reporting historic congestion costs. The NYISO will perform analyses to develop estimates of future congestion over a 10-year planning horizon, and will perform "what-if" analysis to determine the savings/costs resulting from relieving certain constraints. Market participants will utilize this information to evaluate opportunities & propose projects as they see fit. The NYISO will have the responsibility to analyze proposed economic projects to ensure that they will meet applicable reliability and interconnection requirements.

The NYISO and ISO-New England ("ISO-NE") began discussions regarding enhanced coordination of planning between the two regions in the fall of 2002. It was soon recognized that a broader initiative including other transmission operators in the Northeast would be beneficial. Accordingly, in January 2003 an inter-area Transmission Coordination Task Force was formed

including ISO-NE, the NYISO, PJM Interconnection, LLC ("PJM") and the Canadian members of the NPCC. NPCC staff also participated in these discussions.

These discussions resulted in the development of a draft protocol for the coordination of planning for the Northeast region, which was patterned after the planning coordination agreement that was then under development between PJM and the Midwest Independent System Operator (MISO). During the first half of 2004, ISO-NE, NYISO, and PJM solicited stakeholder input on the draft protocol. Stakeholders in all regions were very supportive of moving ahead with this initiative.

The ISOs incorporated the input received during their stakeholder discussions and finalized the protocol document in December 2004. The initial parties to the protocol are ISO-NE, NYISO and PJM. The Independent Electricity System Operator of Ontario, Hydro-Québec TransÉnergie, and New Brunswick Power, while not parties to the protocol, have agreed to participate on a limited basis in the data-sharing and information-exchange process and in regional planning studies for projects that may have inter-area impact to ensure better coordination in the development of the interconnected power system in the Northeast. It is intended that the activities of the parties and other participants, as defined under the protocol, would be conducted in close coordination with the Regional Reliability Councils of the northeastern United States and Canada (*i.e.*, NPCC and the Mid-Atlantic Area Council.

The initial draft *Northeast Coordinated System Plan*: 2005 ("NCSP 2005") was issued to stakeholders on April 6, 2005. This report consolidates the system assessments and plans of each of the participating control areas, highlights existing inter-regional planning activities, summarizes perceived issues and risks and identifies potential issues for future analysis.

A region-wide planning process will be implemented which includes an open stakeholder advisory group and the issuance of a region-wide coordinated plan. This region-wide planning process would be supplemental to each ISO or RTO's individual and more detailed transmission planning process.

The first meeting of the Inter-Area Planning Stakeholder Advisory Committee ("IPSAC") was held on June 17, 2005 to receive input and to initiate the process for developing the first fully coordinated NCSP for the Northeast which is expected to be issued by mid-2006. Based upon input from the June meeting, the ISOs have prepared a Scope of Work for the NCSP 2006.

E. Answers to Questions Regarding Wholesale Market Transparency and Information

Question E2. Is there sufficient timely and accurate publicly available information to assure that market participants can adequately assess the economics of proposed wholesale power transactions or assess the financial implications of self build versus competitive alternatives for generation supply?

The NYISO posts on its website all of the price information from its markets. Information posted includes, but is not limited to:

- Day-Ahead and Real-Time energy market Zonal and generator bus prices
- Ancillary services (regulation and reserve markets) Day-Ahead and Real-Time prices
- Transmission Congestion Contract (TCC) awarded quantities and prices
- Locational ICAP prices for strip, monthly and spot auctions

In addition, customer-specific information and analysis tools are available through the NYISO's Decision Support System ("DSS") data warehouse, accessible via a secure internet connection. Market Participants can use this information to make the kind of decisions referenced in the question.

Question E3. How can any information deficits be remedied to improve the utility of market information? Are there any competitive risks associated with greater transparency of prices or of other information about market participants?

The NYISO has worked with Market Participants to continuously improve the accessibility of market information on the NYISO's OASIS and through the DSS system noted above. There is much to be gained from greater transparency in market information. This transparency begins with the prices (in all markets) but then should extend to operational information, including network configuration and loading information.

At the same time, greater transparency is not always better. In competitive markets, certain kinds of information will necessarily be competitively sensitive and should not be made public. The best example is bidder-specific information, such as unit heat rates, which should be allowed to remain confidential, at a minimum, for a substantial period of time. Disclosing this kind of information while it is still sensitive chills competition by discouraging potential market participants from entering markets and can distort competition by facilitating gaming or collaboration among market participants.

F. Answer to Retail Question Regarding Demand Side Participation

Retail Markets Question D3. What mechanisms allow for the participation of load response measures – interruptible load, self-generation, demand-side management, conservation and energy efficiency measures as alternatives in wholesale electric markets and or load serving utility resource portfolios? How has the performance of these measures been monitored?

The NYISO offers two demand response programs to support reliability: the Emergency Demand Response Program (EDRP) and the Installed Capacity-Special Case Resource Program (ICAP-SCR). Additional information on the NYISO's demand response programs can be found at: http://www.nyiso.com/public/products/demand_response/index.jsp

The EDRP provides resources with an opportunity to earn the greater of $500/MWh or the prevailing LBMP for curtailments provided when the NYISO calls from them. There are no

consequences for enrolled participants that fail to curtail. EDRP curtailments, until this year, were called in conjunction with the dispatch of ICAP-SCR curtailments.

The ICAP-SCR program allows customers that can meet certification requirements to offer unforced capacity (UCAP) to LSEs and to the six-month strip and the monthly auctions that the NYISO operates. Resources are obligated to curtail when called upon to do so with two or more hour's notice, provided that they were notified the day ahead of the possibility of such a call. In addition, ICAP-SCR resources may be subject to testing to verify that they can fulfill their curtailment requirement. Failure to curtail could result in penalties administered under the ICAP program that can exceed the amount the participant received initially as an ICAP payment. Curtailments are called when reserve shortages are anticipated.

As of October 2005, the reliability programs had a total of 2,711 participants enrolled providing a total of 1,718 MW of curtailable load. There were 917 resources in EDRP and 1794 participants in ICAP-SCR. Breaking down program participation by NYISO Zone, Zones J and K, New York City and Long Island, respectively, have the majority (70 percent) of participants in the EDRP program and 47 percent of the total MW enrolled. For the ICAP-SCR program, participants in Zones J and K constitute an even greater percentage (79 percent) of total statewide participants, but account for only 39 percent of the total enrolled MW. The Western superzone, made up of zones A through E, is characterized by a greater load per participant ration. Only 20 percent of participants in the EDRP are active in that region but they account for 38 percent of total enrolled MW. Similarly, 18% of the participants in ICAP-SCR are in the west but they provide 53 percent of total program MW.

IV. CONCLUSION

The NYISO hopes that its answers will assist the Task Force in its inquiry and stands ready to provide additional information on request. The NYISO believes that its answers show that wholesale market competition in the process of bringing lower costs, improved reliability, and infrastructure development benefits to New York State. The NYISO therefore respectfully submits that there is no need for the Task Force to recommend changes to the structures that are already in place in New York at this time.

Respectfully submitted,

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