STATE OF NEW YORK PUBLIC SERVICE COMMISSION

Case 06-M-1017

Proceeding on Motion of the Commission as to Policies, Practices and Procedures for Utility Commodity Supply Service to Residential and Small Commercial and Industrial Customers

Comments by The City of New York

November 17, 2006

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Introduction

The City of New York (City) hereby responds to the Commission's <u>Order Instituting Proceeding and Notice Soliciting Comments</u> issued in the above-captioned matter on August 28, 2006. The City's comments outline an integrated-portfolio-management approach to resource planning and procurement that addresses the need for both price stability and market improvements. In particular, medium- and long-term contracts are needed to reduce the City's vulnerability to shortages of capacity, volatile prices, and high energy costs, and to better integrate the City into the regional power markets.

Although the City emphasizes the issues facing Con Edison, the principles in these comments apply to all New York utilities. The supply problems in New York City are more complex and acute than those upstate, but the entire State may face similar issues within several years.

Each New York electric utility procures generation and related services for a large fraction of its customers, in various ways and under various names. This Power Supply Service (PSS) serves the customers who have not chosen a third-party supplier, or who have returned to a utility's service.

The following section summarizes the City's positions in this proceeding and the basis for those proceedings. It is followed by four additional sections, which provide additional detail on: (1) the planning process, (2) the procurement process, (3) the special problems of the New York City load zone, and (4) cost recovery.

Summary of Recommendations

The City believes that utility power-supply portfolios should be planned and managed to (1) moderate consumers' exposure to sharp price spikes, such as those in 2005–06, when NYISO Zone J (New York City) wholesale electricity prices rose approximately 40 percent above 2004 levels, and (2) improve the regional mix of generation, transmission and demand-side resources. The utilities should work with the Public Service Commission and other relevant stakeholders to design and implement an Integrated Portfolio Management approach to meeting PSS requirements, keeping in mind the following basic principles:

- The market-price risks currently borne by consumers should be mitigated.
- The PSS procurement should be used to overcome inefficiencies in the market.
- The PSS process should lead to prudent procurement decisions.
- The utilities should recover all their reasonably incurred costs of procurement.

- Procurement of PSS should be competitively neutral, neither encouraging nor discouraging consumers from choosing competitive power suppliers.
- Power should be procured either by the distribution utility or, in cooperation with the utility, a special-purpose entity or existing public agency.

Integrated Portfolio Management

New York utilities currently provide energy, capacity and other services for PSS from a number of sources, including various combinations of the following:

- strategic long-term resources (typically over 10 years): retained generation, (traditional utility assets that were not divested), legacy long-term contracts with independent power producers, transition contracts with divested generation, and recent long-term contracts
- mid-term contracts (from five to ten years)
- short-term contracts (from one to five years)¹
- spot purchases from the monthly and daily bilateral markets and from NYISOadministered hourly energy markets

These sources all meet at least short-term generation requirements for PSS, but they have very different effects on two characteristics of power supplies: price stability and market improvements.

In terms of price stability, monthly contracts will tend to produce more stable prices than daily or hourly purchases, since the monthly prices average out the effects of unexpected weather extremes, fuel-cost spikes, plant outages, exercise of market power, and transmission outages. Similarly, short-term fixed-price contracts will be more stable than monthly contracts, mid-term fixed-price contracts will be more stable than short-term contracts, and long-term fixed-price contracts will be more stable than mid-term contracts. Even contracts that include the pass-through of fuel costs will tend to produce more-stable prices than spot purchases, as the fuel costs of baseload plants (even gas combined-cycle plants) vary less than the market price of electricity.

Currently, whether a utility purchases from the spot markets or purchases short- or midterm contracts, it usually simply takes the prices offered by existing units. Only long-term contracts will attract new entrants and thereby change the amount of resources available in the market. Increasing the amount of newer, more-efficient resources reduces prices, mitigates price volatility, raises the efficiency of fuel use for electric generation, reduces

¹The Federal Energy Regulatory Commission uses "short-term" to refer to contracts for power covering less than one year. In these comments, "short-term" is used as in capital markets, in which bonds due in less than five years are considered short-term.

emissions of pollutants and CO₂, and increases diversity of both fuel and resources. A utility or other entity procuring long-term power can require that the power be supplied from new generation or transmission resources, thus spurring construction of additional, cleaner, and more-efficient resources.

Long-term contracts induce new construction and reduce prices, compared to sole reliance on speculative merchant construction of new resources, for the following reasons:

- Financing costs are lower for projects that have long term contracts.
- More developers will participate in an RFP for a long-term purchased-power agreement than will develop projects on a merchant basis. Such competition creates a larger and more diverse pool of candidate resource additions.

Long term contracts can also moderate the prevailing multi-year boom-bust cycle. Typically, no resources are added until prices get very high. The high prices cause a development rush, resource additions exceed requirements, and prices fall. Then prices are depressed for significant periods and generation owners experience financial distress and bankruptcy, resulting in high risk premiums for future projects, no additions, shortages, high prices, and a repeat of the cycle.² This cycle is characteristic of industries that are capital intensive, and have high fixed costs, long project lead times and "lumpy" capacity additions such as power generation, liquefied natural gas, chemical manufacturing, and mining. New York City is especially vulnerable to the tight-supply phase of the power-market boom-bust cycle, as a large share the City's energy is supplied by divested generators with energy payments based on soaring market clearing prices.

It is particularly useful to distinguish between *commercial* contracts, up to five years in duration, that are readily available in the markets to utilities and competitive suppliers, and *strategic* contracts, for more than five (and often more than ten) years, which may result in the addition of new resources.

Resources for Power-Supply-Portfolio-Price Stability

Utilities can provide PSS price stability through a mixture of spot, short-term, mediumterm, and long-term purchases. The spot and short-term components of supply can be acquired as individual contracts and services (energy, capacity, ancillary services, and hedging), with the utility handling the bundling and balancing services, as is the case currently with Con Edison and most New York utilities.

²This pattern has been observed in various generation markets, such as the Midwest, the Southeast, upstate New York, New England, and PJM. Due to the difficulty of adding generation in New York City, the market is unlikely to build sufficient capacity, let alone excess, in Zone J.

Alternatively, the utility can contract for slices of full-requirements power from markets, to provide all the services (possibly net of longer-term purchases). Full-requirements contracts are the norm in New Jersey, Massachusetts, Connecticut, Maine, Rhode Island, Maryland, Delaware, and the District of Columbia, and are being introduced in Illinois.

In either case, contracts for price stability can be with any credit-worthy supplier: owners of existing sources, marketers bundling a variety of sources, or even financial intermediaries. The underlying resources can include generation and transmission in a variety of locations, contracts for future delivery, and financial settlements. Upstate utilities may be interested in contracts primarily for energy; in Zone J, the high cost of capacity justifies hedges for that product as well.

The utility can leverage its buying power by inducing generators and financial intermediaries to compete for bilateral contracts to fill most of the overall PSS power requirements. Some utilities may be faced with decisions about how fast to increase the contractual portion of PSS, while others, with more long-term commitments, may be identifying the period for which existing contracts are sufficient, when contract terminations will justify acquisition of new contracts, and what form those contracts should take. With most of the PSS requirements satisfied under bilateral contracts, spot purchases would be limited to balancing the contract supplies with variations in actual loads.

Resources for Market Improvement

Long-term contracts will clearly be needed to bring on line new generation plants and transmission lines. In turbulent markets, only long-term contracts provide developers with the assurance necessary to finance major new projects that can cost over a billion dollars. This is particularly true following the bankruptcies and financial difficulties of so many merchant generators over the last few years.³ Merchant developers such as NRG Energy, Inc., are now focused on securing long-term contracts in conjunction with new resource development.

Despite the generally tenuous capacity situation in New York City, and the high energy costs, very little merchant resource development has occurred. Of some 6,500 MW of generation proposed for Zone J, about 1,970 MW has been built. Of the completed generation, 1,700 MW, or 86%, was built by the load-serving utilities (Con Edison and NYPA) or under contract to them. No generation is currently under construction in Zone J; the next addition is likely to be associated with the successful bid in the ongoing NYPA RFP #4 process.

³Calpine, Mirant, NRG, PG&E's National Energy Group subsidiary, and Enron were all forced into bankruptcy. Dynegy, Aquila, Allegheny Energy, and AES all underwent substantial financial distress.

This lack of new merchant additions in Zone J does not result from a lack of proposals. Several resource additions have been proposed, largely or fully licensed, and then delayed for years, apparently for lack of a contract. The current lack of the one-stop siting approval previously available through PSL Article X may discourage development of some new large generation, but even projects with existing Article X approvals are not going forward.⁴ While merchant generation has been stymied, southeast New York has continued to be overly reliant on antiquated in-City plants with relatively high emissions and poor operating efficiencies.

The experience with transmission has been equally bleak. While numerous transmission projects have been proposed into Zone J, from PJM and upstate, and the Article VII transmission-siting statute remains in force, all have failed due to the lack of contracts. In contrast, LIPA has been willing to enter into long-term contracts for transmission capacity, and has therefore been able to put the 330-MW Cross-Sound Cable from New England into service and has the 660-MW Neptune cable from New Jersey to Long Island under construction.

Of the several parties in the power-supply market—utilities, energy-service companies (ESCos) that sell power to retail customers, wholesale marketers, financial intermediaries, and the NYISO—only a utility, or an entity set up specifically to procure PSS, could commit to the long-term contracts necessary to bring new resources on-line.

Energy-service companies generally purchase the bulk of their energy and capacity in short-term bilateral contracts, structured to approximate the size, length and shape of their retail service contracts. Since bilaterals are not generally available to exactly match retail load shapes, ESCos balance and shape their contract purchases in the NYISO spot markets, from which they also purchase ancillary services. ESCos' portfolios are generally too small and too volatile to include utility-scale long-term resource commitments. As a result, ESCos are not in a position to commit to the long-term contracts needed to support resource additions.

The NYISO has responsibility for identifying that resource additions are needed to ensure reliability, but its ability to bring resources on-line is limited. The NYISO has no current capability for procuring long-term resources, cannot require construction of generation or inter-ISO transmission, and cannot provide long-term incentives for developers to add resources. Even the NYISO's ability to require utilities to add transmission within New

⁴For example, Astoria Energy SCS received Article X approval in November 2001 for 1,000 MW, but five years later has proceeded with only 500 MW— not coincidentally, the amount under a ten-year capacity and energy contract with Con Edison. Similarly, the Siting Board approved the repowering of the Astoria plant (now owned by US Power Generating) in June 2003, but the owners have not proceeded with construction.

York has not been tested.⁵ And as the ISO's responsibility in this area is essentially limited to maintaining reliability, it cannot use even its limited tools to pursue cost-reducing resources. Consequently, no progress has been made in reducing the large disparity in capacity and energy prices between Zone J, Upstate New York and PJM.

In contrast, PJM and ISO New England consider both reliability and economics in the regional grid plan and view transmission differently, as a means to facilitate competition in the wholesale generation market. As a result, neighboring regions are addressing transmission bottlenecks more aggressively than New York State.

Wholesale marketers and financial players provide short- and medium-term contracts, particularly for energy, but are unwilling to take on long-term purchase contracts unless they have a customer who is willing to sign an off-setting contract to hedge the intermediary's risk.

Thus, by what amounts to a process of elimination, the distribution utility (or a new special-purpose entity serving the PSS load) is the logical counterparty for long term contracts. The utilities are virtually certain to continue serving very large portions of the generation load for many years to come. And the utilities will continue to have financial relationships with their delivery customers indefinitely. Hence, they are logical parties to enter into the long-term contracts necessary to improve the generation system, regionally and statewide. The Commission should consider adopting appropriate incentive mechanisms for utilities that successfully undertake long-term procurement of strategic resources. If the utility is unable or unwilling to enter into such contracts, some other entity can be given the role of power purchaser, with the costs flowed through the utility's billing process.

In soliciting long-term power contracts, a utility can require (or express a preference for) location, technology, emissions, pricing arrangements (*e.g.*, basing fuel prices on long-term contracts), and interconnection to deal with local, regional and statewide problems. This was Con Edison's approach in the solicitation that led to the contract with SCS Astoria Energy, a highly efficient 500-megawatt combined-cycle plant.

The New York Power Authority's recent RFP for 500 MW of capacity was quite flexible: both generation and transmission resources were eligible, bidders could offer capacity only or capacity with energy, and the term could be for ten or more years. The RFP indicated a preference for resources that reduce electricity costs Citywide, add to the diversification of the total number of electricity supply sources and creditworthy counterparties, contribute to the diversification of fuel supply of electricity supply

⁵In other words, if the NYISO concludes that a transmission line is needed to maintain reliability, but the incumbent transmission owners fail to pursue construction, it is not clear how the NYISO could implement its conclusion.

sources, and contribute to policy objectives, including improvements to environmental and health quality and consistency with the City of New York's land-use policies and rezoning plans. It is noteworthy that NYPA's RFP, with its promise of a long term power-purchase agreement with a credit-worthy counterparty, attracted diverse bids from fourteen different generation and transmission developers.

Utilities should also be encouraged to build or contract for inter-regional transmission on behalf of all end use customers in their transmission-service territories, and permitted to recover the costs through their transmission tariffs. This would solve the current dilemma in southeast New York where no party is ultimately responsible for procuring interregional transmission, aside from LIPA. Con Edison has not increased the transfer capability between Zone J and either upstate New York or PJM for approximately 20 years.⁶

Two factors may have discouraged Con Edison from executing strategic contracts to resolve the supply constraints in serving the needs of the City. First, the Company is under pressure to reduce its share of the retail market. It is understandably reluctant to incur long-term contract obligations that might appear to require long-term maintenance of its current market share. Second, the Commission has not assured the Company that it would recover its costs from previous long-term contracts, including the SCS Astoria Energy project. While the PSC's strong signals that Con Edison would recover the costs of prudent contracts were sufficient for the Company to proceed with SCS Astoria Energy, further clarification of cost-recovery standards may be useful.

Designing the Power-Supply Portfolio

The appropriate mix of contracts will depend on market conditions, the extent of migration between PSS and competitive services, regional capacity and energy balances, and the barriers to addition of new capacity. Capacity-only contracts may suffice to resolve regional supply problems if the capacity payments are adequate to allow the development of the resources. Many resource developers may require the additional revenue certainty of an energy contract, and the revenues from the resale of energy into the market will mitigate the price risks for the utilities and their ratepayers.

Each utility (or some alternative entity acting on behalf of the utility's customers) should develop draft portfolio targets for generation, transmission, and demand-side resources for review by interested parties and the Commission. Those targets would represent the optimal mix based on regional priorities, such as stabilizing generation costs for PSS customers and dealing with local transmission constraints. Each utility should also

⁶ As discussed in fn.17 herein, the one exception is the planned M 29 line from Westchester to northern Manhattan.

develop a procurement plan to acquire the resource mix identified in its portfolio targets. For Con Edison's PSS, the targets and acquisition plan would include the following:

- balancing the short-term PSS portfolio among various contract and spot purchases;
- balancing the short-term PSS portfolio between in-City and Upstate resources, in both energy and capacity;
- ensuring the development of in-City resources to improve reliability and reduce energy costs, fuel use, pollutants and greenhouse gases.

NYSERDA, or another entity under a reenacted PSL Article VI, could if necessary undertake a statewide process to establish targets for resource additions and mechanisms for using various utilities' PSS acquisitions to ensure the development of those resources. Such mechanisms would generally be mid- to long-term contracts, divided among the utilities affected by various supply problems.

Where regional problems exist, spanning multiple utilities but less than the entire state—such as southeastern New York—the relevant utilities and key stakeholders such as the City of New York should participate in a regional solution. At the present time, southeast New York urgently needs a plan to address high prices, high emissions, and resource adequacy. The NYISO Reliability Needs Assessment (RNA) Report points out that voltage constraints in the Lower Hudson Valley are likely to reduce transfer capacity (and hence reliability) into Zone J; those constraints can be avoided by new resources anywhere in Zones G through K.⁷ In addition, dedicated controllable transmission to PJM and ISO New England can be used for firm imports. This suggests the possibility of a more flexible approach to meeting the overall regional needs, including Zone J requirements, by siting generation outside of the constrained Zone J urban environment. The feasibility of this approach should be confirmed in the integrated-resource-management planning process.

Cost Recovery for Power-Supply Contracts

The prudently incurred costs of utility power-supply contracts should be recovered from ratepayers in a way consistent with the following:

- It fully compensates the utility for taking on the costs and financial risks of purchase obligations;
- It does not impair the financial standing of the utility;

⁷Comprehensive Reliability Planning Process (CRPP): Reliability Needs Assessment, New York Independent System Operator, December 21, 2005; The Comprehensive Reliability Plan 2005: A Long-term Reliability Assessment of New York's Power System, New York Independent System Operator, August 22, 2006, pp. 19–20.

- It facilitates, or at least does not disadvantage, the competitive retail market;
- It matches charges to PSS customers to the costs they impose.

All these goals may be difficult to achieve if the costs of the strategic long-term contracts are passed through only to the utility's residual PSS customers, rather than to all retail customers. If the contract prices are less than the market price over a prolonged period, customers will want to stay with, or return to, PSS service, undermining competition. If the contract prices are higher than the market price in a future year, customers will want to leave PSS, and recovering the utility's costs could require that customers be forced to stay on PSS.

The potential problems can be avoided by viewing the costs of the strategic resources in each year as having the following two parts:

- A market-equivalent portion, charged as part of the PSS rates;
- A portfolio differential, charged or credited to all customers through the delivery rates.

The market-equivalent portion of the cost could be valued based on the cost of short-term purchases, or by selling the supply resources into the short-term market. The remaining cost of the portfolio would be the portfolio differential.

Con Edison currently has this system in place for its strategic resources, including the SCS Astoria Energy PPA: market-equivalent costs are charged through the Market Supply Cost (MSC), while the portfolio differential, positive or negative, flows through the Monthly Adjustment Clause (MAC).

If the market prices are high in a particular year, the portfolio differential would be a net credit to all customers, whether they are supplied by PSS or a competitive supplier. If market prices are low, the portfolio differential would be a charge to customers. Thus, the long-term portfolio would have the direct effect of stabilizing total power-supply costs for all customers.⁸ All power consumers in the service territory would share the risks and rewards of the long term contracts.

Con Edison Resources for Power Supply Services

Con Edison currently has about 3,600 MW under medium- and long-term contracts, as shown in Table 1. Of these, all are gas-fired, except for Indian Point, which is nuclear, and all are for both energy and capacity, except for Independence, which is for capacity only. Con Edison also owns nearly 700 MW of capacity, all in Zone J.

⁸In addition, the new resources brought on-line in response to various RFPs will ensure adequate supply and help avoid price spikes due to capacity shortages and excessive reliance on natural gas or any other fuel.

Table 1. Con Edison Supply Contracts

Contracted Zone Output (MW) **Contract Ends** С Independence 740 Nov. 2014 Linden Cogeneration J 645 May 2017 Astoria Energy J 500 Mar. 2016 F Selkirk 265 Sep. 2014 Nov. 2036 Brooklyn Navy Yard J 286 F Indeck Corinth Jul. 2015 128 Н Apr. 2009 Wheelabrator 51 Н Indian Point 1,000 Declines April of 2006 and 2008, ends April 09

The owned and contracted resources provide a minority of Con Edison's required energy supplies for Zone J, as shown in Table 2. Con Edison currently has mid- and long-term supplies sufficient for about 70% of its PSS load, and 45% of total non-NYPA requirements in Zone J.⁹

Table 2. Con Edison Contract Energy Supply and Requirements (GWh)

	2006	2007	2008	2009	2010	2011
Zone J Energy Supply						
ConEd Owned Generation	3,600	3,600	3,600	3,600	3,600	3,600
Contracts	7,800	9,700	9,700	9,700	9,700	9,700
Upstate Energy Supply						
Indian Point	5,600	4,900	2,700	1,900	500	_
Contracts	3,400	3,400	3,400	3,300	3,000	3,000
Energy Load						
Sales requirements	27,300	27,800	28,300	28,800	29,300	29,800
Sales Plus ESCos	42,900	43,700	44,600	45,300	46,100	46,900
Total ConEd Energy Loads						
ConEd Sales	30,300	30,900	31,500	32,000	32,600	33,100
Sales Plus ESCos	47,700	48,600	49,500	50,400	51,300	52,200
Zone J Supplies						
as % ConEd Sales	42%	48%	47%	46%	45%	45%
as % Sales + ESCos	27%	30%	30%	29%	29%	28%
Total ConEd Supplies						
as % ConEd Sales	67%	70%	61%	58%	52%	49%
as % Sales + ESCos	43%	44%	39%	37%	33%	31%

⁹Since the contracts mitigate cost variations for all non-NYPA sales, the lower percentage is more relevant here.

An integrated-resource-management process will be required to determine whether the current amount and mix of long- and short-term resources is adequate to moderate volatility and optimize overall prices by attracting new entrants; the Zone J supply in particular is marginal. If Con Edison does not enter into new contracts, the percentages will decline by about a quarter over the next few years, as sales grow and supply declines with the phase-out of the contract with Entergy for power from the Indian Point Energy Center. By 2010 or 2011, additional long-term contracts would probably be justified to increase the price stability of Con Edison's PSS portfolio.

Long-term contracts supply roughly half of Con Edison's Zone J PSS requirements, but only about 30% of total Zone J non-NYPA requirements. Additional mid- to long-term contracts may be justified in the near term, to stabilize energy costs in the City, which often move independently of upstate prices. Adding energy contracts in Zone J can also help with long-term power-planning problems in the City.

The need for stable mid- or long-term capacity in Zone J is even more pressing than the need for energy. Con Edison currently has mid- and long-term capacity resources sufficient for about 38% of its PSS load, and 24% of total non-NYPA requirements in Zone J, as shown in Table 3. On the other hand, NYPA plans to have essentially all of its UCAP requirements met by owned capacity or long-term contracts, considering new resources currently being procured to replace the anticipated retirement of Old Poletti.

Table 3. Con Edison Zone J Capacity Contracts and Requirements

	2006	2007	2008	2009	2010	2011
ConEd Owned Generation	693	693	693	693	693	693
Contracts	1,493	1,493	1,493	1,493	1,493	1,493
Zone J Capacity Requirements						
ConEd Load	5,825	6,070	6,158	6,247	6,336	6,414
ConEd Load Plus ESCos	9,170	9,554	9,694	9,834	9,973	10,097
Long-Term-Capacity Supply						
as % ConEd Req	38%	36%	35%	35%	35%	34%
as % ConEd Plus ESCos	24%	23%	23%	22%	22%	22%

Con Edison Resource Needs for Regional Supply Improvement

As discussed in the NYISO Comprehensive Reliability Plan, Southeastern New York (SENY, *i.e.*, the lower Hudson Valley and areas south) will need system reinforcements equivalent to 1,250 MW of electric capacity resources by the end of 2010 and 2,250 MW of new resources by 2015. Some of these needs affect multiple utilities (Con Edison, Orange & Rockland, Central Hudson Gas & Electric, and the Long Island Power

¹⁰The Comprehensive Reliability Plan 2005: A Long-term Reliability Assessment of New York's Power System, NY ISO, August 22, 2006, pp. 19–20.

Authority, as well as parts of New York State Electric and Gas and NYPA loads), and the solution should reasonably be spread across those utilities. A number of these utilities—Con Edison, NYPA and LIPA—have already made commitments to bring on new resources. The SENY regional process should develop plans for relieving the regional problems, as well as the allocation of implementation responsibility among the utilities.

Even were the emerging regional supply problems for SENY resolved, so that service in Zones G, H, and I were sufficient for minimum reliability requirements, NYPA were to fully replace Poletti with new resources, and LIPA were to bring in enough new generation and transmission to meet Zone-K needs, Zone J would still need resources between 2011 and 2015, to maintain reliability, and reduce emissions and fuel use, and moderate market energy prices and volatility. The IRM process should identify the timing of the need for additional Zone-J resources, the preferred characteristics of resources, and the appropriate procurement mechanism.

Bringing online additional resources in Zone J under 5–15 year contracts would assist in resolving the regional supply problems, as well as moderating volatility in future PSS energy and capacity prices. New resources in Zone J will be much cleaner than existing marginal generation (both in conventional pollutants and in greenhouse gases) because of vastly superior emission-control technology and better thermal efficiency.

While any new resources in the City would be helpful, resources connected electrically to certain parts of the transmission system may be much more valuable than resources connected to other parts, even within Zone J. For example, additional generation at Arthur Kill would potentially be limited to Staten Island and unable to deliver power to the rest of the City, unless the transmission system across Staten Island and Brooklyn were to be significantly reinforced.¹¹

The Integrated-Resource-Management Planning Process

In the absence of some form of integrated portfolio management, the following important goals for the energy sector are not being addressed:

- lowering prices and price volatility;
- reducing air emissions of regional pollutants (SO₂, NOx, and particulates);
- reducing greenhouse-gas emissions;¹²

¹¹The City would encourage the IRM planning-and-acquisition process to consider combined generation and transmission solutions; lower siting costs at a more remote location may compensate for the higher transmission costs.

¹²For example, the California PUC requires that regulated utilities include in their resource evaluations a carbon adder of \$8/ton CO₂, escalating at 5% per year.

- respecting local land-use priorities,
- supporting the local subtransmission and distribution systems,
- increasing renewable resources,
- maintaining reliability and diversity of fuel supply;
- balancing transmission and generation investments;
- making the best use of the few remaining power-plant sites in the City, including space available at existing power plants;
- relieving constraints on the gas supply network serving the City.

These important issues can be best addressed by instituting a process for planning and procuring generation and transmission, with important roles played by the transmission owners and public agencies.

Since restructuring, the transmission-owning utilities, which formerly conducted integrated resource planning, have largely limited their concerns to reliability. NYISO only considers reliability in its planning process, effectively excluding economic and environmental concerns. This perspective results in large part from the ISO's governance structure, which requires a supermajority of 58% for action. The competing interests of incumbent generators, potential new entrants, transmission owners, load-serving entities, and other parties effectively limits the ability of the NYISO to form a consensus necessary to address economic planning.

The requisite planning expertise is largely retained by the utilities, particularly in load forecasting, transmission planning and modeling. Con Edison (or NYPA) has the capability to assess the technical tradeoffs between inter-regional transmission and in-City generation, and to consider the effects of various resources on the constrained gas supply to the City. Con Edison has also been involved in the use of targeted energy efficiency and distributed generation to relieve distribution and transmission constraints.

To help ensure that the utility planning process reflects regional objectives for the energy sector, and to facilitate the PSC's review of the IRM plan, the process could be guided by a planning board. In the case of Con Edison, such a board might include the City of New York, NYSERDA, and NYPA. NYISO can also play an important role, in particular planning for inter-regional transmission between ISOs and working out appropriate mechanisms for transmission cost sharing.

The Integrated-Resource-Management Procurement Process

For the purposes of price stability, New York State should move toward a system of competitive RFPs for overlapping power supply. Most systems in other states (e.g., New

Jersey, Massachusetts, Maryland) provide no long-term benefits, as the purchases are typically only for one to three years. Connecticut has moved toward a hybrid system in which all resources are competitively procured, with some power obtained in three-year full-requirements contracts while strategic supplies are procured through RFPs for long-term resources.

The New York Power Authority has similarly moved toward long-term procurement of power for its southeast New York governmental customers, including the City of New York. Another good example is LIPA, which prepares a resource plan based on its own set of objectives and acts as the single buyer on behalf of all retail customers on Long Island.

Each utility should procure adequate long-term resources for their own customers, plus some of the customer base served by ESCos. The ESCos cannot offer long-term contracts to bring resources on line, but they can buy power from the resources once the utility has brought them online. There is no inherent reason why long term procurement cannot be reconciled with retail access goals.

If a particular utility is unable or unwilling to undertake the procurement role, the State should consider using a public agency to take title to power from developers and flow through the power and the costs to the utilities. That agency could be the New York Power Authority for statewide resources, and local power authorities or other entities to be developed for local resources.

Utilities should also be allowed, and even required, to build transmission and/or generation to meet local supply requirements, if that would be the least-cost solution.

Special Issues for Zone J and Con Edison

Zone J presents a special set of supply issues. Transmission capacity into the City is limited and expensive to expand. As a result, the owners of the existing plants divested by Con Edison have a captive market. While those plants have relatively low efficiencies and high emission rates, they also have advantages that are grandfathered and no longer available to new plants: once-through cooling systems and the use of heavy fuel oil. The inefficient boiler plants and combustion turbines typically set the in-City market energy-clearing prices.

No new merchant generators have entered the Zone J market. The only merchant plant that has been built in the City is the 250-MW combined-cycle unit built by KeySpan at its existing Ravenswood plant, and as noted below in fn.15, unique factors may have influenced that decision.

According to the NYISO's Comprehensive Reliability Plan 2005, market driven solutions and updated project plans by transmission owners are expected to maintain reliability in

southeast New York through 2010. However, it is now time to plan for the next phase of development considering the time required to develop an integrated plan, conduct any required RFPs, and build new resources.

Table 4 shows capacity supply and demand projections for Zone J. The current in-City capacity is 10,274 MW, about 1,000 MW more than the 9,300 MW of in-City capacity currently required by the locational requirements for Zone J developed by the NYISO in cooperation with the New York State Reliability Council.

At the growth rates projected in the 2006 Gold Book, the existing capacity will be adequate until 2012, but NYPA is currently committed to retire the 888-MW Poletti unit by 2010, leaving Zone J short by about 600 MW. Even with the resources NYPA procures in its RFP #4, Zone J will need additional capacity by 2010.

Table 4. Zone J Load and Capacity Projections (MW)

Capacity Surplus, Including Special-Case Resources

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	Summer Peak	Zone J Requirement	Existing	Without Poletti
2006	11,630	9,304	970	
2007	11,800	9,440	834	
2008	11,970	9,576	698	(362)
2009	12,140	9,712	667	(498)
2010	12,290	9,832		(618)
2011	12,440	9,952		(738)
2012	12,570	10,056		(842)
2013	12,705	10,164		(950)
2014	12,815	10,252		(1,038)
2015	12,925	10,340		(1,126)
2016	13,003	10,402		(1,188)

Source: Load from 2006 Gold Book, capacity from CRP, Table 7.2

The energy-market-clearing prices for energy in Zone J are very high, set by the high-cost in-City plants. In 2005, the all-hours market price of power (including capacity and energy) in Zone J was \$110/MWh, compared to \$88/MWh in the Hudson Valley and \$72/MWh in PJM PSEG-North. At such high market-clearing prices, the savings to Zone J consumers for new resource additions would be great, due to the reduction in the power bill from the NYISO.

Hence, New York City requires resource additions both for reliability of supply and to reduce the cost and volatility of energy payments to the NYISO.

Difficulty of Adding New Resources in Zone J

One of the potential benefits of restructuring, as originally envisioned, was that the risks of power-plant ownership—construction costs, operating costs, outages, delays, environmental requirements and capital additions—would be borne by plant developers rather than utilities and ratepayers. The current system does indeed transfer these risks to developers, but two additional risks fall heavily on ratepayers. First, there is the risk that developers will just not build the resources that customers need. Second, short-term contracts leave ratepayers with the risk of high market prices.¹³

The reality is that merchants are not entering the Zone J market, notwithstanding the extravagant claims made by the proponents of the Demand Curve that the NYISO implemented in early 2003.¹⁴ Even after three and a half years, the higher prices set under the Demand Curve have failed as incentives for new entrants, and its very significant attendant costs have been borne by consumers without any demonstrable benefits.

Merchant Generation in Zone J

Despite very high market clearing prices, the only merchant power plant built in Zone J is KeySpan's Ravenswood combined-cycle unit. ¹⁵ That result is not surprising, since the existing generators own some of the best properties—the existing plant sites—for construction of new generators. These properties have transmission access, gas supply, appropriate zoning, and neighbors accustomed to the presence of generating plants. There are few, if any, vacant industrial properties where a new entrant could build a power plant in New York City, due to the general shortage of real estate, local opposition, and competition for other land uses.

The three principal existing merchant generators in Zone J—US Power Generating, KeySpan, and NRG—have little incentive to expand capacity on a merchant basis, as any capacity added to the market would reduce the price received for their existing generation or capacity, or affect the amount of capacity they would need to withhold to maintain current prices. However, these companies most likely would respond to the opportunity to sign a long-term PPA tied to a capacity addition.

¹³Ironically, limiting utilities to short-term purchases leaves the developers with the risks of low market prices, discouraging new entry and keeping market prices high. And the short-term purchases pass those high market prices on to consumers.

¹⁴New York Independent System Operator, Inc., <u>Order Conditionally Accepting Tariff Revisions</u> 103 FERC ¶61,201 (May 2003)

¹⁵This unit was added prior to the implementation of the demand curve to artificially raise capacity prices. KeySpan's decision to pursue this plant may have been based on the expectation that it would eventually sign a contract with Con Edison for steam sales from the combined-cycle unit. KeySpan has expressed interest in making such sales.

NRG and its predecessors have proposed to repower Astoria since at least 2001 (when the new resources were expected to come on line in 2003 through 2005). The 2005 Gold Book listed the Astoria repowering for completion in 2010 and 2011; the repowering is not listed in the 2006 Gold Book at all.

In a recent press release, NRG has announced new plans for 200-400 gross MW of capacity at Astoria in 2008–2010. The press release quotes Robert Flexon, NRG's Executive Vice President and Chief Financial Officer: "Investments will be underpinned by long-term off-take contracts and hedges that support non-recourse project financing as well as third party equity partners and the Company's existing cash flows." The press release also states that "NRG intends to contract at least 70 percent of its new output through power purchase agreements, bilateral contracts or hedges with financial firms." and "NRG expects to contract substantially all of its development projects in the Northeast through state administered processes. The contracts will range up to 20 years in length."

The importance of PPAs for developers is also demonstrated by Calpine, which has proposed a 45-MW expansion of its Kennedy International Airport plant since 2003. Each year, the unit has been scheduled for the current year or the next year, but it appears to be on hold, presumably pending a power contract. Calpine is also in the midst of a protracted bankruptcy proceeding that restricts greatly its ability to develop new resources without long-term customer commitments.

These examples and others suggest that most if not all of existing generators are unable or unwilling to build without a long-term contract. The same is true for projects proposed for new sites, such as the Bay Energy combustion turbine, the NYC Energy combustion turbine at Kent Avenue, and the two combustion turbines that Fortistar has proposed for Staten Island each year since 2003. Again, the additions are consistently projected a year or so into the future, but keep getting delayed.

Merchant Transmission to Zone J

No merchant transmission has been developed in the United States. It does not appear that the NYISO or other regional bodies have developed a market mechanism for reimbursing developers of alternating-current transmission, even in theory. In principle, a developer could build a direct-current transmission line and recover its costs from the sale of rights to market participants. Since the value of the line would depend on the difference in prices between the two transmission zones the line would connect, that is a high-risk investment that no developer has undertaken.

¹⁶"NRG Announces Comprehensive Repowering Initiative," press release, June 21, 2006.

As with generation, several transmission projects have been proposed by developers, but have failed due to lack of a long-term contract. These include the following projects from PJM, upstate New York, and Canada and New England:

- TransEnergie proposed a 660-MW high-voltage DC line from PJM to West 49th Street or Farragut.
- PG&E Liberty Generating proposed a similar project.
- Neptune's Phase-1 Project would have provided 600–750 MW of DC transmission capacity from the Linden substation in New Jersey to Con Edison's West 49th Street substation, and a similar amount from the Sayreville substation in New Jersey to Consolidated Edison's West 49th Street or Farragut substation.
- Conjunction LLC proposed the Empire Connection project to carry up to 2,000
 MW of power from the Albany area to New York City.
- Neptune also proposed 1,500 MW of DC transmission capacity from Colson Cove (New Brunswick) to Manhattan, with additional connections in New England.
- The Pegasus Niagara Reinforcement Interconnection would have provided about 1,200 MW of capacity from the Marcy area to Zone J.

Transmission into Zone J, and some other parts of New York, can be difficult and expensive, due to siting requirements, the high costs of working in narrow urban transmission corridors, and difficulty in siting HVDC terminals in urban areas. These factors have contributed to New York's failure to add net inter-regional transmission for more than 20 years.¹⁷

There is now a growing consensus in the industry that new transmission lines will require either regulated cost recovery or some form of long-term contract. New York Regional Interconnect and National Grid have submitted transmission proposals to the NYISO to expand the transfer capability of the constrained UPNY-SENY interface, but only on a traditional regulated cost recovery basis. In contrast, long-term contracts with LIPA have resulted in the completion and operation of TransEnergie's Cross-Sound Cable and the beginning of construction of the Neptune line from New Jersey. The developers continue

¹⁷Con Edison is seeking to build the M-29 transmission line from Sprainbrook to Sherman Creek, to compensate for the loss of transfer capacity from upstate, and is currently in the PSL Article VII process for approval of the project (PSC Case No. 06-T-0710).

¹⁸See, e.g., <u>FERC Conditional Order in Docket No. EL06-50-000</u>, <u>AEP Request for Declaratory Order Approving Rate Incentives for 765 kV Transmission Project</u> (July 20, 2006). FERC simultaneously issued a <u>Final Rule on Promoting Transmission Investment through Pricing Reform</u>, Docket No. RM-06-4-000, Order No. 679 (July 20, 2006).

to bear cost and performance risks, while LIPA's customers have access to less-expensive capacity and energy from other regions at fixed prices.

Market Power

One factor currently impeding the operation of a merchant market in Zone J is the market power of the three major in-City generators. Market power allows those generators to maintain market prices above competitive levels and discourages them from adding capacity that might dilute their market power.

In-City merchant generators have significant market power. The U.S. Department of Justice considers a market with a Herfindahl-Hirschman Index (HHI) of less than 1,000 to be a competitive marketplace, an HHI of 1,000-1,800 to be a moderately concentrated marketplace, and an HHI of 1,800 or greater to be a highly concentrated marketplace. The capacity market in Zone J has an HHI of over 2,000, and is therefore highly concentrated. In addition, as NYPA's capacity is largely committed to serve its load in Zone J, the true concentration of capacity available to the market is even greater than this HHI computation suggests.

Table 5. Computation of Zone J Herfindahl-Hirschman Index

NYISO Billing Organization	Summer Capacity (MW) ^a	Percent of Capacity	Percent Squared
Astoria Generating Company	2,121	21.2	447
Calpine Energy Service	117	1.2	1
Consolidated Edison	2,184	21.8	475
KeySpan Ravenswood	2,382	23.8	565
New York Power Authority	1,789	17.8	318
NRG Power	1,433	14.3	204
Total	10,025	100.0	2,011

^a2006 Gold Book, plus SCS Astoria Energy

Each of the three large merchant generators is pivotal; unless Zone J has at least 1,433 MW of capacity in excess of the 80% in-City requirement, the market cannot clear without the participation of all of them. Hence, any one of them can set the price above the level that would be the market-clearing price if all capacity were to be bid in at prices intended to clear in a market not subject to distortion. They have every financial incentive to do so and, as both the DPS Staff and the NYISO have recently found, there has been

^{19 &}quot;Horizontal Merger Guidelines," U.S. Department of Justice and Federal Trade Commission, revised April 8, 1997. The Herfindahl-Hirschman Index is the sum of the squares of the capacity ownerships, as percents of total capacity, of all the power producers.

economic withholding in the capacity market by the pivotal bidders, causing capacity prices to be artificially high. The economic withholding in summer 2006 led to a capacity market mitigation proposal that was approved by the NYISO Management Committee in September 2006.²⁰

The generators are required to bid all their capacity into the NYISO capacity auctions, but they can bid capacity at any price from \$0/kW to their mandated price caps. In a fully competitive market, each bidder would bid in all its capacity at a price expected to result in sale of the capacity. The three pivotal bidders, in contrast, can keep prices up by bidding in capacity at their cap prices, forcing the market to clear at the cap.

As the following table for Summer 2006 shows, each of the pivotal bidders (with about 2,000 MW of capacity) increases its capacity revenue by withholding capacity; collectively, they can maximize their revenue by withholding capacity until only about 9,300 MW are sold, at which point the price will clear near their respective bid caps.

Table 6. Summer Monthly ICAP Revenues as a Function of Capacity Withheld (Thousands of Dollars)

	One 2,000 MW Bidder		MW Bidder Big Three 5,500 MW	
Zone J ICAP	10,000	10,500	10,000	10,500
MW not sold				
100	\$16,300	\$7,700	\$40,700	\$19,300
200	\$17,100	\$8,900	\$44,100	\$23,100
300	\$17,800	\$10,000	\$47,300	\$26,700
400	\$18,200	\$10,900	\$50,400	\$30,200
500	\$18,500	\$11,700	\$53,300	\$33,500
600	\$18,700	\$12,200	\$56,000	\$36,600
700		\$12,600	\$58,500	\$39,600
800		\$12,800	\$60,900	\$42,400
900		\$12,900		\$45,000
1,000				\$49,700
1,100				\$51,900

Source: Summer Demand Curve and Capacity

The competitive market is not working well in Zone J due to the continuing existence of market power. Individually and collectively, the large generators can dramatically affect the capacity and energy markets, and also control most of the best sites for new generation. The distortions in the purportedly competitive market overwhelmingly favor

²⁰ See Letter of NYISO President Mark S. Lynch to Susan Court, Esq., Director, FERC Office of Enforcement (June 7, 2006); "In-City Capacity Market Performance," discussion presentation by NYSDPS, at NYISO stakeholder meeting of the ICAP Working Group (June 12, 2006)

the incumbent generators. Bringing new resources online through long-term contracts would level the playing field, restoring some equity between consumers and generators.

In the case of KeySpan, its status as a pivotal capacity bidder has also been exacerbated by the company's use of a contractual arrangement to financially purchase 1,800 MW of capacity in the New York City market for a period of three years at a fixed price of \$7.57 per kW-month.²¹ When coupled with its ownership of the largest in-City generation facility, this gives KeySpan a direct or indirect stake in some 4250 MW of capacity, and a significant interest in higher capacity prices.

One area in which the interests of the divested generation owners and consumers may agree is lifting the prohibition on bilateral contracts for divested generation owners. While there were originally concerns that the divested generation would be reconsolidated through bilateral contracts, the current prohibition on contracts prohibits risk-reducing contracts with load-serving entities as much as any potential market abuse. The City of New York would be inclined to support rules under which the divested-generation owners could sign bilateral contracts with load-serving entities and with other market participants, subject to reporting requirements and other appropriate limits on reconcentration of market power.²² The Commission might consider seeking to lift the prohibition on bilateral contracts, if appropriate safeguards can be developed, as an essential part of developing an overall portfolio management solution for the SENY market.

Recovery of Strategic Resource Costs

Recoverability

Utilities, if expected to move the market, must be given appropriate performance incentives and adequate assurance of cost recovery for the planning and procurement of strategic resources. Any utility that undertakes integrated resource management in good faith, following guidelines developed by the Commission or other supervisory organizations, should be entitled to expect full recovery of its costs.

Con Edison previously requested that the Commission provide a full guarantee of cost recovery for payments for energy and capacity that the utility planned to purchase

²¹Securities & Exchange Commission Form 8-K filed by KeySpan Corporation, Accession Number 0001062379-06-000054, p. 9 (May 4, 2006).

²² The original concern over bilaterals was apparently that they might provide a means to circumvent the bid cap of \$105/kW-year in the Zone J capacity market. See 84 FERC ¶61,287, Order Accepting Market Power Mitigation Measures As Modified (issued September 22, 2006)

following the issuance of an RFP, and its entry into a subsequent contract. This process, as noted above, ultimately led to the expeditious construction of the 500 MW Astoria Energy power plant. The PSC declined to provide that absolute guarantee, but otherwise encouraged Con Edison to proceed with the RFP.²³ The City of New York agrees that the PSC cannot offer any utility absolute assurance of cost recovery for future actions, but the Commission should clearly establish that the costs of reasonable commitments will be recovered, and that questions of prudence should properly be judged on the basis of the facts known at the time of entry into such contracts. The standard for denying cost recovery should be very high. In particular, the Commission should clearly establish that the recovery of contract costs is independent of actual market costs over the life of a long-term contract; a reasonable commitment remains reasonable, even if economic conditions change after the fact.

To increase the utilities' assurance of cost recovery, the Commission should provide clear direction and provide for oversight of the IRM process by its staff and other interested and competent customer parties. If the interested customer parties are involved from the beginning, and they are able to support the utility's filings, the Commission will be better able to give the strong assurances the utilities seek.

The Commission should also consider whether the contract commitments are likely to affect a utility's credit rating.²⁴ If that appears to be the case, the Commission should work with the utility to develop appropriate mechanisms to protect the company. Alternatively, the State and the City of New York can consider the use of public agencies, such as power authorities or other special-purpose entities, to contract with developers and charge customers directly, with the utility acting only as a billing agent.

Recovery Mechanisms

Long-term fixed-price power contracts for PSS supply complicate the coordination of cost recovery with facilitation of the competitive market. Competitive suppliers are likely to offer customers power priced to reflect the wholesale market prices over the next quarter, year, or whatever period the customer is likely to stay with the supplier. If PSS is priced on a mix of short-term market prices and longer-term contracts, the PSS price will sometimes be higher than the competitive offers and sometimes lower. When the PSS price is below the prevailing market price, customers would tend to stay with, or switch back to, PSS service. If the contract prices result in a PSS price that is higher than the market price, customers would tend to leave the PSS for lower retail offers.

²³See <u>Declaratory Ruling on Cost Recovery</u>, PSC Case No. 02-E-1656 (issued January 24, 2003).

²⁴The Connecticut DPUC recently found that similar long-term purchased-power contracts would not affect utility credit ratings (DPUC Docket No. 05-07-18).

The possibility of the PSS deviating significantly from the market prices creates the following four potential problems.

- Stability of the PSS: If the market price declines (compared to earlier expectations), the PSS price may be greater than that competitive bidders would offer, resulting in migration from PSS to competitors. The short-term full-requirements purchases would automatically shrink as the PSS requirements decline, and the utility could let some mid-term contracts expire without replacement so the PSS would not be burdened with excessive supplies of power. But as PSS sales fall, the above-market costs of the longer-term contracts would be spread over smaller volumes of sales, requiring higher prices and promoting more migration. Unless customers are prohibited from leaving PSS, the entire mechanism for paying the PSS contracts may be undermined.
- **Stability of competition:** On the other hand, if the market price rises more than expected, the stable prices of the mid- and long-term contracts in the PSS portfolio will tend to keep the PSS price well below market. Competitive suppliers would not be able to match those prices, and retail competition would be limited until market prices came back into line with the portfolio.
- **Higher prices for full-requirements supply**: If the bidders on the short-term full-requirements supplies know that the PSS price may diverge significantly from the market, they may build into their prices the risks of (1) dumping large amounts of power into a weak market, if market prices fall and load migrates to competitive suppliers and (2) buying large amounts of power from an expensive market, if market prices rise and load returns to PSS. That risk premium could raise PSS prices.
- Gaming by large customers: As PSS prices rise above competitive offers, large customers will quickly migrate to the competitors. As PSS prices become economic, the large customers will return. Small customers are likely to respond more slowly, due to higher transaction costs. So small customers may bear more of the costs of any periods that PSS is above market, while getting less of the benefits when PSS is below market. Further limiting the rights of customers to switch would moderate this problem, but also interfere with competition.

The best way to avoid these potential problems is to set the PSS rates to reflect market conditions and recover any difference between the market value and the portfolio cost from all customers. If the market prices are high in a particular year, the portfolio differential would be a net credit to all customers, whether they are supplied by PSS or a competitive supplier. If market prices are low, the portfolio differential would be a charge to customers. Thus, the long-term portfolio would have the direct effect of stabilizing total rates for all customers. In addition, the new resources brought on-line as part of the

PSS portfolio would ensure adequate supply, and help avoid price spikes due to capacity shortages and excessive reliance on natural gas or any other fuel.

Conclusion

For all the reasons described herein, the City of New York believes that the State needs a new model for power supply by utilities. This is particularly true in Zone J, but it will have application in other areas of the State as well. As the Commission has implicitly suggested in initiating this proceeding, it is time to examine the limitations of the pure merchant approach, which in reality has produced virtually no new market entrants in the realm of generation and transmission.

Moreover, there is nothing inherently inconsistent between the operation of a competitive marketplace and the use of contracts of various lengths and an integrated commodity portfolio. And while the logical locus of such portfolio management effort is in regulated utilities, there are other options, as the foregoing analysis describes. These would include existing entities such as NYPA, or a new entity to be formed, and that could act as a planning board and work cooperatively with the utilities' whose specialized expertise will clearly be critical to the success of any such project. The comprehensive regulatory role of the Commission would be retained, as would the market-making role of the NYISO. Ultimately, a varied mix of resources, including long-term contracts, offers the best prospect of ensuring that we will have adequate energy supplies in the future.

Dated: November 17, 2006 Respectfully submitted,

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