Joint Board of Directors and Management Committee Meeting The Otesaga Hotel Cooperstown, NY

June 9, 2008

Compiled Market Participant Comments

Enclosed are compiled responses to the Board's questions on the following agenda items for the June 9 Joint Board of Directors and Management Committee meeting:

- Forward Capacity Markets
- Inter-Regional Planning
- Integration of Wind Resources into the NYISO Markets

Comments provided by:

Alliance for Clean Energy NY

Carol Murphy, Executive Director

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Multiple Intervenors

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Long Island Power Authority Kevin Jones, Director of Power Market Policy

<u>New York Power Authority</u> Bill Palazzo, Director Market Issues Group

Consolidated Edison

Joseph Oates, Vice President Energy Management

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Tim Brennan, Director of Wholesale Markets Bart Franey, Director of Federal Regulations

Comments to be provided by:

Public Service Electric & Gas Co.

Ralph A. LaRossa, President

Alliance for Clean Energy New York (ACE NY)

Regarding Questions for the Joint Meeting of the NYISO Board of Directors and Management Committee:

Brief Comments on Integration of Wind Resources into the NYISO Markets and A Forward Capacity Market

The Alliance for Clean Energy New York (ACE NY) is a non-profit organization whose mission is to promote the use of clean, renewable electricity technologies and energy efficiency in New York State in order to increase energy diversity and security, boost economic development, improve public health, and reduce air pollution. Members of the Alliance for Clean Energy New York (ACE NY) include non-profit environmental, public health and consumer advocacy organizations, educational institutions, and private companies that produce or sell renewable energy or energy efficiency services in New York.

ACE NY supports the NYISO's efforts to reliably integrate wind energy into the New York electricity markets, including the NYISO's efforts to produce an updated wind integration study. In addition, the discussion questions posed for today are all critically important ones. However, ACE NY feels quite strongly that the answers to these questions will require extensive discussion among market participants and outside experts and should be conducted – beginning as soon as possible – within the appropriate NYISO working groups and also should be referred to the NYISO's Environmental Advisory Council for input. In addition, while discussions could begin earlier, Question 2 about appropriate operating and market rules most certainly cannot be answered prior to completion of the wind integration study, whose outcome should not be prejudged.

The wording of Question 3 on the funding for transmission upgrades is fundamentally flawed. While we believe investments in transmission are necessary and vital to ensuring that the State can take advantage of its renewable resources, transmission upgrades or expansions do not solely benefit renewable energy generators, and new renewable energy generators should not bear the total cost of transmission investments. A stronger, more resilient, more reliable grid benefits consumers as well as other market participants. RPS funding most certainly should not be used to pay for transmission projects – and would not be sufficient for that purpose – especially given it is needed for its initial purpose of providing incentives to the development of renewable generation investments. Paying for transmission is a complicated topic that needs open discussion at both the NYISO as well as in State energy planning discussions. The concept of socializing the costs of transmission should be one of the concepts discussed.

Finally, we would like to offer a brief comment on the questions concerning establishment of a Forward Capacity Market. ACE NY believes there is merit to discussing the implementation of a FCM although observing the ISOs that are further along in this process may provide useful insights prior to the NYISO's adoption of this new market mechanism. In addition, ACE NY believes quite strongly that demand response and efficiency need to be incorporated into any Forward Capacity Market adopted by the NYISO.

May 30, 2008

NYISO Board of Directors New York Independent System Operator 10 Krey Boulevard Rensselaer, NY 12144

ConsumerPowerline, Inc. ("CPLN") hereby submits the following written comments regarding Forward Capacity Markets for the NYISO Board as indicated in the e-mail distribution that was sent to the market place on May 23, 2008, "2008 NYISO Joint Board of Directors-Management Committee".

Introduction

CPLN is a full service strategic energy asset management firm and a leading provider of demand response solutions in the United States, with more than 1500 MW's under management. We currently operate in North America's largest energy markets including New York, California, New England, Mid-Atlantic, Texas and Ontario. CPLN is one of the leading demand response providers in North America.

CPLN is a recognized leader in structured free wholesale markets, providing both economic and reliability resources to wholesale markets. CPLN's current portfolio of customers includes a wide range of resources, including large industrial loads, institutional customers, and commercial and residential consumers.

Forward Capacity Market

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What do you consider the most important considerations in the design of a Forward Capacity Market?

CPLN believes any Forward Capacity auction design must have clear rules that include third party demand response providers, allowing third party providers the same opportunities that are currently present in the Installed Capacity Market. Areas that seek to limit third party aggregators, or Curtailment Service Providers ("CSP's") could easily cause barriers to entry, or cause attrition within the demand response sector. It is equally important that any Forward Capacity market design take into consideration the current market rules, such as credit requirements, customer baselines, notification windows, and number of callable hours.

New York State's demand response programs have grown steadily since their inception in 2001. One reason for New York's steady growth can be found in clear rules, thereby providing certainty to market participants. Deviations from the current rules would only cause customer confusion and program uncertainty.

A Forward Capacity market must take into consideration a transition period payment, or a floor price for capacity, during the move from the current market into a Forward market. It is equally important to give value not only to distributed generation and load curtailment but to energy efficiency projects as well. Other areas that should be considered in the design of a Forward Capacity Market include the allowance of bi-lateral contracts and the frequency of reconfigurations.

Should a NYISO Forward Capacity Market be voluntary or mandatory, or a hybrid?

CPLN supports the NYISO further exploring a Hybrid Forward Capacity Market. As stated below (under pro's and con's) both PJM and ISO-NE's Forward Capacity auctions leave

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little flexibility for CSP's to add new resources in a timely manner. CSP's have the ability to aggregate load quickly bringing resources to market within a short period. Forward Capacity Markets must allow the CSP (or end use customer) the ability to enroll in the program on a monthly basis, and allow for monthly commitment level changes as end use customers business needs change.

One way to eliminate this barrier to entry for demand response customers could be through the development of a Hybrid Forward Capacity Market where a percentage of the forecast system peak load is purchased through a Forward Auction and the balance of the requirement is purchased in a monthly Spot Auction, allowing the demand curve to remain in place.

a. What are the advantages to the format you are supporting?

The advantages for demand response can be found in flexibility and timing. A Hybrid Forward Capacity Market will allow CSP's and their customers the ability to enter and/or change monthly committed levels based on business needs, and at the same time provide long-term price signals for new investment.

What does "mandatory" mean in the context of a Forward Capacity Market?

Mandatory would mean that loads, generation, and demand response or CSP's, would be obligated to purchase or sell a percentage of their capacity into a mandatory Forward Capacity Market.



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a. Is it a financial obligation?

The Mandatory sale or purchase would be a financial obligation for both the seller and buyer of the capacity.

b. What mechanisms need to be in place to track the progress of new resources clearing in the forward market?

Much like the ISO-NE has in place in their Forward Capacity Market, milestones could be used to track the progress of new resources that clear in a Forward Capacity Market.

c. What is the rationale for procuring resources based on a NYISO forecast?

In a Forward Capacity Market, procuring capacity resources based on the NYISO forecast provides a level of a reliability, ensuring that enough resources will be available in realtime to meet the system peak in future years. However, procuring resources based on forward looking forecasts will play a critical role in how and when reconfiguration auctions are conducted.

Are there any unique considerations for demand response participation in a Forward Capacity Market?

CPLN believes there are two critical areas that must be addressed when looking at demand response participation within a Forward Capacity Market. The first is flexibility for, both new and existing demand response resources. One reason the NYISO Special Case Resource ("SCR") program has been successful is the ability of CSP's to enroll customers into the program

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in as little time as one month, and the ability to change the customers' commitment level from month to month as the customers' business needs and conditions change. The ability to enroll quickly and change commitment levels provides the CSP and customer with flexibility, thereby enhancing the program. Unlike generation, demand response resources can be marketed and setup quickly, allowing customers to be enrolled and ready to response with a few short months.

The second area that must be carefully considered when looking at a Forward Capacity Market is synergies with existing SCR rules. It is important to understand that changes to market rules potentially may cause disruption for both the CSP and end-use customers. When looking at the NYISO's SCR program over the last seven years, only slight modifications have been made to market rules that govern demand response. This consistency is one of the underlying reasons for the history of growth within the SCR program.

Should a NYISO Forward Capacity Market require Loads to purchase capacity beyond that required to meet reliability needs?

If the NYISO seeks to implement a Hybrid Forward Capacity Market and continues to utilize the current monthly Spot Market auction, then loads should continue to purchase capacity beyond their minimum requirement.

Should the implementation of a Forward Capacity Market in NY include the retention or elimination of the Demand Curve?

CPLN believes the current Demand Curve plays a critical role in setting and establishing market signals for capacity. If a Hybrid Forward Capacity Market is implemented, retaining the



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demand curve for a monthly Spot market auction would provide the market with clear short-term signals.

Is a transition period needed?

When looking at the ISO-NE Forward Capacity Market, a critical component in development of the Forward Market was the implementation of a transition payment. CPLN believes that any Forward Capacity Market design must encompass transition payments, thereby providing adequate price signals during the transition from one market design to another.

a. If so, how long should it be?

When developing the Forward Capacity market, ISO-NE established a three year

transition payment. The transition payment should be determined by the period of time the

NYISO and stakeholders believe it will take to transition from the current market design to a

Forward Capacity market design.

What are the pros and cons of the current ISO-NE and PJM Forward Capacity Market designs?

ISO-NE Pros: ISO-NE allows for energy efficiency, distributed generation, and load management, all important elements for demand response. ISO-NE established a transition payment period, along with a floor price, providing adequate price signals to the market. Market rules are reasonably clear and training is provided. The financial assurance is reasonable and measurement is found in milestones for new resources.

ISO-NE Cons: ISO-NE Forward Capacity Market does not provide enough flexibility for adding resources after an auction has been closed. In addition, the qualification process is complex.

PJM Pros: Demand response participates on a mostly equal footing with generation. The RPM auction allows planned demand resources to participate, which is important for bridging the gap between the short time-frame required to implement most DR projects and the several year forward commitment. There is flexibility to enroll customers into either the ILR or DR. ILR can be registered a few months before the delivery period, and



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DR must be bid in several years in advance. PJM has multiple options for performance verification, such as Firm Service Load, Direct Load Control, or Guaranteed Load Drop.

PJM Cons: PJM does not allow for most energy efficiency as ISO-NE does. There are no floor prices for capacity, and financial assurance is excessive. Current rules are unclear with additional training needed for market participants. Prices in the Incremental Auctions are erratic. Inconsistent performance penalties create excessive risk in some regions, inhibiting bids of planned capacity.

The long (3 year) time horizon of the Base Residual Auction, combined with the lack of participants in the Incremental Auctions and large financial assurance requirements force demand response providers to bid very conservatively, slowing growth of DR in PJM.

a. Would you advocate that the NYISO adopt either model?

CPLN would not advocate for adoption of either the ISO-NE or PJM model but would

look for the NYISO to seek a Hybrid Forward Capacity Auction approach.

Conclusion

In conclusion, CPLN would like to thank the NYISO and the NYISO Board of Directors

for allowing us the opportunity to comment on what we believe are important issues for DSM programs in development of a Forward Capacity Market in New York. CPLN believes there is substantial room for growth in New York State's DSM programs and markets.

Respectfully submitted,

Maine Remark

Marie Pieniazek Senior Director Market & Program Development, Northeast ConsumerPowerline, Inc.



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BEFORE THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC. BOARD OF DIRECTORS

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COMMENTS OF MULTIPLE INTERVENORS ON FORWARD CAPACITY MARKET ISSUES

Dated: June 3, 2008

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PRELIMINARY STATEMENT

Multiple Intervenors hereby submits its Comments to the New York Independent System Operator, Inc. ("NYISO") Board of Directors ("Board") on issues pertaining to the possible implementation of a forward capacity market ("FCM"). Multiple Intervenors is an unincorporated association of over 50 large industrial, commercial and institutional energy consumers with manufacturing and other facilities located throughout New York State. Multiple Intervenors, through five of its members, participates actively in the NYISO's committees and selected working groups.

As detailed herein, Multiple Intervenors does not support the implementation of an FCM in New York at this time. Initially, there has been no demonstrated need to implement a radical restructuring of the NYISO's existing installed capacity ("ICAP") markets. Even if, <u>arguendo</u>, the Board determines that such a need exists, Multiple Intervenors is not able to advocate aggressively for or against implementation of a specific FCM without additional information as to its design – the "devil is in the details" with respect to possible FCMs.

Inasmuch as variations of an FCM were implemented recently by PJM Interconnection ("PJM") and ISO New England, Inc. ("ISO-NE"), the NYISO should refrain from pursuing an FCM for New York until, at the earliest, those existing FCMs have been evaluated comprehensively and findings are made that substituting an FCM for the existing ICAP market structure would produce substantial benefits. Finally, the NYISO also should be aware that the development of an FCM, if undertaken, would be: (a) controversial and very contentious; and (b) extremely resource-intensive, likely resulting in postponements to the completion of other NYISO priorities.

Multiple Intervenors' Comments on FCM issues are organized into two sections. In Point I, Multiple Intervenors presents its general positions with respect to FCMs. In Point II, Multiple Intervenors presents its preliminary responses to selected questions on FCMs posed by the NYISO Board in a May 23, 2008 transmission concerning the upcoming Joint Board/Management Committee meeting, scheduled for June 9, 2008 in Cooperstown, New York. Consistent with instructions by NYISO Staff, these Comments purposefully are succinct. Multiple Intervenors anticipates elaborating on its positions at the June 9th meeting.

ARGUMENT

<u>POINT I</u>

MULTIPLE INTERVENORS' GENERAL POSITIONS WITH RESPECT TO FCMs

Multiple Intervenors has numerous concerns regarding the NYISO's possible implementation of an FCM in New York. Those concerns are summarized briefly below.

A. The Primary Question Regarding the Possible Implementation of an FCM Should Be "Whether," Not "When"

In soliciting these Comments, the NYISO Board posed 11 questions (20 if multi-part questions are included) to stakeholders regarding FCM issues. Initially, the questions posed appear to presume that an FCM of some design will be implemented by the NYISO. If the Board consciously is making such a presumption, then Multiple Intervenors respectfully suggests that it has placed the cart before the horse. The initial – and primary –

question that should be posed with respect to an FCM is whether – not when – an FCM even should be implemented. To Multiple Intervenors' knowledge, the NYISO currently is under no legal obligation to incorporate an FCM into its existing market structure, nor have stakeholders voted to implement a specific FCM. Furthermore, as demonstrated below, there are significant, unanswered questions about the value of an FCM.

B. No Demonstration Has Been Made That the NYISO Needs to Implement a Radical Restructuring of its ICAP Markets

In 2003, at the behest of certain stakeholders (other than Multiple Intervenors), the NYISO implemented a major restructuring of its ICAP markets, replacing markets in which prices were determined based on offers to sell and buy ICAP with markets in which prices are determined in accordance with administratively-determined demand curves. The demand curves are reset every three years. The most recent reset process was concluded earlier this year (and will govern the demand curves in effect through the 2010/2011 capability year). To date, no demonstration has been made that the NYISO needs to implement yet another radical restructuring of its ICAP markets.

As the Board is aware, the NYISO conducts an annual reliability planning process. The 2008 Comprehensive Reliability Plan ("CRP"), still in the process of being finalized, will indicate that market-based solutions advanced in response to identified reliability needs exceed minimum requirements and, therefore, no regulatory backstop solutions are required at this time or for the foreseeable future. It also should be noted that in many regions of the State, there already exists surplus generation capacity.

In a memorandum to NYISO Staff dated May 30, 2008, Dr. David Patton, the NYISO's Independent Market Advisor, concluded (at pages 2 and 4) that market-based

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solutions have been proposed that, if constructed, should solve all reliability needs identified through 2017. Given this conclusion, there is no pressing need for the NYISO to implement an FCM.

C. The NYISO Has Yet to Perform Any Comprehensive Evaluation of the FCMs Implemented Recently by PJM and ISO-NE

PJM and ISO-NE recently implemented different versions of an FCM. In both cases, ICAP prices increased above previously-existing levels. In PJM, the increases were enormous, at great expense to consumers. Importantly, the NYISO has yet to perform any comprehensive evaluation of the FCMs implemented by PJM and ISO-NE. Absent such an evaluation, any decision as to whether the NYISO should adopt an FCM would be premature. The NYISO should not rush to implement an FCM. Rather, the NYISO should take advantage of the opportunity to evaluate the impacts of the FCMs implemented by PJM and ISO-NE before determining whether to undertake another redesign of its ICAP market structure.

D. The NYISO Should Be Very Wary of Proposed Changes to its Market Design That Would Increase Electricity Prices to Consumers

The Board should be aware that electricity prices are extremely high in New York. In 2007, the average electricity price for all sectors in the United States was 8.91 cents per kWh.¹ The comparable electric price for New York in 2007 was 15.04 cents per kWh, approximately 69 percent higher than the national average.² Last year, only Connecticut and

¹ Energy Information Association, Average Retail Price of Electricity to Ultimate Consumers by End-Use Sector, by State (report released March 17, 2008).

² <u>Id.</u>

Hawaii had a higher average electricity price than New York.³ In fact, while New York's average electricity price exceeded 15 cents per kWh in 2007, 36 states had comparable average electricity prices under 10 cents per kWh, and 23 states had average electricity prices under 7.5 cents per kWh (i.e., less than half that of New York).⁴

The Board should be very wary of proposed changes to its existing market design that would increase electricity prices paid by New York consumers. Energy prices play a significant role in decisions to site or relocate business in or away from New York, particularly for manufacturing companies. New York's high electricity prices place the State at a significant competitive disadvantage in terms of economic development efforts. Additionally, consumers are questioning, with increasing frequency and urgency, the purported benefits of organized electricity markets. Thus, in evaluating any proposed changes to the existing ICAP market structure, the Board must ensure that customers are protected against artificial and/or unnecessary price increases.

E. Adoption of an FCM Would Be Extremely Time-Consuming, Controversial and Contentious

Before deciding to adopt an FCM, the Board should recognize that such a decision would be extremely time-consuming, controversial and contentious. The development of an FCM acceptable to all or most stakeholders would require an enormous amount of work. In PJM and ISO-NE, development of materially-different FCMs took years of work, and engendered substantial litigation.

³ <u>Id.</u>

⁴ <u>Id.</u>

Thus, before heading down the path of attempting to develop an FCM for New York, the Board needs to consider whether the purported and hypothetical benefits outweigh the costs, including the diversion of limited NYISO and stakeholder resources. Multiple Intervenors is very concerned that an FCM only would make matters worse for consumers, cause substantial controversy and future litigation, and distract the NYISO and stakeholders, thereby delaying the implementation of more pressing, broadly-supported market improvements.

POINT II

MULTIPLEINTERVENORS'PRELIMINARYRESPONSES TO SELECTED QUESTIONS ON FCMs

For the reasons detailed in Point I above, Multiple Intervenors asserts that the NYISO should focus on whether – not when – an FCM should be implemented in New York. At a minimum, any critical decision regarding the possible implementation of an FCM should await a comprehensive evaluation of the FCMs adopted recently by PJM and ISO-NE. Nonetheless, in an effort to provide guidance to the Board, Multiple Intervenors hereby provides its preliminary responses to selected questions on FCMs posed by the NYISO.

1. What do you consider the most important considerations in the design of a Forward Capacity Market?

If, <u>arguendo</u>, an FCM is adopted for New York, it should be designed in a manner that, among other things: (a) ensures customers are not exposed to unnecessary increases in ICAP prices; (b) requires mandatory participation; (c) eliminates the need for continued reliance on administratively-determined demand curves; (d) allows demand

response resources to participate on a level playing field with supply-side resources; (e) prevents physical or economic withholding; and (f) employs comprehensive mitigation measures, including the imposition of penalties, to protect against exercises of market power.

2. Should a NYISO Forward Capacity Market be voluntary or mandatory, or a hybrid?

If, <u>arguendo</u>, an FCM is adopted for New York, it should be a mandatory market. Voluntary markets rely on financial hedges that likely would not help to attract material investment in new capacity resources, nor would they promote resource adequacy.

6. Should a NYISO Forward Capacity Market require Loads to purchase capacity beyond that required to meet reliability needs?

If, <u>arguendo</u>, an FCM is adopted for New York, loads should not be required to purchase capacity beyond that required to meet reliability needs. In what other markets are buyers forced to purchase more of a commodity than they want or need? Moreover, there is increased uncertainty forecasting reliability needs multiple years into the future. Consequently, requiring loads to purchase surplus capacity would increase risks and costs to consumers.

7. Should the implementation of a Forward Capacity Market in NY include the retention or elimination of the Demand Curve?

If, <u>arguendo</u>, an FCM is adopted for New York, it should include the elimination of the demand curve. The demand curve has: (a) led to increases in ICAP prices in New York; (b) is set administratively, which is inconsistent with competitive markets; (c) is very resource-intensive and highly controversial; (d) has caused customers in the ROS

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region to pay artificially-high ICAP prices due to economic withholding in the In-City market; and (e) should not be necessary if capacity is being purchased years into the future.

8. Is a transition period needed? If so, how long should it be?

If, <u>arguendo</u>, an FCM is adopted for New York, it only should be implemented after an extended (<u>i.e.</u>, multi-year) transition period. The NYISO completed its triennial demand curve reset process recently. As a result of that process, the demand curves for New York's ICAP markets have been determined through the 2010/2011 capability year. Thus, there is no urgent need to transform the existing ICAP market structure.

Prior to implementing an FCM, the NYISO should evaluate comprehensively the FCMs in effect in PJM and ISO-NE. Additionally, any transition to an FCM must proceed in tandem with the New York State Reliability Council, LLC ("NYSRC"), which is responsible for establishing the statewide Installed Reserve Margin ("IRM"). Currently, the NYSRC sets the IRM for a one-year period. A tremendous amount of work would need to be accomplished – by the NYSRC as well as the NYISO (which performs certain studies for the NYSRC) – before the NYSRC would be in position to set one or more IRMs for a multiyear period.

10. What are the pros and cons of the current ISO-NE and PJM Forward Capacity Market designs?

In many respects, the FCMs implemented by PJM and ISO-NE are too new to be evaluated fairly. To Multiple Intervenors' knowledge, the NYISO has yet to conduct any evaluation of those FCMs. Multiple Intervenors, however, is aware of the high ICAP prices produced by the FCMs in PJM and ISO-NE and is extremely concerned with both market structures. Those FCMs have led to substantial ICAP price increases, and are producing

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prices well in excess of recent ROS prices. The FCM structure adopted by PJM, in particular, has been criticized heavily by consumer interests and is viewed by many as a colossal failure.

CONCLUSION

For the foregoing reasons, Multiple Intervenors does not support the implementation of an FCM in New York at this time. There has been no demonstration that the NYISO needs to radically restructure its existing ICAP markets.

Dated: June 3, 2008 Albany, New York

Respectfully submitted,

Michael B. Mager

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2008 Joint Board of Directors & Management Committee Meeting Discussion Questions Forward Capacity Market

- 1. What do you consider the most important considerations in the design of a Forward Capacity Market?
 - Implementation of a forward capacity market is essential to: (i) provide consistency with the NYISO's CRPP; and (ii) provide strong market signals for investment as there is limited capital available to invest in the supply of new generation and NY needs to be able to effectively compete for those investment dollars. Thus, design and implementation should proceed as expeditiously as possible.
 - In determining the capacity market structure that can best serve the NYISO market it is important to consider both the lead time for developing new capacity and the timeline that the CRPP will use to trigger regulated reliability projects outside the market. Implementing a forward capacity market puts the market on the same timeline as developers need for committing to new capacity, adds additional resources to the capacity supply queue and harmonizes our markets with the CRPP reliability decisions.
 - In light of the forward mechanisms currently in place in the adjoining regions, failure to implement an FCM expeditiously will have several consequences. First, New York is likely to become the dumping ground for unsold forward capacity, which will create artificial reductions in prices and the erroneous signal that new supply is not needed in New York. This will lead to the second consequence. Over time, New York will become even more reliant on external resources to meet its capacity needs. This is particularly problematic given that the NYISO's 2008 Operating Study demonstrates that New York no longer has sufficient facilities within its borders to meet its peak load plus reserve margin levels. If, as expected, the installed reserve margin ("IRM") increases over time, this deficit will grow even wider. Third, it will create the situation where investment will go elsewhere to achieve price certainty.
 - As much of the existing market design as possible should be retained.
 - o Demand Curve Structure
 - o EFORd measurements,
 - o UCAP purchases and Sales
 - o Locational requirements
 - o Market Power Mitigation
- 2. Should a NYISO Forward Capacity Market be voluntary or mandatory, or a hybrid?
 - *IPPNY strongly supports a mandatory FCM structure.*

- a. What are the advantages to the format you are supporting?
- Adopting a mandatory structure will allow developers to evaluate New York's markets on comparable terms with the adjoining regions, thus allowing New York to effectively compete for limited investment dollars for the construction of new infrastructure.
- Adopting a mandatory FCD will limit seams between the NYISO and its adjoining regions thereby preventing New York from becoming a short term, last call market for capacity that is not already obligated to the neighboring forward markets.
- Adopting a mandatory FCD construct, will put New York's capacity market on a consistent basis with the lead time required address reliability needs identified in the CRPP. This will reduce the potential that New York has to rely upon regulated reliability solutions to meet CRPP identified reliability needs. Implementing a forward capacity market will also eliminate the uncertainty associated with future resource availability from SCRs and capacity imports that could result in the CRPP triggering unneeded regulated reliability solutions..

3. What does "mandatory" mean in the context of a Forward Capacity Market?

- a. Is it a financial obligation?
 - Given that the primary focus of a forward market is to ensure that sufficient capacity will be available to meet reliability criteria going forward, the obligation is more appropriately physical. Loads will be obligated to pay for capacity that clears the auction, and suppliers will be obligated to provide the capacity for which they have been awarded a forward contract. It could effectively be a financial obligation, just like the DAM energy market is, if the penalties for failing to provide are strong enough and the credit requirements will provide sufficient protection to the market.
- b. What mechanisms need to be in place to track the progress of new resources clearing in the forward market?

There are milestones, etc defined in the CRPP that could be used as a starting point to develop rules for tracking progress of resources clearing the market to ensure that they will be available when contractually obligated to be available.

- c. What is the rationale for procuring resources based on a NYISO forecast?
 - The NYISO forecast is already used for determining whether we need to trigger reliability backstop solutions as part of the CRPP process.

- The load forecast produced by the NYISO will be the best, unbiased estimate available to be used for these purposes as well. Forecasts by loads or suppliers would introduce a bias that would result in inaccuracies. To complement the NYISO forecast, it will be important for the NYISO to assist the New York State Reliability Council ("NYSRC") in adopting and implementing a forward IRM approach.
- 4. Are there any unique considerations for demand response participation in a Forward Capacity Market?
 - To the extent that demand response providers are awarded a capacity contract in the forward market, they should be obligated to adhere to all requirements placed on generation suppliers in terms of guaranteeing the availability of the capacity product in the time frame required by the auction. By adopting a Demand Curve approach in both the forward and incremental auctions, demand response providers will have the opportunity to choose the market in which they would prefer to participate.
- 5. What are the benefits of, and the obstacles to, including Virtual Trading in a Forward Capacity Market?
 - IPPNY has no position on inclusion of virtual trading in the FCM, except to say that this feature is not available in New England or PJM, and would have to be designed carefully to insure that reliability is not impacted.
 - If virtual trading were included in the FCM then comparable (sufficient) penalties for failure to cover an obligation and sufficient credit requirements to assure the reliability function of the market is not undermined also must be adopted.
- 6. Should a NYISO Forward Capacity Market require Loads to purchase capacity beyond that required to meet reliability needs?
 - IPPNY believes that the demand curve construct should be included in all forward and incremental auctions, which requires that all capacity that clears the market should be purchased.
- 7. Should the implementation of a Forward Capacity Market in NY include the retention or elimination of the Demand Curve?
 - The demand curve construct should be included in all forward and reconfiguration auctions that are conducted as part of the FCM.
 - The continuation of the demand curve is the best protection against the market oscillating between very high prices when it needs capacity and collapsing to very low prices when the market is slightly long.

a. Is it an "either-or" proposition?

• IPPNY does not believe it is possible to design a market with a different auction format for the initial auction, and include the demand curves at some point during the reconfiguration auction process. The only way this would work is if the suppliers in the initial auction were allowed to bid their expected value in the residual auctions. It would be very hard to allow this flexibility and also to require loads to purchase their minimum requirements because without introducing market power concerns. IPPNY believes that an approach that includes the demand curves at all levels is far superior as it will prevent the problems that could arise with a vertical demand curve type auction.

8. Is a transition period needed?

• Given that there will be a period of time between the first annual auction and delivery of the capacity that clears that auction, it will be necessary to provide for a transition to get from the current monthly construct to the proposed FCM.

a. If so, how long should it be?

• Assuming the FCM secures resources four years going forward as IPPNY has previously proposed, a four year transition period is required.

9. How is the success of a Forward Capacity Market to be determined?

- The success or failure of the market depends on a number of factors
 - Is the clearing price adequate to incentivize new investment when it is needed?
 - Is new capacity being proposed in the right locations to ensure reliability?
 - Is new capacity being constructed in a timely fashion, and available to ensure reliability?
 - Has the market avoided the need for funding backstop solutions?

a. Should it have a finite term?

- To the extent that this question is soliciting feedback on the general structure of the market IPPNY believes the appropriate term for a forward market would be an annual auction, looking four years out, conducted in the spring of each year. As the year of implementation approaches, there would be a series of reconfiguration auctions allowing parties to modify their positions as the need arises.
- To the extent that this question is soliciting feedback on adopting a "sunset" provision as part of rules, IPPNY believes that such an approach is ill-conceived. The NYISO has governance rules in place that set forth the process to be used to make tariff changes under FPA Sections 205 and 206.

10. What are the pros and cons of the current ISO-NE and PJM Forward Capacity Market designs?

 By virtue of the three-year forward, one-year product timeframe, both the New England and PJM designs are superior in sending more stable, longer-term price signals than is currently experienced with the existing NYISO short-term construct. While these two forward markets are structurally different, the early results from both auctions have been encouraging in succeeding to attract additional supply from both generation and demand response. For example, in New England, more than 1,813 MW of new supply- and demand-side resources were selected as part of the 2010-2011 auction, the first of the FCM auctions. In addition, over 15,800 MW of new resources have expressed interest in participating in the second FCM auction (2011-2012), scheduled for December 2008, including over 14,000 MW of supply-side resources from traditional generation resources, and over 1,800 MW of demand-side resources. Likewise, in PJM, the RPM notably has attracted new resources including, in the past Base Residual Auction, 2,333 MW of new generation and 662 MW of new DSM.

- While it is early to render definitive judgment on the performance of either forward construct, the results noted above suggest that both FCM and RPM are having the intended effect of encouraging the development of new supply and demand response through the provision of enhanced, longer term, forward price signals and an opportunity to recover costs.
- a. Would you advocate that the NYISO adopt either model?
 - While the "lessons learned" from each region should be taken into consideration, IPPNY does not support the wholesale adoption of either model. New York has unique circumstances including locational considerations and its own planning process. Thus, a design should be constructed that is specific to, and addresses, New York's needs.
- 11. What form of market mitigation would be appropriate to assure competitive outcomes in a Forward Capacity Market considerate of when new generation resources are needed to clear the market?
 - a. Should there be special mitigation measures for NYC?
 - To ensure the continued development of competitive markets, balanced mitigation must be applied to both the buy side and supply side of the market. Guidance should be taken from the order issued by the Federal Energy Regulatory Commission in FERC Docket No. EL07-39-000.

2008 Joint Board of Directors & Management Committee Meeting Discussion Questions Interregional Coordination: Markets & Planning

- 1. How should we approach the establishment of broader regional markets with our neighboring ISO/RTOs?
 - A limited list of issues should be developed together with a schedule for resolving each issue complete with milestones. With respect to the intra hour bidding and scheduling project discussed below, there has previously been extensive discussion and Market Participant input concerning this project. Thus, work in this area should not start from "Square 1" but instead should build from the extensive input received to date.
- 2. What specific inter-regional improvements should be considered?
 - IPPNY believes that the best approach to enhancing the interaction between the NYISO and neighboring markets is to develop mechanisms to allow intra hour bidding and scheduling in order to allow market participants to take advantage of changing conditions and further mitigate the problem of apparent uneconomic transfers taking place as has been pointed out by David Patton in his annual "State of the Markets" report for several years now.
 - As part of the process, IPPNY believes that the NYISO and its market participants should be reviewing whether aspects of our current process, such as optimizing to a forecast of conditions 75 minutes to 135 minutes ahead of time, are part of the problem with converging the markets.
- 3. What are the potential benefits for New York as a state from expanding regional markets?
 - a. Reliability benefits?
 - Allowing for faster revisions to the flow across the interfaces will give both New York and its neighbors access to additional resources to meet reliability needs.
 - b. Economic benefits?
 - Better coordination between the markets should lead to a framework that makes better use of tie capability, and should add liquidity to the overall market place.

- c. How should the benefits be measured?
 - Benefits should be measured by better convergence of the NYISO and its neighboring markets.
- 4. Should benefit sharing be considered?
 - No
 - a. Under what mechanism?
 - b. How should benefits be measured?
- 5. How should the costs for projects resulting from inter-regional planning efforts be allocated?
 - Costs should be allocated to loads in each area by determining the beneficiaries of each project.
- 6. Should costs be allocated differently for projects located solely within a single region vs. cross-border projects?
 - Costs for projects located in a single area should be allocated to the loads in that area
 - Costs for projects that cross boundaries between markets should be allocated in proportion to the benefit that each market is projected to realize because of the upgrade, and allocated to the loads in each market using that ratio.
- 7. Should the current through-and-out charges between NY and PJM be eliminated?
 - Yes, they are an inefficient barrier to otherwise economic transactions.
 - a. Why or why not?
 - This would complete the elimination of rate pancaking between PJM, and NY which has been an ongoing seams issue for some time.
- 8. What are the current obstacles to improving inter-regional coordination in the Northeast?
 - Shortening the scheduling time.
 - The process needs to take into account environmental initiatives such as RGGI and HEDD from a regional perspective on order to insure that any solution developed will actually be feasible when these initiatives

are effective. Analysis on a state by state basis alone could result solutions that actually do not work.

- 9. What pitfalls should be avoided in proceeding as we conduct a dialog with our neighbors?
 - We should avoid developing overly complicated scheduling mechanisms that attempt to optimize market participant transactions. The predominant cause of real-time divergence of the markets is the failure to be able to accurately forecast system conditions. This can best be addressed by shortening the time between when transactions are scheduled and when they flow. As noted above, we should consider the work that already has been done in this area.

10. How can we benefit from experience in other organized markets?

2008 Joint Board of Directors & Management Committee Meeting Discussion Questions Integration of Wind Resources into the NYISO Markets

- 1. If the wind generation connecting to the NYCA grid results in "bottled generation", how should curtailments be handled?
 - The deliverability rules have been designed to address this issue from a capacity standpoint. From an energy and ancillary services standpoint, LBMP markets generally address this issue.
 - The NYISO needs to implement a mechanism that enables it to dispatch wind generation down whenever it is necessary to address the flow capability of the transmission system. Having wind generation respond to a dispatch signal in these conditions will allow the NYISO to reduce only the minimum amount of generation that is needed to address the transmission overloads. It will also provide an economic signal on the value of power at the time.
 - The procedures and dispatch methods that are implemented must recognize the cumulative impacts of the various environmental initiatives that currently are being proposed to control NOx, CO2, etc. The ability and costs to the system of certain plants to respond the variability of wind, and thus, the availability of these units, including the use of allowances, emissions credits, etc,, must be taken into consideration when evaluating the viability of the further integration of wind resources onto the New York system.
- 2. What, if any, specific market rules or operational protocols should be reviewed in conjunction with wind integration and other renewables? All rules that may be affected should be reviewed.
 - The NYISO needs to develop dispatch rules for wind that allow all available generation to flow when the transmission system can absorb the generation but also provides economic signals on the need to reduce generation, and by what degree, when the system is overloaded.
- 3. Should funding for interconnection upgrades under Attachments X and S or RPS funding be used to support transmission expansion for renewable resources?
 - a. Should a different cost allocation model be developed for transmission investment to support state renewable policy (i.e., California or Texas model)?
 - No, we should not develop a different cost allocation model for a subset of generation resources. Continuing with our current method properly insures that individual projects bear these costs. This enables the projects that require the lowest premium above the market clearing pricesto be the projects that are chosen in the RPS.

b. What would be the impact on the wholesale markets of these various funding mechanisms?

• Adopting these mechanisms would distort the economic signals that are currently sent which require developers to bear the costs of any interconnection upgrades that are needed to interconnect their respective projects to the system. Adopting a different cost allocation methodology would take some of the costs out of the individual projects responsibility and would raise the cost of the RPS to customers.

Comments of the Long Island Power Authority and New York Power Authority NYISO Annual Meeting June 9, 2008

Interregional Coordination: Markets and Planning

LIPA and NYPA continue to support the coordination of electricity markets in the Northeast in order to maximize the efficiency of the electric system. LIPA and NYPA have been active participants in the seams resolution process through working with FERC and the individual ISO/RTOs. "Seams issues" are barriers to trade between the regional electric markets that exist purely as the result of artificial geographic boundaries in creating the Northeast ISOs/RTOs. Seams issues may explicitly prohibit trade between regions, create operational or technical difficulties, or increase costs to the extent that otherwise prohibits the economic exchange of energy, capacity or ancillary services. FERC regularly expresses its intention to remove market seams between ISOs and RTOs and has attempted to resolve them by requiring the updating of inter-regional agreements between the ISOs with milestones for seams resolution. This stemmed from original approval of the ISO's and RTO's of a narrow more regional scope as opposed to a single, more open Northeast Regional Transmission Organization (NERTO) which had been considered. Approval of the current structure was based, in part, on the expectation that the interregional Seams could be eliminated in a timely basis. As such, FERC currently requires the three Northeastern ISO/RTOs to report quarterly on the seams resolution process. LIPA and NYPA continue to support the seams resolution process

In April of this year the NYISO reported to market participants that PJM raised with it the issue of "cross border cost allocation" between PJM and New York. The NYISO noted that this issue is important to a number of market participants and state officials in PJM. Some PJM stakeholders have advocated for a mechanism whereby New York entities would be allocated a share of the cost for the major west-to-east high voltage transmission facilities proposed by PJM under the PJM Regional Transmission Expansion Planning Process (RTEP). Some of these concerns have been attributed to the development of new transmission interconnections with New York including the Neptune HVDC Transmission Project merchant line to Long Island ("Neptune line") and the proposed Hudson Transmission Project merchant line to New York City. Our comments are intended to provide background to the NYISO and stakeholders about the relationship of these projects to the PJM RTEP process with respect to the issue of cross border cost allocation.

The PJM RTEP Process and Merchant Transmission

Similar to New York's planning process, the PJM RTEP process has both reliability and economic components. <u>As of PJM's 2007 RTEP, the PJM Board has authorized \$9.8</u> billion of transmission upgrades and additions since inception in 1997. Nearly \$2 billion of these upgrades and additions are under construction or are already in service. The

costs of these projects are currently allocated by PJM to both internal network load and merchant transmission with Firm Transmission Withdrawal Rights ("FTWRs"). FTWRs (i.e. the maximum amount of firm energy that may be withdrawn at a merchant transmission point of interconnection in PJM), under the current PJM approach are modeled as firm load in the PJM RTEP and are directly allocated RTEP upgrade costs based on the FTWRs associated with the existing or planned merchant transmission facilities for which they have a signed interconnection service agreement. For example, RTEP costs have been allocated to the Neptune cable as if it were a 685 MW load located at its interconnection point in Sayerville, New Jersey. That interconnection point is considered by PJM to be a separate zone for cost allocation purposes only.¹ In PJM, costs are allocated to zones on the following basis:

- Reliability Upgrades
 - 500 kV and above upgrades are socialized across all PJM network loads and merchant transmission FTWRs on a load ratio share basis, such that, for example, PJM's Tariff in Schedule 12 now allocates costs to Neptune based on its load ratio share as being 0.48%,
 - Below 500 kV upgrades are directly allocated by zone using a DFAX approach, and
 - Upgrades below a \$5 million threshold are allocated to the local zone.
- Economic upgrades are allocated based on a beneficiary pays basis that could be either an economic benefits or DFAX approach.

The PJM RTEP cost allocation was set for hearing by FERC. All issues were eventually settled by parties with the exception of issues related to the appropriate allocation of RTEP costs to Merchant transmission. LIPA and NYPA have each submitted testimony on their respective positions on this issue in the FERC litigation and an initial decision is expected in early fall of 2008. An issue that has been raised is the point that Merchant Transmission and its customers do not receive incremental transmission rights for any upgrades that they ultimately are required to pay for.

Merchant Transmission Pays Interconnection Costs

Like other RTOs, PJM's OATT provides a "but for" test for the evaluation of minimum interconnections when determining system upgrades that are required to maintain the reliability of the PJM system and support firm deliverability to the point of interconnection and in determining the cost allocation for those upgrades.

A Transmission Interconnection Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Local Upgrades and <u>Network Upgrades</u> necessary to accommodate its Transmission Interconnection Request and that would not have been incurred under the

¹ As further discussed below, the appropriate allocation to Merchant transmission is currently subject to litigation at FERC.

Regional Transmission Expansion Plan but for such Transmission Interconnection²

Evaluation of the need for Upgrades is performed during the interconnection process as part of a System Impact Study. This study is a comprehensive regional analysis of the effects of interconnecting new Merchant Transmission Facilities to the PJM transmission system and an evaluation of their impact on deliverability to the aggregate of PJM Network Load. This interconnection analysis is performed under the same reliability criteria as are applied in the RTEP Baseline studies³ and are used to determine the amount of capacity and/or energy that can be reliably accommodated for firm energy withdrawals from the Transmission System at the Point of Interconnection.⁴ The Upgrade facilities are subsequently reflected in the RTEP as being an integral part of the PJM regional transmission plan.

Any Merchant Transmission Facilities, Attachment Facilities, Local Upgrades, or Network Upgrades constructed to accommodate a Transmission Interconnection Request shall be included in the Regional Transmission Expansion Plan⁵

For example, the Neptune line has undergone an interconnection study and has paid for all system reinforcements, amounting to approximately \$13 million, to make its 685 MW FTWRs deliverable. These upgrades were in service for the commercial operation of the Neptune line and by funding these required upgrades Neptune is ensuring PJM deliverability to the Neptune Line.

In another telling example PJM, through the System Impact Study (dated June, 2007) initially had estimated the interconnection costs for the planned Hudson Transmission Project at \$540 million. \$457 million of that amount was designated as new PJM system upgrades associated with 660 MW of Firm Transmission Withdrawal Rights. While the Facilities Study is now almost complete, the costs are still estimated in the \$300 million range. The difference between the System Impact Study and Facility Study has been driven by the withdrawal of generator retirement notices.⁶ If Hudson goes forward, New York City customers will pay for these PJM system upgrades.

² PJM OATT §42.2 Local and Network Upgrades.

³ *PJM Manual 14B: Generation and Transmission Interconnection Planning* at p. 12 (June 7, 2006). PJM conducts a series of analyses including: System Stability Analysis; Short Circuit Analysis; Generator Deliverability Analysis and CETO/CETL Criteria Analysis – Load Deliverability.

⁴ *PJM Manual 14B: Generation and Transmission Interconnection Planning* at p. 14 (effective June 7, 2006).

⁵ *Id.* at § 42.6.1

⁶ On April 15, 2008, PJM submitted a petition to FERC for a Declaratory order (EL08-55) on the issue of the withdrawal of generator retirement notices in determining cost responsibilities of customers in the interconnection queue.

Merchant Transmission Pays the Embedded PJM System Costs

PJM also requires that in addition to service on the Merchant Line itself, Merchant Transmission customers also must take transmission service on the PJM system.⁷ Firm point to point transmission service is charged the PJM Border Rate, an average of the individual PJM Transmission Owner Zonal Rates.⁸ By procuring and paying for firm transmission service, the Merchant Transmission Customer is paying its share of the embedded system costs commensurate with its use of the PJM system. The PJM Tariff provides that PJM must evaluate such transmission service requests up to the Merchant Line and determine whether any further upgrades are needed for the Point-to-Point transmission service to deliver energy from PJM capacity resources to the Merchant Line Point of Interconnection. If upgrades are needed when transmission service is requested, the requesting transmission customer will be obligated to also pay for these upgrades.⁹

Merchant Transmission customers also may take PJM nonfirm point to point transmission service and pay the discounted nonfirm rate. Merchant Transmission customers that hold FTWRs for the Merchant Line will be subject to curtailment priority based on the lowest priority in the chain of transmission service (e.g. if the customer is taking nonfirm PJM transmission service then it will be subject to curtailment consistent with the nonfirm service).

In recognition of the fact that Merchant Transmission or its customers pay for all interconnection and network related upgrades as well as the embedded costs of the transmission system commensurate with its use of the system, then such projects are fully compensating PJM for any headroom that existed on the system.

Summary of Issues Related to Cross Border Cost allocation to New York

The PJM Board has authorized billions of dollars of transmission upgrades under the PJM RTEP process. Under the PJM RTEP Process and PJM market rules:

- 1. PJM plans for internal network load and Merchant Transmission Firm Withdrawals in the PJM RTEP process.
- 2. PJM allocates RTEP costs directly to zones including to Merchant Transmission with Firm Withdrawal Rights. Issues related to what the appropriate share of costs that should be allocated to Merchant Transmission or its New York customers are currently before FERC.
- 3. Merchant Transmission interconnecting PJM with New York pays its "but for" costs including any network upgrades necessary to ensure PJM deliverability to the Merchant Transmission facility.

⁷ *PJM Manual 14E: Merchant Transmission Specific Requirements* at p. 28 (effective July 5, 2005).

⁸ The current PJM Border Rate for yearly firm transmission service is \$18.888/kW.

⁹ PJM OATT § 13.5.

4. Merchant Transmission customers that export energy from PJM to New York must take PJM firm transmission service and pay the embedded costs of the system if they desire to have their energy withdrawals treated as firm service.

While PJM may have raised the issue of "cross-border cost allocation" between PJM and New York and noted that PJM stakeholders are concerned about the existing and current proposals for transmission between the two regions, any costs that these facilities or their customers impose on the PJM system are fully compensated for as discussed herein and should not be utilized as a basis for cross-border cost allocation discussions. With the recognition that this "cross-border" issue is already addressed in the PJM market design, LIPA and NYPA look forward to the discussion of a broad range of market seams issues between the Northeast ISOs/RTOs.

Joint NYISO Board of Directors and Management Committee Meeting June 9, 2008

Key Components for a New York Forward Capacity Market (FCM)

Submitted on Behalf of New York Transmission Owners, LIPA and NYPA

- 1. A Forward Capacity Market should be mandatory with a three year forward planning horizon. The Forward Capacity Market should facilitate greater participation of new entry.
- 2. Generally, the amount of capacity procured in the forward market will be equal to the forecasted installed capacity requirement for the commitment period.
- 3. A forward market must be fully coordinated with the Comprehensive Reliability Planning Process (CRPP) so that the Reliability Needs Assessment (RNA) fully recognizes and accounts for forward capacity resource additions that meet the requirements of the forward market.
 - Requirements (e.g., qualification, financial assurance, reporting, site control) must be developed to assure the reliability of commitments from resources clearing the forward market.
- 4. The Transmission Owners must continue to exercise load forecasting responsibilities as is done in the current process.
- 5. With the implementation of a mandatory Forward Capacity Market, the administratively-set, downward sloping Demand Curve is not necessary and should be eliminated.
- 6. While an administratively-set Cost of New Entry (CONE) may be necessary for the transition period to a Forward Capacity Market, the ultimate goal would be to allow market forces (such as the capacity auction process) to determine the CONE.
- 7. It is important to coordinate and align the determinations of the Installed Reserve Margin (IRM) and Locational Capacity Requirements (LCRs) on the same timeframe as the FCM. (e.g. a three-year FCM would also necessitate a process to develop three-year forward IRM / LCR studies). It is also essential to develop a mechanism to allow Unforced Capacity Deliverability Right (UDR) holders to update firm versus reliability benefits of merchant facilities. This mechanism may be constructed to enable such adjustments to be made through the Reconfiguration Auctions.

- 8. Bilateral agreements and self-supply of resources are essential within an FCM construct and should be accommodated in a manner that minimizes administrative burdens and hurdles. If this cannot be achieved an opt-out provision may be necessary.
- 9. The current LICAP market could be used for the transition period to the first FCM Auction
- 10. A forward market must allow imports into New York and exports from New York and should also promote broader regional capacity markets.

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Joint NYISO Board of Directors and Management Committee Meeting June 9, 2008

Integration of Wind Resources in New York

Submitted on Behalf of New York Transmission Owners, LIPA and NYPA

As we know, renewable energy from wind will play an increasingly significant role in assisting New York meet the growing demand for clean energy.

In order to facilitate the development of renewable resource generation, NYSERDA uses System Benefit Charge (SBC) funds to incent the development of generation from renewable resources.

As a result, the NYISO needs to continue its work in the development of new policies and procedures that complement market and reliability requirements in recognition of the unique operating characteristics associated with renewable wind energy. As more wind energy is developed in the New York Control Area (NYCA), the deliverability of energy from wind production across the electric T&D systems becomes a critical issue. Sufficient progress is being made with regards to the deliverability of capacity; however the NYISO needs to improve policies and procedures in areas of;

- Improved dispatch of competing generation co-located on facilities not traditionally secured by the NYISO. The current practice relies on the New York Transmission Owner; however, the TOs lack the information and tools necessary to efficiently perform economic metric evaluations and order curtailments.
- Establish protocols for curtailment when transmission reinforcements are developer funded by specific but not all likely users. TOs may enter into a facility upgrade agreement with a developer who wishes to make their energy deliverable, however, the NYISO has not developed policies or procedures that guarantee firm RT transmission right or RT financial guarantees associated with the developers transmission upgrade.

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