UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Compensation for Generating Units	**)**	
Subject to Local Market Power Mitigation	**)**	**Docket No. PL04-2-000**
in Bid-Based Markets	**)**	

COMMENTS OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR

In response to the Federal Energy Regulatory Commission's ("FERC" or "Commission") December 19, 2003, Order Establishing Staff Technical Conference ("Order"), its January 28, 2004 Notice of Technical Conference and its February 6, 2004, Notice on Post-Technical Conference Procedures, the New York Independent System Operator ("NYISO") offers the following Comments addressing local market power concerns arising from the need to operate certain units in order to maintain reliability. These Comments address both generic issues and the specific issues that have arisen in the New York Control Area ("NYCA") and the markets administered by the NYISO.

I. INTRODUCTION

The NYISO has viewed with interest the Commission proceedings associated with the treatment of so-called Reliability Must Run ("RMR") generating units within the control areas administered by PJM Interconnection, L.L.C. ("PJM"). While the NYISO markets do not include units characterized by a "RMR" designation, as such, the NYISO has over four years of experience dealing with the operation of units in load pockets and with local market power issues. While NYISO's experience and observations may differ from PJM-specific issues as a result of differences between the NYISO and PJM markets, NYISO's experience is fully pertinent to the more general discussions of the PL04-2-000 docket. NYISO's comments focus

on conditions within the NYISO market, aspects of the NYISO's market design that are affected by, or present solutions to, RMR-related issues, the specific approaches adopted in New York to address local market power, and the on-going efforts in New York to address remaining issues.

The NYISO's goal in filing these Comments is to ensure that the Commission does not adopt and apply generically any new RMR policies that would hinder the NYISO in pursuing the course it and its Market Participants have chosen to address local market power issues, including the market power that can be exercised by RMR units. As Professor Hogan noted in his written comments following the Technical Conference, "problems of local market power mitigation can be both complicated and highly dependent on the particular fact situation."[1] As shown below, the New York markets feature a variety of sophisticated and interrelated measures to mitigate local market power, while fostering accurate and efficient price signals and ensuring that, where appropriate, units that are needed for system reliability are adequately compensated. The measures are closely tailored to the "particular fact situation" of the New York markets and market design. While the NYISO will continue to monitor and evaluate its markets and propose improvements where appropriate, a mandatory application to New York of generic local market power rules developed with other markets in mind would only be likely to harm, rather than improve, the carefully crafted New York market design.

II. COMMENTS

A. Locational Scarcity and New York Market Design Characteristics

The opportunity to exercise local market power may exist at locations on the electric grid where, because of a lack of infrastructure or other system operating characteristics, the generating resources available to serve loads are limited because the transmission available to

[1] W. Hogan, *Local Market Power Mitigation*, comments in Docket Nos. PL04-2-000 and EL03-235-000, Feb. 4, 2004, at 1.

import power into the region is limited. Abundant resources may (or may not) exist just outside the region, but because of transmission constraints, generating facilities located inside the constraint are necessary to maintain reliable service to the loads inside the constraint. That is, the availability of transmission and generation relative to load results in a load pocket. For purposes of these Comments, NYISO will refer to this condition as "Locational Scarcity."

Locational Scarcity problems have been experienced in the New York Control Area ("NYCA"), in other northeast markets, and around the country. Within the NYCA, Locational Scarcity is particularly notable in New York City, a well-defined load pocket that experiences frequent congestion. While there is some limited diversity of ownership of generating resources within New York City, the New York City load pocket contains a number of smaller load pockets that, when constrained, are served by so few entities owning or controlling generation that little or no competition exists in these areas. The occurrence of transmission limitations affecting New York City is so frequent that the NYISO has adopted, and the Commission has approved, special measures to mitigate the offer prices of generators in New York City when transmission congestion creates conditions of Locational Scarcity. The NYISO's rules and mitigation measures are built into the day-ahead and real-time markets it administers.

The existence of Locational Scarcity in New York City is not new. New York City was a recognized load pocket and high-cost area decades prior to commencement of NYISO's operations. Thus, provisions to address the potential exercise of locational market power within the City-wide load pocket were approved by the Commission prior to the formation of the NYISO,[2] and were built into the NYISO's day-ahead market software from the beginning. The frequency of in-City congestion, particularly in smaller sub-pockets within the New York City

[2] The market power mitigation measures the Commission approved prior to the NYISO's formation applied to the generation divested by Consolidated Edison Company of New York, Inc. ("ConEd").

pocket, triggers NYISO's in-City mitigation measures, which, by their nature, limit the revenue of the mitigated units relative to the prices that would have prevailed under competitive conditions in the affected load pocket(s).

The New York market design, and in particular the aspects of it discussed in these Comments, recognizes that bid mitigation must be implemented properly and as part of a properly designed market, in order to protect against the exercise of market power without undermining market incentives for investment in additional supply in constrained areas, or adversely affecting the adequacy of the revenues of a unit that is needed for local reliability. Since its inception, the NYISO has been working to address the often competing goals of (1) protecting customers from the exercise of market power by generators possessing market power due to Locational Scarcity, and (2) encouraging investment in generation and transmission infrastructure in New York City through appropriate market incentives. The NYISO has sought to balance these competing goals by implementing rules and design features affecting the following areas of market operation:

a. Transmission constraint and rules modeling;

b. Day-ahead and real-time market power mitigation;

c. Scarcity pricing;

d. Reserve demand curves; and

e. Capacity demand curves.

A key focus of the NYISO's efforts has been on identifying generation products that have values that are not adequately recognized in energy or ancillary services prices. By creating markets for additional products and services that add value by increasing reliability or reducing costs and ensuring that market prices in each of these markets accurately reflect the value of the service

being supplied, the NYISO has expanded the potential market-based revenue sources for sellers of generation in the markets it administers, while improving the accuracy of the price signals sent by those markets.

A common theme in the market design elements and improvements described in these Comments is ensuring that providers of energy, reserves and regulation services (including all sub-products) receive the incremental *marginal* cost of the services provided, so that reliance on supplemental "uplift" payments is minimized. "Uplift" refers to payments to individual units based on that unit's bids or costs, rather than a competitive market price, with the costs of the payments allocated to all loads benefiting from the service. Uplift payments to suppliers are generally not desirable, as such payments may not reflect the marginal cost of providing such services and do not provide a transparent market signal. Moreover, operating a unit but not including it in the bid stack that determines market clearing prices can push prices down the supply curve, resulting in lower market clearing prices than would result if all units were competitively bid.

In addition to energy and ancillary services prices, capacity auction prices should reflect the locational value of capacity. This is addressed in New York by requiring a Load Serving Entity ("LSE") in an area known to be subject to Locational Scarcity to procure a significant portion of its capacity requirement from generators located within the relevant load pocket(s). In addition, as described further below, a demand curve structure has recently been introduced to stabilize capacity prices throughout New York and create a more predictable source of revenue that can be relied on to attract the capital needed to finance new sources of supply. The demand curve structure also creates a revenue opportunity for excess capacity above minimum requirements, and facilitates increased reliability and competition.

B. Interaction Between Local Market Power Concerns and RMR Issues

While the tariffs that govern the New York markets do not use the terms "reliability must run" or "RMR," these Comments will use these terms in their commonly accepted sense, that is, to refer to units that are scheduled to operate because transmission congestion significantly limits the access of other suppliers to the relevant load. Because the transmission congestion that gives rise to RMR status limits the ability of alternate suppliers to compete with RMR units, RMR units may well have market power. The potential for RMR units to exercise market power at the very time they are most needed makes it necessary to have measures available to limit their ability to use their must-run status to set prices at non-competitive levels.

In some instances, RMR units are high cost units that are not economic to operate absent must-run (Locational Scarcity) conditions. These units may rarely operate in the absence of Locational Scarcity conditions, and as a result, may have little opportunity to earn contributions to fixed costs from infra-marginal operations (operating when market clearing prices exceed the unit's marginal cost). Correspondingly, if the system needs to call on such units to operate to avoid compromising reliability, there should be adequate means available to assure that the necessary units can recover their fixed costs. This is a particular concern if, consistent with competitive outcomes, energy prices at the times the units are operating are limited to the marginal operating cost of the marginal unit, and the marginal unit is the RMR unit or has a very similar cost structure. In such situations, energy revenues when combined with the unit's other revenue sources (*e.g.*, payments for capacity, ancillary services, *etc*.) may not be sufficient to make a RMR unit financially viable. Without adequate alternative revenue sources, such a unit may have little alternative to retiring. At the same time, the high cost of constructing a generating facility in a constrained area (because of high land prices, absence of adequate gas

supplies, absence of cooling water, opposition by local residents, or other factors) may significantly hinder or effectively preclude new entry. Under these circumstances, an incumbent RMR unit may be the only economically and politically viable alternative for meeting load, at least in the near or medium term.

The NYISO has proposed and implemented several measures in its market design to satisfy the potentially competing objectives of mitigating the exercise of local market power on the one hand, and ensuring accurate price signals to the market and revenue adequacy for needed suppliers on the other. Some of the measures the NYISO has implemented, such as locational pricing of ICAP and reserves, have already proven beneficial. Others, such as the demand curves for ICAP, are relatively new and, while initial results are encouraging, it is still too early to conclusively judge their success. Still others are part of the NYISO's proposed new real-time market and will not be fully operational until later this year. These measures include demand curves for ancillary services that will recognize the value of scarce supplies of ancillary services in both ancillary service and energy prices.

C. Importance of Additional Infrastructure in Mitigating Local Market Power

In many instances, the construction of infrastructure (either generation or transmission or both) is ultimately the key to eliminating Locational Scarcity and the need to mitigate local market power. That said, as explained in Section II.B., above, circumstances may be such that the cost or difficulty of constructing additional infrastructure exceeds the costs of continuing to operate the existing, albeit expensive, suite of generation. Moreover, the long lead-time for infrastructure improvements may leave incumbent generation in a position to exercise market power for significant periods of time. Simply permitting the exercise of market power under these circumstances would produce market price signals that are more harmful to the market than

bids that are mitigated to competitive reference levels. Artificially high prices resulting from the exercise of market power can send an incorrect signal as to the need for system expansion.

The NYISO agrees with the several comments made at the Technical Conference pointing out that where control of sources of supply is concentrated there may be market power problems in a load pocket, even though supply is more than adequate to meet the load in the pocket. Market power is a function of the concentration in the ownership or control of generation. Thus, supply may be adequate, but it may be in so few hands that market power can nonetheless be exercised, necessitating the application of market mitigation measures. If supply is adequate, and mitigated prices provide a good proxy for competitive prices, as is the case in New York, additional incentives for new entry should not be needed. Of course, entry could still occur, if the incumbents' suite of generation is relatively inefficient and could be profitably displaced by more efficient units.

D. Appropriate Methods of Mitigating Local Market Power While Satisfying Reliability Needs

This section of the NYISO's comments provides a brief description of the market design measures the NYISO has implemented that have had a positive impact on maintaining incentives for supply, transmission, or demand resources to respond to locational or general scarcity conditions. The measures are grouped based on topics identified in the Commission's January 28, 2004 notice.

1. Spot Market Bid Mitigation: Day-Ahead and Real Time Mitigation Methods

The NYISO's day-ahead and real time mitigation methods are designed to prevent non-competitive behavior by suppliers, in particular suppliers in areas where Locational Scarcity may exist when the transmission system is constrained. The NYISO mitigation measures, including its automated mitigation procedures ("AMP"), apply a two part (conduct and impact) screen

before mitigating a supplier's bid. These tests ensure that supply offers remain competitive, even when non-competitive bidding behavior by market participants with market power is observed. By focusing on the bidding conduct of individual generators, and applying mitigation only when that bidding significantly exceeds competitive levels and has a significant effect on market prices, the NYISO mitigation measures conform to Dr. Hogan's principle that "[d]irect analysis of withholding by individual generators is the best diagnostic" for market power.[3]

To ensure that, as much as possible, prices remain at competitive levels, bids are mitigated based on reference prices that in almost all cases are determined by bidding during prior competitive circumstances, rather than by administratively determined costs. This is consistent with Dr. Hogan's principle that "bid caps are better than price caps."[4] Since the profit-maximizing strategy under competitive conditions in the New York markets is to bid at a unit's marginal costs, reference prices based on competitive bids will reflect a unit operator's own determination of a unit's marginal costs. Since competitive market forces will discipline these determinations, they are likely to be more accurate than, and may well be higher than, an administrative estimate of the unit's cost. When the conduct and impact screens indicate that non-competitive behavior will result in non-competitive prices, the AMP applies mitigation *ex-ante* (prior to setting prices) in the day ahead and real time markets, avoiding the need to reserve or replace posted prices and any attendant unsettling effect on a market.

The conduct and impact thresholds are flexible, and can be set at levels tailored to specific load pocket conditions. In New York City, a formula is used to set the thresholds at levels that vary by the severity of congestion in the City-wide pocket or a sub-pocket. The

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[3] Hogan written comments at 2; *see also* Dr. David Patton's presentation at slide 10 (stating that: "The conduct and impact tests minimize unwarranted intervention by requiring substantial evidence of market power abuse prior to mitigation.").

[4] Hogan written comments at 2.

objective of conduct-and-impact mitigation, including the AMP, is to mitigate bids only when they are at non-competitive levels and are actually setting prices at non-competitive levels. When those conditions occur, by mitigating bids to levels observed during competitive conditions, the likelihood of inappropriate mitigation is reduced and the market is protected from the exercise of market power. Notwithstanding the imposition of default bids on one or more generators at the level of the generators' reference prices, *all* generators in the mitigated load pocket are paid the market clearing price, including the generators subject to mitigation. This approach allows price signals and unit revenues to reflect competitive conditions, with prices that better reflect the locational value of supply notwithstanding mitigation.

2. Market Design Changes

a. Constraint and rules modeling

Accuracy of price signals is improved by ensuring that as many potential real-time constraints as possible are modeled and incorporated into the real-time commitment and dispatch optimization. Accurate and complete constraint modeling minimizes the need for manual designation of units for out-of-merit ("OOM") operation. OOM operation results in the potential for uplift payments to affected units. As previously noted, uplift payments can distort price signals by reducing prices below competitive levels. Uplift payments also do not provide price transparency. The modeling improvements achieved over the three years of NYISO operation have progressively expanded and perfected real-time constraint modeling, particularly in New York City. These improvements have substantially reduced the amount of real-time uplift in the New York market, and yield real-time pricing signals that more accurately reflect real-time conditions.

The NYISO grid modeling improvements have also incorporated the local reliability rules ("LRR") that ensure reliable service in and around New York City. LRR modeling ensures that the price impact of units regularly committed to meet local rather than grid level reliability rules are included in the day-ahead price setting process, rather than being committed after the day-ahead market closes at the request of the local transmission provider, and as a result of OOM commitment adversely impacting the relationship between day-ahead and real-time prices. Special logic is incorporated into the scheduling and dispatch software to capture many of the costs incurred to respect these LRR constraints; these additional costs are allocated to transmission customers in the locality served by the LRR. The NYISO's approach yields an optimal resource solution, as well as an improvement in the accuracy of day-ahead prices for all parties, including those serving constrained load pockets. Consistent modeling in the day-ahead market of constraints modeled in real-time has improved consistency between the two energy markets and further improvements will be made in the Real Time Scheduling ("RTS") system improvements approved by the Commission on February 11, 2004 that are to be implemented in the fall of this year.[5] Consistent modeling between the day-ahead and real-time markets reduces the need for OOM supply to be added to the day-ahead commitment to address real-time constraints that might not have been captured in the day-ahead modeling. In short, accurately reflecting real-time conditions in the day-ahead market avoids out-of-merit (and hence, outside the market) commitment of resources, with consequent increases in the amount of potential uplift payments and reductions in the number of units that are being compensated on a market basis.

[5] Order Accepting Tariff Filing Subject to Modification, Docket Nos. ER04-230-000 and ER04-230-001.

Consistent modeling of constraints in the day-ahead and real-time market also improves the incentives for the submission of physical load bids in areas of Locational Scarcity. Since efficient unit commitment decisions that are consistent with likely real-time conditions can be made in the day-ahead market, physical loads can, through increasing participation in the day-ahead market, more effectively manage the risks associated with real-time market conditions. The importance of these improvements is underscored by the fact that approximately 45% of the prices paid by loads in New York are determined by the prices in the day-ahead market.

b. Scarcity pricing methods

Properly reflecting true scarcity conditions in prices is necessary to ensure that market prices accurately reflect the value of supply at times of scarcity, including Locational Scarcity. In particular, when operating reserve margins are reduced by generating energy from units that would otherwise be held for operating reserves, energy prices should reflect the value of the reserves that are foregone to produce the energy. Starting last summer, the NYISO put in place pricing improvements to achieve this objective. As implemented in New York, scarcity pricing includes a locational component that properly addresses the potential for scarcity conditions to occur in the eastern portion of the state that cannot be addressed by supplies located in the west or north because of transmission limits.

Two recent changes to price determinations in New York have been made to include the foregoing scarcity pricing principles in market prices. First, demand side resources, either bid-based Special Case Resources ("SCR") or fixed-rate Emergency Demand Response ("EDR"), called on to reduce consumption are allowed to set market prices. This is implemented by including the cost of calling on them to reduce consumption ($500/MWH in the case of EDR) in the dispatch logic. If after such a demand response reduction is called, the total reserve available

would, but for the reduction, have fallen below the required reliability minimum, the demand resource price will set the market prices if demand reduction is the marginal resource. This price determination is implemented locationally if demand response is only needed in one area of the NYCA (*e.g.*, in eastern New York).

Second, if New York experiences a shortage of 10 minute spinning or non-spinning reserves because of shortage conditions, as opposed to shortages resulting from transitional delays as reserves are activated, then the price of energy will be set at the $1000 bid cap in New York City, since that is effectively the price the NYISO would be willing to pay to relieve the reserves shortage. Prices elsewhere are set based upon the appropriate application of losses. This pricing rule is implemented in a manner that allows the price to be set at a scarcity level in only one region of the market, *i.e.*, eastern New York, when the reserve shortage is not market-wide. In addition, the NYISO scarcity pricing structure also ensures that market-wide needs for supply are properly reflected in market prices, including the fact that generation inside of a load pocket can provide operating reserves for load outside the pocket. These market scarcity prices help compensate *all* generators (including those in load pockets), thereby contributing to the relief of potential generation revenue shortfalls. Scarcity pricing will further improve with the implementation of the reserve demand curves in the recently-approved RTS, as described in the next section.

c. Reserve market design

Reserve markets in New York provide an important additional source of revenue to suppliers beyond the energy markets. In both the day-ahead and real-time markets, energy supply offers are co-optimized with offers to meet reserve and regulation requirements, with

energy and ancillary service market offers allowing the most efficient allocation of resources to meet locational energy, reserve, and regulation requirements.

Locational reserve requirements in New York State are an efficient means to address transmission limitations. Including the locational reserve constraints in the commitment and dispatch software results in optimized scheduling of reserve capacity given the physical configuration and resources of the system. The alternative would be a less efficient reservation of scarce transmission capacity in order to support reserve imports or the use of sub-optimal manual commitment of units needed for reliability. NYISO has implemented locational reserve requirements in a series of three concentric zones with the smallest (center) zone encompassing Long Island, the next zone expanding to the North and West to include all of eastern New York (including New York City and Long Island), and the final zone encompassing the entire NYCA. Prices for reserve products can and do vary by zone, with higher prices in areas of limited or more expensive supply.

Units that are chosen to provide reserves will be paid an opportunity cost when they are backed down from an otherwise economic energy output in order to provide reserves. In this manner suppliers are, with respect to energy revenue, either indifferent to whether they are selected to supply reserve or energy, or can improve their financial position by supplying reserves. As previously noted, units located in the energy limited Long Island and Eastern New York areas are more likely to receive high prices for their reserve supply than those in the less supply constrained areas of the market.

With the start-up of RTS later this year, New York will implement an even more sophisticated reserve market pricing methodology. RTS pricing will, in addition to opportunity cost, reflect the cost of imports selected to create reserves. RTS ancillary services improvements

also include two full settlements (day ahead and real-time) for reserves and regulation, with real-time prices co-optimized with the energy dispatch at five minute intervals. In a key innovation, under RTS, prices will also rise as the degree of reserve shortage increases during regional or local scarcity conditions, through the use of demand curves that specify values for each of the different types of reserves and for regulation. As units are selected to supply energy, rather than to provide operating reserves or regulation service, the specified reserves values will be reflected in energy prices and reserve or regulation prices. This requires administrative determination of the demand values, but as shown in the NYISO's recently-approved RTS filing, the tools available produce reasonable proxies for market demand. The resulting demand curves will replace out-of-merit calls on units, which are themselves administratively determined. Moreover, without a demand curve, foregone reserves are, in effect, priced at zero, which is plainly not an appropriate valuation. The advent of the demand curves are expected to result in a substantial improvement in the accuracy of the price signals in the New York energy and ancillary services markets.

The intent of the NYISO market design for the pricing of ancillary services and related energy supply is to allow the real value of the reserve and regulation products to consumers to be reflected in market prices. In New York there are very distinct locational differences in the value of products as a result of congestion and, in some cases, environmental restrictions. The NYISO's approach specifically incorporates these locational considerations in the software design so that the day-ahead and real-time co-optimized scheduling and dispatch are based on prices that reflect market constraints. These software design capabilities also allow the NYISO to examine as yet unrealized pricing opportunities, such as the benefits of implementing more

specific locational prices in New York City, where increasing the locational specificity of prices may provide additional benefits to the market.

d. RMR Contracts

As noted in section II.C, it may not be possible to develop market-based solutions that can adequately compensate suppliers in all Locational Scarcity situations. High cost units in small load pockets with no effective competition that are regularly mitigated to a reference price at the units' marginal operating costs may have little or no opportunity to operate when market clearing prices exceed its marginal costs, and thus have little or no opportunity to recover their fixed costs. Of course, if a unit is not in fact required for system reliability, there is no obligation to ensure that the unit recovers its costs. If the unit is needed however, in some cases a bilateral RMR arrangement may be the only practical alternative for keeping a unit from being retired. As noted by several Technical Conference participants, such contracts should be viewed as a last resort. This is particularly so in light of the variety of mechanisms used in New York to produce market-based outcome with transparent prices that reflect the full value of generation resources.

4. Infrastructure Solutions

a. Construction of additional infrastructure is often the best solution, but restrictions may hinder implementation

While the NYISO firmly believes the construction of additional transmission and generation infrastructure is the best solution to genuine scarcity and many of the reliability problems that New York faces today, serious impediments exist to the timely implementation of infrastructure solutions. The first is the fact that the NYISO lacks authority to plan the expansion of the New York Transmission System. NYISO and its market participants are presently engaged in extensive discussions that are expected to culminate in a series of regulatory filings in mid to late 2004, in which the NYISO will seek approval from regulators to

assume responsibility for planning the maintenance and expansion of the portion of the New York transmission system that is subject to its control.

Second, the areas in New York where load pockets exist are all densely populated areas. Neighboring land owners are likely to protest the construction of new infrastructure or the widening of existing rights-of-way. In addition, land prices are high, and generating facilities are subject to stringent environmental regulation. Third, regulatory requirements at both state and federal levels (combined with active participation by affected parties) dramatically increase the cost and length of time necessary to construct the infrastructure needed to handle New York's growing demand. These collateral constraints on infrastructure development make it all the more important to implement market structures that reflect the true locational value of generation and transmission. If the market sends accurate price signals, informed public policy decisions can be made addressing costs imposed on the energy markets by impediments that exist outside those markets.

b. Capacity markets

As with the energy and reserve markets, the capacity markets in New York are designed to recognize the value of supply based upon where it is located in reference to historical congestion patterns. LSEs in New York are responsible for purchasing specific amounts of capacity based upon NYISO-determined peak load requirements. In New York City and on Long Island, deliverability is often limited by transmission congestion. NYISO capacity obligations for LSEs in these locations currently include a specific requirement that capacity sufficient to serve 80% of the peak load forecast for New York City must be purchased from resources located in New York City. Similarly, at present, capacity sufficient to serve 95% of Long Island's peak load forecast must be purchased from resources located on Long Island.

These percentages are updated annually prior to each Capability Year. Bid and price caps have been imposed on certain generation units in New York City, as appropriate, to mitigate market power arising from the NYISO's locational reserve requirements.

While the capacity market in New York provides locational value signals, it also includes measures designed to stabilize the price of capacity. Price stabilization is accomplished by the capacity demand curve the NYISO introduced in June, 2003. Prior to the implementation of the demand curves, capacity above the established reserve requirement effectively had no value. The new demand curves phase out the value of capacity above the reserve requirement more gradually, rather than letting it fall straight to zero once reserve requirements are met. The demand curves thus recognize the value of capacity beyond the specified minimum requirement, which leads to more stable capacity prices, rather than a boom-or-bust cycle as capacity levels move below or above the reserve requirement. Although only limited results are available at this time, indications are that the ICAP demand curve has succeeded in reducing price volatility in the New York City capacity market, which should have a beneficial effect on stabilizing supplier revenue.

E. Appropriate Mix of Short- and Long-Run Solutions

As shown above, the New York solutions to Locational Scarcity include both short run solutions based on day-ahead and real time markets for energy and ancillary services, and longer run solutions based on capacity markets and infrastructure improvements. The appropriate mix is achieved by maximizing the use of market-based solutions and, to the greatest extent possible, letting market driven responses to accurate price signals determine the relative adoption of short run and long run solutions.

F. Prospect for Successful Implementation of Solutions

While some solutions are still under evaluation, the NYISO believes that the approaches described in these Comments are both theoretically sound, and well grounded in the practical realities, including the reliability requirements, of the markets administered by the NYISO. Most of the improvements have already been implemented, and are proving successful. Most if not all of the remaining solutions described above will be put in place with the implementation of the RTS this fall. In all cases, the improvements will be subject to on-going scrutiny and evaluation by the NYISO, its independent Market Advisor, and the Market Participants.

G. Is there a Single Policy that is Appropriate for All Markets?

The NYISO believes that it is critical for the Commission to recognize that no single, one-size-fits-all policy exists that can be applied to address RMR concerns in all markets, because of differences in the stages of development of the markets in different areas. As detailed above, the robust and highly developed markets in New York have a variety of sophisticated mechanisms to ensure that they produce accurate price signals, and thus produce market driven solutions to Locational Scarcity, while at the same time mitigating the exercise of market power where necessary. Different approaches may be warranted in areas where markets operate differently. By the same token, simply grafting solutions employed in other markets onto the New York markets is unlikely to prove beneficial.

H. Effectiveness and Success of NYISO's Local Market Power Mitigation Approach

The market structure and design elements that the NYISO has put into operation provide extensive experience and empirical data with which to measure their effectiveness. This data and experience is subject to regular monitoring, evaluation and reporting by both the NYISO's Market Monitoring and Performance Unit and the independent Market Advisor. As noted above,

additional market design improvements will result from the NYISO's implementation of its RTS software later this year. Data on the effectiveness of the full range of market design improvements that will ultimately be in place will thus have to await the implementation of RTS. The NYISO will continue to monitor and evaluate market data on an ongoing basis to determine if additional improvements in the market responses to Locational Scarcity can be made once RTS is in place.

The provisions included in the NYISO market design to address issues of market power emanating primarily from the pervasive transmission congestion present in New York have protected consumers from monopolistic behavior, while limiting the financial consequences of mitigation to suppliers with assets located in the New York City/Long Island area. The NYISO's conduct-and-impact mitigation scheme has been in place for several years, and has demonstrated its success and effectiveness over that period. As a result, the New York approach, or key portions of it such as the AMP, have been adopted in other ISO markets. The NYISO's market power mitigation measures are designed to meld with the other market design measures described in these Comments to provide the most accurate price signals possible to the New York markets. The need for, and benefits of achieving appropriate price signals was a common theme in many, if not most, of the comments offered at the Technical Conference.

I. Current Concerns or Issues About Local Market Power Mitigation

See discussion above.

J. Solutions Under Consideration, or Areas for Continued Improvement

The NYISO is considering several methods of improving the way in which the market as a whole interacts with areas of Locational Scarcity in and around New York City. Over the next

several years, new solutions will be proposed by the NYISO Staff for consideration by its Market Participants via the NYISO's governance process.

For example, in the near future, the NYISO may propose adding a New York City price to the three existing zones used to determine reserve prices in New York. New York City is often transmission constrained to a greater degree than the eastern New York area as a whole (except Long Island, which is already a separate zone for purposes of reserves). Applying a New York City specific price when such a condition occurs will yield a more accurate representation of the value of additional supply, demand, or transmission resources that are capable of serving New York City.

A second market improvement the NYISO hopes to pursue is revising the means by which the New York City local reliability rules ("LRR") are integrated into the day-ahead market solution. Specifically, market benefits are expected to derive from incorporating the LRRs into the determinations used to arrive at the initial market solution, rather than applying the LRR's later in the process to modify the proposed market solution. The proposed change to the day-ahead market solution is expected to improve the overall optimization of the commitment and thereby reduce occasional over-commitment that can occur within the current process. Integrating LRRs into the market solution must be accomplished in a manner that allows specific LRR costs to be assigned fairly to the market participants benefiting from the LRR.

The evolution of the recently applied demand curve concept to both ancillary services and capacity markets will require continuing attention by the NYISO and its market participants to evaluate the results and refine the methods applied to the respective markets.

Finally, the AMP method of mitigation is continuing to evolve, and efforts to perfect existing applications and to determine and evaluate means to apply the AMP concept to other potential problems continue to present opportunities to improve the markets administered by the NYISO.

K. NYCA Infrastructure Needs

See discussion above.

III. CONCLUSION

As shown above, in New York market power mitigation, price inducements to market entry, RMR unit revenue adequacy and other RMR issues are addressed by a sophisticated series of market design elements that work together to produce efficient market outcomes with accurate price signals. These elements are made possible by the robust energy, ancillary services and capacity markets in New York, and recognize the physical parameters and limitations of the transmission and generation resources in New York. Further improvements to the NYISO market design will be made as the RTS is implemented, and doubtless the continuing monitoring and evaluation of the New York markets will suggest additional improvements even after RTS is in place. The NYSIO respectfully submits, however, that improvement of its markets is not likely to result from, and indeed the market may well be harmed by, being subjected to generic

RMR rules that are designed for implementation in other markets. Local reliability rules should be tailored to the market design in which they are intended to operate.

Respectfully submitted,

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Dated: February 27, 2004

CERTIFICATE OF SERVICE

I hereby certify that copies of the Comments of the New York Independent System Operator, electronically filed with the Commission in Docket No. PL04-2-000, were served this day on the parties appearing on the Secretary's official service list in Docket No. PL04-2-000 by first class mail, postage prepaid.

Dated at Albany, New York, this 27th day of February, 2004.

/s/ Alex M. Schnell
New York Independent System Operator
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