UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.) Docket No. EL07-39-000

REPLY COMMENTS OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

In compliance with the Commission's July 6, 2007 order in the above-captioned proceeding[1] and the Notice of Extension of Time issued by the Commission on December 10, 2007 in this docket, the New York Independent System Operator, Inc. ("NYISO") respectfully submits this reply to the comments on its October 4, 2007 proposal in this docket ("Oct. 4 Filing") for revised rules for New York City ("NYC") Installed Capacity ("ICAP") market.[2] The Oct. 4 Filing proposed retaining the existing ICAP market structure, including the current set of ICAP auctions and the use of ICAP Demand Curves, but refining the mitigation measures for the NYC Locality to prevent the exercise of market power to artificially raise or lower auction clearing prices.

After carefully considering the comments on its Oct. 4 filing, the NYISO remains convinced that, with the refinements discussed in these reply comments, its proposal balances the Commission's goals of ensuring that sufficient incentives are in place to attract investment in new capacity resources when it is needed and retain economic existing resources, while at the same time providing appropriate compensation to resource owners. In support of its

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[1] *New York Independent System Operator, Inc.*, 120 FERC ¶ 61,024 at P 15 (2007) ("July 6 Order").

[2] Unless otherwise specified, capitalized terms have the meanings specified in the NYISO's Market Administration and Control Area Services Tariff ("Services Tariff").

proposal, the NYISO has appended to this filing a supplemental affidavit by Dr. David B. Patton of Potomac Economics, Ltd., the NYISO's independent Market Advisor.[3]

I. Background

The facts and circumstances giving rise to the Oct. 4 Filing are described in detail in the filing. While that description will not be repeated here, in considering the comments on the Oct. 4 Filing the Commission should keep in mind the historical and procedural context in which it arises. The principle features of the NYC ICAP market are the product of a long series of stakeholder and regulatory procedures extending back at least as far as the divestiture of generation by the Consolidated Edison Co. of New York, Inc., prior to the formation of the NYISO, the development of the initial NYISO capacity markets, and the implementation and periodic resetting of the ICAP Demand Curves. While it may now be appropriate to revisit the market power mitigation measures for the NYC ICAP market, the effort and wisdom underlying other features of that market should be recognized.

Comments were filed by Astoria Generating Company, L.P. ("Astoria Generating") (supported by an affidavit from Mark D. Younger), City of New York ("New York City"), Consolidated Edison Company of New York, Inc. and Orange & Rockland Utilities, Inc. (collectively "ConEd") (supported by affidavits from Peter Cramton and Stuart Nachmias), Consumer Power Advocates, Dynegy Northeast Generation, Inc. & Coral Power, L.L.C. ("Dynegy/Coral"), East Coast Power, L.L.C. ("East Coast Power"), Energy Curtailment Specialists, Inc., Entergy Nuclear Power Marketing, LLC & the Mirant Parties ("Entergy Nuclear/Mirant") (supported by an affidavit from Roy J. Shanker), FPL Energy, LLC, Hudson Transmission Partners, LLC ("Hudson Transmission Partners"), Independent Power Producers

[3] Dr. Patton's affidavit in support of these Reply Comments will be referred to as "Patton 2nd Aff."). Dr. Patton's affidavit in support of the Oct. 4 Filing will be referred to as "Patton 1st Aff.").

of New York, Inc. ("IPPNY"), KeySpan-Ravenswood. LLC ("KeySpan") (supported by an affidavit from William H. Hieronymus), Long Island Power Authority and Long Island Lighting Company d/b/a LIPA (collectively "LIPA"), Multiple Intervenors, New York Power Authority ("NYPA"), New York Consumer Protection Board ("NY Consumer Protection Board"), New York Public Service Commission ("NY Public Service Commission") (supported by an affidavit from Thomas S. Paynter), New York Transmission Owners, NRG Companies ("NRG") (supported by affidavits from Robert D. Willig, A. Joseph Cavicchi and W. Lee Davis), and Webenergy.net, Inc. d/b/a ConsumerPowerline.

In the time available, it is not possible to respond to every argument made in all of the comments, which comprise over 800 pages. The fact that the NYISO has not responded to a particular argument should not necessarily be construed as NYISO's agreement with it. Instead, these reply comments focus on a limited set of issues of particular concern to the NYISO.

II. Relation of the NYISO Proposal to the ICAP Demand Curves and Forward Market Design

As pointed out in the Oct. 4 Filing, an important factor in the operation of the NYC ICAP market is the ICAP Demand Curve for New York City used in the ICAP Spot Market Auction. A number of commenters seek to raise issues about the parameters of the NYC ICAP Demand Curve. For example, Dr. Hieronymus in his affidavit submitted on behalf of KeySpan makes a number of assertions going to the specific features of the demand curve,[4] and Dr. Willig in his affidavit submitted on behalf of NRG appears to question the use of demand curves in the first place, and attacks a number of features of the demand curves.[5]

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[4] KeySpan at 4-5, 8, Hieronymus Aff. at 14-15.

[5] Willig Aff. ¶ 37.

The NYISO respectfully submits that the use of ICAP Demand Curves, and the specific parameters of the curve for the in-City market, should not be decided in this docket. As the Commission is aware, the NYISO recently filed the results of a comprehensive review process to update the ICAP Demand Curves in Docket No. ER08-283-000.[6] Any issues as to the parameters of the New York City demand curve need to be resolved in that docket, where they can be considered on the basis of a fully developed record of the relevant facts and expert analyses, and in the context of the NYCA and Long Island demand curves, which are not at issue here. As the Commission stated in its March 28, 2007 Order Denying Request for Clarification or Rehearing in this docket, the initiation of the paper hearing proceedings in this docket "does not mean . . . that the ongoing stakeholder processes should be postponed or discouraged in any way."[7]

The Oct. 4 Filing noted that the NYISO's proposal in this docket presumes that the demand curves are set at appropriate levels, and achieving that result can and should be accomplished in that docket. Correspondingly, as stated in the NYISO's recent filing of new ICAP Demand Curves in ER08-283, the demand curves assume that appropriate mitigation measures will be established in this docket. Thus, Dr. Hieronymus's assertion that "the NYISO's position is circular and tautological" has it backwards.[8] It is resolving the ICAP Demand Curve parameters and the appropriate mitigation measures in both proceedings that will result in an endless circular loop in which neither set of issues gets resolved, to the detriment of the on-going auctions in New York City and the rest of the state.

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[6] *New York Independent Transmission System Operator, Inc.*, Tariff Revisions to Implement Revised ICAP Demand Curves for Capability Years 2008/2009, 2009/2010 and 2010/2011, Docket No. ER08-283-000 (Nov. 30, 2007).

[7] *New York Independent System Operator, Inc.*, 118 FERC ¶ 61,251 at P4 (2007).

[8] Hieronymus Aff. at 5.

More fundamentally, the use of the sloped ICAP Demand Curves has been approved in several Commission decisions,[9] has passed review by the U.S. Court of Appeals for the District of Columbia Circuit, [10] and should not now be subject to question. Whatever may be the views of Drs. Willig and Hieronymus or others about the theoretical basis for the demand curves, those issues have been resolved in favor of the use of the demand curves in the New York capacity markets. As Dr. Willig acknowledges, "the NYISO's locational demand curve capacity compensation system has substantially improved capacity pricing in New York relative to what came before . . . ,"[11] and there are no fully developed proposals to operate the New York City capacity market on some other basis. As Dr. Patton explains, the use of an administratively determined demand curve is a necessary construct until the demand side can mature to the point of being able to fully participate in the market, and the competitive benchmarks underlying the NYISO's proposal provide an economically sound basis for constructing appropriate market power mitigation measures.[12] Thus, the issues raised in the Oct. 4 Filing need to be addressed in the context of a market that operates under the NYC ICAP Demand Curve, and the Commission can make no practical assumption other than that the demand curves will be set at appropriate levels consistent with their purposes in Docket No. ER08-283-000.

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[9] *New York Independent System Operator, Inc.*, 103 FERC ¶ 61,201 (2003); *reh. den.*, 105 FERC ¶ 61,108 (2003); *New York Independent System Operator, Inc.*, 111 FERC ¶ 61,117 (2005), *reh. den.*, 112 FERC ¶ 61,283 (2005).

[10] *Electricity Consumers Resource Council v. Federal Energy Regulatory Commission*, 407 F.3d 1232 (D.C. Cir. 2005).

[11] Willig Aff. ¶ 67.

[12] Patton 2nd Aff. ¶¶ 7-8.

These same considerations govern the issues that have been raised in the comments about a potential forward market design.[13] None of the comments claim, nor could they, that there is a fully fleshed out, consensus proposal for a forward capacity market in New York, including New York City, because there is as yet no such proposal. As the NYISO stated in the Oct. 4 filing, those issues are the subject of on-going stakeholder proceedings that, like the ICAP Demand Curve proceedings, should be allowed to proceed. Moreover, those stakeholder discussions involve all interested parties in New York, not just the intervenors in this proceeding, and may result in forward markets for the state as a whole and possibly for Long Island, which is beyond the limited examination of only the New York City market in this proceeding. Comments on a party's preferred attributes of a forward market, such as those from NRG and its expert Dr. Willig,[14] belong in those stakeholder discussions, not here.

In furtherance of their advocacy of forward markets, NRG and its expert Dr. Willig in essence claim that a net cost of new entry ("CONE") determined by a competitive forward market would be preferable to the administrative determination of net CONE in setting the demand curves. Dr. Willig acknowledges, however, that a forward market proposal would have to be accompanied by effective market power mitigation measures.[15] Dr. Willig provides no specifics as to what those measures would be or how they would be implemented. Forward market results distorted by market power would not provide the competitive price signals espoused by the commenters urging the adoption of forward markets. More generally, the type of auction, whether the auction should be voluntary or mandatory, the period covered by forward commitments, the nature and extent of any reconfiguration auctions, and other

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[13] *See, e.g.*, Astoria Generating at 43; Entergy Nuclear/Mirant at 20, Shanker Aff. ¶ 74; NRG at 24 *et seq.*, Willig Aff. ¶ 14 & 66; IPPNY at 8-10.

[14] NRG at 24 *et seq.*, Willig Aff. ¶ 14 & 66.

[15] Willig Aff. at ¶ 66.

specifics of a forward market, all need to be subject to stakeholder deliberations, which are currently ongoing. Whatever the results of that process, the comments urging the adoption of forward markets beg the question of an appropriate market structure in the meantime. At present, the NYISO has proposed a balanced structure using the demand curves approved or to be approved by the Commission. The proposal is consistent with competitive principles and, as Dr. Patton stated in his affidavit in support of the Oct. 4 Filing, can readily accommodate a forward market at such time as such a market comes to fruition. As with the demand curves, questions of a forward market can and should proceed on their existing separate track from the instant docket.

III. Inclusion of Additional Costs in Going Forward Costs

The NYISO's proposal in the Oct. 4 Filing would limit supplier bids to a reference price based on a unit's net "going-forward" costs, if those costs are higher than a default reference level determined by the expected point on the NYC ICAP Demand Curve that corresponds with the level of supply. A generator's "going-forward" costs "are the costs that could be avoided if a unit is mothballed rather than being maintained as an active market participant in order to provide capacity. Examples of such avoidable costs from not supplying capacity include: labor for routine operations and maintenance; routine materials and contract services, administrative and general costs, and insurance."[16]

Some suppliers contend that they should be allowed to include a variety of capital costs as "going-forward" costs. NRG, for example, contends that the proposed mitigation may deter existing Divested Generation Owners ("DGOs") from "repowering" existing sites, or developing new sites, and thus such capital investments should be included in supplier

[16] Oct. 4 Filing at 20.

reference prices.[17] NRG appears to argue that costs of adding additional capacity at an existing site should be included as going-forward costs for the existing generation at that site.[18] Mr. Cavicchi claims that repowering of existing sites may be problematic, "as the opportunities for capacity resources to set capacity market-clearing prices are clearly articulated only in very limited circumstances."[19]

These comments seem to assume that an offer that is substantially above the default reference level would set the auction clearing price, which may not be the case. As stated by Dr. Patton:

> The market is not designed to allow for the recovery of costs that are in excess of competitive price levels. NRG seems to be assuming that allowing a reference level that substantially exceeds the default reference level will allow the generator to recover its costs by being paid that unit-specific reference level. In reality, however, the default reference level is calculated in such a manner that it should be close to the clearing price of the market. Therefore, including investment costs in a new unit's reference level (or a repowered unit's reference level) will simply allow it to offer capacity at a price that will cause it not to clear and, therefore, be paid nothing.[20]

Under this market design, a rational investor should not expect to recover its costs by simply being able to raise its offers, but should make investment decisions based on expectations of market prices.[21] This would include investment in additional capacity, such as

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[17] NRG at 11, Cavicchi Aff. at ¶¶ 12, 18 and 53, Willig Aff. at ¶ 42.

[18] See Davis Aff. ¶¶ 15-16 (describing NRG's repowering project as adding "approximately 520 MW of new efficient peaking units," and NRG plans to develop a 600 MW combined-cycle project at its Arthur Kill facility).

[19] Cavicchi Aff. ¶ 12.

[20] Patton 2nd Aff. ¶ 11.

[21] Patton 2nd Aff. ¶ 12; Patton 1st Aff. at ¶ 9 (stating that the capacity market accomplishes its objective of ensuring sufficient capacity resources "by providing long-term economic signals that supplement the signals provided by the NYISO's energy and ancillary services markets. The economic signals provided by these markets govern market participants' decisions to invest in new resources (including both supply and demand-response resources) and retire existing resources.").

repowering existing sites or developing new sites.[22] After properly analyzing its investment costs, a decision whether or not to invest in additional capacity should be based on NRG's expectations of future market prices.[23] Correspondingly, costs of investing in additional capacity are by definition unrelated to keeping existing capacity in operation, and cannot be a cost that would be avoided by mothballing or retiring existing generation. Those costs therefore do not conform to the concept of "going-forward" costs.

Similarly, the assertion by KeySpan that it should be able to include certain capital costs in the first MW from a unit makes little sense.[24] If all such costs were put on 1 MW of a 200 MW unit, the market would simply take the other 199 MW offered at a lower price.[25] Thus, the costs posited by KeySpan would be avoidable only if it shut down the whole unit, and do not belong in "going forward" costs.

Likewise, pollution control equipment[26] that has already been installed on a plant would be a sunk cost, and thus not an avoidable cost eligible for inclusion in going-forward costs. If, however, pollution control improvements had not been made, and a plant would be mothballed if the equipment were not added, then the pollution-control costs could be avoided and could qualify as avoidable costs. As above, however, the comments seem to assume that including such costs would automatically result in their recovery, when in fact the result may be that the unit does not clear in the auction. As above, this comment seems to assume that suppliers

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[22] NRG at 21.

[23] *See* Willig Aff. ¶ 9 (stating that: "For market participants to engage in efficient levels of new investment, potential investors need to anticipate prices that will generate, on average, revenue at least equal to their long-run cost (net of the margin earned from other energy-related markets.").

[24] KeySpan at 31-32.

[25] NYISO Installed Capacity Manual, Attachment I §5.15.2 (specifying the construction of a supply curve to clear against the demand curve); *available at* http://www.nyiso.com/public/documents/manuals/operations.jsp?maxDisplay=20.

[26] *See* IPPNY at 17.

should expect to be paid at the level of their bids, when in reality rational investment decisions should be based on expectations of clearing in the market at competitive auction prices.

Several suppliers' comments assert that all significant costs avoidable by retirement, including property taxes (which are recurring but admittedly not marginal), site leasing, land ownership and equipment, should be included in "going-forward" costs for purposes of determining generator reference levels. As stated in Dr. Patton's first affidavit, the NYISO proposal provides for the consideration of the additional costs that a unit could save by being retired rather than mothballed, such as property taxes.[27] As further stated by Dr. Patton, however, "if a reference level adjustment [for retirement] is granted and the unit does not clear in the spot auction, the NYISO and FERC should expect the permanent retirement of the unit."[28] Indeed, any such conduct may well warrant a referral to the Commission for possible enforcement actions, as an effort to manipulate market prices by misrepresenting the retirement status of the unit. In any event, since permanent retirement is a drastic and infrequent occurrence, it is appropriate to deal with these additional costs on a case-by-case basis, on the basis of an appropriate demonstration by the relevant unit's owner.

Different concerns are raised by assertions that the opportunity costs of exporting to another control area should also be considered in determining going-forward costs.[29] These comments do not show that there would in fact be any opportunity to qualify capacity for sale in an external market. For example, examination of the manuals for the capacity markets in PJM and ISO-NE shows that both require longer time frames for participation in their markets

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[27] Patton 1st Aff. ¶ 59.

[28] *Id.*

[29] Astoria Generating at 38; IPPNY at 17.

than the monthly deadlines for the New York markets.[30] By the time of the New York monthly auctions, any opportunity to participate in those external markets would have already been forgone. Moreover, opportunity costs reflect foregone benefits, rather than out-of-pocket accounting costs such the labor, materials and other costs identified by Mr. Ungate in his affidavit in support of the Oct. 4 Filing. It is not clear in what sense export opportunity costs are relevant costs under the standard articulated by Dr. Patton: "the relevant costs are those costs that can be avoided if the unit shuts down."[31] Thus, the comments do not show that there would be "going-forward" export opportunity costs. This is particularly true given the existing alternating current ties to and from New York City, over which capacity (or energy) can flow in both directions and prices would tend to equilibrate.

Longer term, there may be export issues arising from the future development of controllable transmission lines between New York City and external control areas. In that situation, the market structure would need to provide protections against the use of exports as a means of withholding capacity from New York City; that is, sales out of the City at prices lower than in the City in order to drive up the price in the City. The NYISO would note by way of these comments that it did not intend the lifting of restrictions on the ability to enter into bilateral contracts by mitigated suppliers to provide a means to engage in withholding by exporting. Any such potential would need to be addressed in the tariff revisions to comply with the Commission's order in this docket, and may warrant further consideration in the NYISO stakeholder process.

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[30] ISO New England Manual for Installed Capacity, Attachment G; PJM Manual 18: PJM Capacity Market, Rev. 0, at 51-52.

[31] Patton 1st Aff. ¶ 45.

IV. Ownership or Control Criteria for Application of the Pivotal Supplier Test

Under the NYISO's proposal, capacity may become subject to the mitigation if it is held by a pivotal supplier. Suppliers may be deemed pivotal under either an ownership test or a control test. Under the ownership test, the NYISO will consider all of the NYC capacity in a supplier's portfolio. Under the control test, the NYISO will determine all of the capacity available for sale in the spot auction attributed to any supplier, whether that control was obtained by ownership, or by purchases in earlier auctions or bilateral transactions.

At least two supplier comments assert that application of the pivotal supplier test should be based only on control of generation, without a test based on ownership.[32] These comments overlook the fact that the NYISO does not have a determinative indicator that a pivotal supplier under the ownership test has in fact relinquished complete control over offers for its pivotal capacity. As Dr. Patton states, the "transfer of control via contract may be less than complete, and private contracts between market participants may not be sufficient to extinguish all influence or interest of the owner in the resource."[33] The NYISO is not party to any contracts or other arrangements that generation owners may have relating to the output of their units, and "[i]n practice it would be very costly and intrusive to require the NYISO to evaluate bilateral contracts between market participants to make accurate determinations concerning the degree of control over a resource."[34] As the Commission stated in Order 697, "the determination of control is appropriately based on a review of the totality of circumstances on a fact-specific basis."[35] The NYISO does not have the resources or sufficient time in the auction process to

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[32] Astoria Generating at 6; KeySpan at 30, Hieronymus Aff. at 7.

[33] Patton 2nd Aff. ¶ 13.

[34] *Id.*

[35] Market-Based Rates for Wholesale Sales of Elec. Energy, Capacity and Ancillary Servs. By Pub. Utils., Order No. 697 P14, 72 Fed. Reg. 39,904 (July 20, 2007), FERC Stats. & Regs. ¶ 31,252 (2007) ("Order No. 697").

undertake a unit-by-unit analysis of whether an owner may have transferred sufficient control to warrant attributing "control" to some other entity for purposes of the pivotal supplier test. The Commission also observed in Order 697 that:

> With regard to the suggestion that we adopt a rebuttable presumption that the owner of the facility controls the facility, our historical approach has been that the owner of a facility is presumed to have control of the facility unless such control has been transferred to another party by virtue of a contractual agreement.[36]

In addition, "apparent transfers of control may not include the transfer of all economic property rights associated with the resource."[37] Thus, the first prong of the NYISO's proposed pivotal supplier test appropriately focuses on the ownership of supplies.

In addition, however, a supplemental test, based on an accumulation of capacity by ownership or through bilateral contracts or the strip or monthly auctions is also appropriate, as tacitly acknowledged by the advocates of a "control" test. This second prong of the pivotal supplier test would be made by the NYISO based on the certification process prior to the spot market auctions. While, as Dr. Hieronymus acknowledges, certification of capacity in the monthly auction process would not by itself be sufficient to make a definitive determination of "control" to the exclusion of an ownership test,[38] certification by a given entity of sufficient capacity in the action process to qualify as pivotal could well be sufficient to affect auction prices. Thus, if the NYISO observes such an accumulation, application of a pivotal supplier test would be appropriate. This two part test starting from ownership is the only practical means of providing the necessary protections for the market against attempts to evade a "pivotal suppler" designation.

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[36] Order No. 697 P183.

[37] Patton 2nd Aff. ¶ 14.

[38] Hieronymus Aff. at 7 n.5.

V. Reduction of the 500 MW Threshold for Supplier Mitigation

ConEd and its expert Dr. Cramton assert that the exemption should apply to all suppliers with more than 200 MW, since this is more conservative, will do no harm, and will prevent undesirable exercises of market power. [39] Dr. Cramton asserts that as price falls, the incentive to withhold increases because a linear demand curve is less elastic at lower prices. He also claims that a non-pivotal supplier with more than 500 MW may have an incentive to withhold in times of surplus.[40]

As stated in his affidavit, Dr. Patton bases the 500 MW threshold on the assumption that all competing supplies are sold and the market clears at the level determined by the demand curves. Dr. Cramton does not show that his higher incentives at lower prices are likely to occur, particularly in light of the proposed mitigation measures against uneconomic entry. Dr. Patton's 500 MW threshold also is sufficient to capture all of the large net suppliers in New York City, and Dr. Cramton does not show that his lower threshold would have any significant effect. Indeed, an examination of the UCAP available from qualified suppliers indicates that no additional suppliers would be affected by Dr. Cramton's lower threshold. That being said, the NYISO would agree that there is a range of reasonable assumptions for this threshold.

VI. Removal of the DGO Revenue Cap

Several governmental or load-side comments assert that retention of the revenue cap is needed as a safeguard against physical withholding.[41] To the extent these comments are predicated on an asserted potential for physical withholding, and not on unarticulated equity concerns, the NYISO submits that physical withholding is addressed by the spot market must-

[39] ConEd at 26, Cramton Aff. at 5.

[40] Cramton Aff. at 3.

[41] ConEd at 26-27; Consumer Power Advocates at 1; New York City at 13; NY Consumer Protection Board at 9; NY Public Service Commission at 5, Paynter Aff. ¶ 1.

offer requirement for any capacity not sold bilaterally or in the strip or monthly auctions; thus, the revenue cap is not needed as a measure against physical withholding. In addition, the mitigation in the NYISO proposal will ensure that seller market power is appropriately mitigated, such that, as the Commission has held in the authority cited by the above comments, all sellers in an auction should receive the auction clearing price. Moreover, to the extent generator reference prices include going-forward costs, including retirement costs where appropriate, the market should provide a sufficient incentive against unwarranted retirement—and retirement by generators that cannot recover their going-forward costs at market prices may be warranted. Indeed, retaining the revenue cap would only reduce the incentives to stay in the market, and thus tend to bring about the very market exit that is of concern to the commenters supporting retention of the revenue cap.

To the extent, however, that these comments intend to raise equity issues that, explicitly or implicitly, relate back to the terms and conditions of the generation divestiture by ConEd, as stated in the Oct. 4 Filing the NYISO is not in a position to comment.

VII. Application of the Bid Floor to Supply Added for Reasons other than Reliability

The NY PSC, NYPA and New York City contend that the proposed buyer mitigation measure would interfere with legitimate efforts to implement public policy preferences for new resources for fuel diversity, environmental or other reasons.[42] The addition, however, of resources for non-reliability reasons, including a desire for increased self-supply, would not be precluded by the NYISO proposal. All the proposal seeks to do is ensure that the reliability effects of such a unit are appropriately reflected in capacity market prices; all the proposal seeks to do is recognize that, given the existence of a market for capacity, the effect of new capacity on that market is a fact that cannot be made to go away by being ignored.

[42] NY Public Service Commission at 20, Paynter Aff. ¶ 24; NYPA at 9; New York City at 20.

VIII. 75% of Net CONE Threshold for Buyer Mitigation

A number of suppliers take issue with setting the threshold for buyer mitigation at entry that occurs below 75% of net CONE. For example, NRG asserts that the threshold should be at 90% of net CONE, while Astoria Generating says the threshold should be set at 100% of net CONE in year of entry, or an entrant's demonstrated net CONE.[43]

Dr. Patton's proposal for a 75% of net CONE threshold is similar to the thresholds used in PJM and ISO-NE, and is intended to provide a leeway of more than 400 MW to recognize the scale of economic new unit entry.[44] That is, if the efficient size of a plant for new entry is 400 MW or somewhat more, then the desirable market entry will have the natural and expected effect of pushing prices down the demand curve to approximately 75% of net CONE. By the same token, significantly tighter thresholds could penalize economic new entry by excluding it from the market, even though that is the unit that should be entering. The comments do not address this consequence of the advocated threshold levels.

Entergy Nuclear/Mirant and its witness Dr. Shanker propose measures for any capacity purchased via a mechanism that only allows certain resources, *e.g.*, new generation or new demand response, to participate, as opposed to all resources, new and existing. They say that capacity so purchased must be offered at an "Effective Price" equal to actual total contract payments less expected market value for energy and ancillary services, and if that price cannot be determined then net CONE for the currently effective ICAP Demand Curve.[45] This proposal suffers from the same defect of setting a high threshold that would likely penalize entry that should be occurring.

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[43] NRG at 18, Cavacchi Aff. ¶15, 39; Astoria Generating at 5.

[44] In this context, "net CONE" refers to the reference level at 100% of the minimum capacity requirement that is determined in setting the NYC demand curve.

[45] Entergy Nuclear/Mirant at 14, Shanker Aff. ¶ 62.

The NYISO acknowledges that the 75% floor by its terms would not address the theoretical tactic of using a succession of units significantly smaller than 400 MW to significantly depress capacity prices.[46] There is, however, no current evidence of any such effort, and any attempt to try it should become evident from the New York interconnection queue. A corresponding issue could arise if the efficient level of entry became a unit substantially larger than 400+ MW, in which case the floor could be too high, but only to the extent this situation would not be addressed by the refinement to the *ex ante* test discussed below. If and when a need to address either situation seems likely, the NYISO would use appropriate procedures to return to the Commission for authority to adjust the floor as may be appropriate.

IX. Time Period for Application of the Bid Floor

Several commenters contend that imposing a floor for three years is not sufficient to deter uneconomic entry, because there would still be a net benefit from lower capacity prices after three years.[47] Dr. Hieronymus, however, acknowledges that load growth in the City has been approximately 160 MW/year, which amounts to 480 MW over three years. Thus, even if most of a 500 MW new plant is excess capacity, prices on the demand curve would have risen back to essentially the net CONE level over the three year period of the floor, and indeed prices would be one-third of the way back to CONE after the first year. If the price under the demand curve is above the floor, then the floor is largely if not entirely moot.

Nonetheless, after reviewing the comments, Dr. Patton is concerned that the time period for the imposition of a bid floor should be designed to vary with the size of a new entry. Given load growth in New York City at 150 MW or more, a three year period would ensure that an

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[46] Patton 2nd Aff. ¶ 16.

[47] *See, e.g.,* KeySpan at 20, Hieronymus at 24; NRG at 17, Cavicchi Aff. at ¶ 35.

efficient new entry at approximately 400 to 500 MW would not cause capacity prices to clear below the floor, because by the time the new unit can offer at levels below the floor, the demand for capacity will have grown by approximately the size of the investment, pushing prices above the floor. As Astoria Generating's witness Mr. Younger states, however: "This period may be too long for small additions, but too short to address the potential that a large amount of capacity could be introduced simultaneously with the aim of collapsing the market after the three year period ends."[48] Astoria Generating thus suggests a formula that sums the amount of the new uneconomic entry in any year plus any remaining uneconomic entry from any previous year, and then divides this total by the average annual change in the NYISO's determination of need for ICAP in that locality over the previous three years.[49]

Dr. Patton does not agree with the inclusion of uneconomic entry from prior years in a time period formula. Any such entry would have been subject to mitigation or not mitigated based on its own facts, and as Dr. Patton states, "including the pre-existing surplus in such a formula . . . introduces additional complexities and may penalize an entrant because of factors outside of its control."[50] In addition, Dr. Patton concludes that the duration of a bid floor should be at least three years, in order to provide a sufficient deterrent to uneconomic entry.[51] Accordingly, Dr. Patton proposes that the time period for a bid floor should be the longer of three years or a period determined by the size of the new investment divided by the annual growth rate in capacity demand.[52] Under this approach, if an investor builds an uneconomic 750 MW unit, at current growth rates of approximately 150 MW per year, the floor would last

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[48] Younger Aff. ¶ 47.

[49] Astoria Generating at 5.

[50] Patton 2nd Aff. ¶ 19.

[51] Patton 2nd Aff. ¶ 20.

[52] *Id.*

for approximately five years rather than three, with the expectation that after five years capacity demand will have outstripped the supply associated with the new unit.

X. Application of the Offer Floor to Existing Generation; Phase-In of Supplier Mitigation

Many of the suppliers urge the Commission to apply the NYISO's proposed measures to protect against uneconomic entry, sometimes with suggested revisions, to two existing facilities in New York City: the SCS/Astoria plant and NYPA's new Poletti unit. Some of the commenters couch this request as an equitable argument because unlike the buyer mitigation proposal, the seller market power mitigation measures would apply to existing units.[53] If the Commission decides to apply the uneconomic entry measures to the two existing units as the suppliers' request, it could only do so as a matter of equity, because applying the bid floor to these two existing units would be a fundamental misapplication of the proposed measure.

As explained by Dr. Patton, the purpose of the offer floor is to deter uneconomic new entry.[54] The proposed measure is intended to impose a meaningful disincentive on decisions to invest in new capacity at times when a proposed addition is not justified by the capacity supply relative to the minimum capacity requirement. If the new addition would simply contribute to a significant capacity excess, the bid floor will price the new capacity out of the market and thus deprive it of market revenues. For the existing SCS/Astoria and Poletti units, however, deterrence of their entry by definition is no longer possible. Moreover, the Commission has generally required market power mitigation measures to be applied prospectively.[55] Here, even assuming that SCS/Astoria and Poletti represent uneconomic entry, that entry, and more

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[53] *See, e.g.,* Astoria Generating at 2-3; Dynegy/Coral at 3; Entergy Nuclear/Mirant at 15; KeySpan at 25, Hieronymus Aff. at 23; NRG at 17, Cavicchi Aff. ¶ 42.

[54] Patton 1st Aff. ¶ 67.

[55] *See, e.g., New York Independent System Operator, Inc.,* 90 FERC ¶ 61,317 at 62,055 (2000) (requiring the NYISO's market mitigation plan "to clarify that mitigation for market power is prospective only.").

importantly the investment decisions that caused the entry, occurred some time ago. By contrast, approval of the proposed supplier bid cap would plainly be prospective mitigation, since it would apply to future supplier bidding behavior.

With respect to possible equity reasons for imposing a bid floor on existing generation, the NYISO would note that the commenters have not established that the investment decisions on the two existing plants were in fact uneconomic at the time and under the conditions in existence when those decisions were made. In that light, the equity issue would appear to relate more to supplier expressions of concern about the immediate revenue impacts on suppliers of lowering the cap on their offers from current levels.[56] If so, the NYISO would suggest that if the Commission decides to address this concern, it should do so directly by adopting a phase-in of the supplier mitigation measure rather than indirectly through the application of a bid floor to existing units.[57] As a practical matter, the supplier mitigation measure could be phased in over some appropriate time period without undermining the structure of the NYISO's proposal.

XI. Exemption for SCRs

Keyspan and IPPNY oppose exempting demand side resources that participate in the NYISO's capacity markets, called Special Case Resources ("SCRs"), from the proposed provisions regarding uneconomic entry.[58] The NYISO values the participation of these demand side resources in its markets and suggests a cautious approach when considering comments that may erect barriers to their entry and participation in NYISO-administered markets.

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[56] *See, e.g.*, Astoria Generating at 2; NRG at 14.

[57] *See* KeySpan at 11 (proposing a two-year transition period).

[58] Keyspan at 26-27; IPPNY at 14.

The Keyspan and IPPNY comments are apparently grounded in a fear that large LSEs will suddenly develop a large portfolio of SCRs in order to suppress prices.[59] In fact, however, very few SCRs are currently sold into the markets by LSEs, and such resources have not traditionally been added in large quantities in a short time, as might be the case with generation. Rather, discovery of new SCRs and their introduction into the capacity market is a continual process that requires significant time and effort. The existence of SCRs cannot just be created by an LSE because SCRs are provided by commercial or industrial entities whose primary interests are in the markets for their own products and services. Currently, there are approximately 1,300 individual SCRs in New York City. As most of these resources are very small, the combined MWs of all of these resources is less than 400 MW.[60] It has taken several years for Responsible Interface Parties ("RIPs") to develop the current SCR client base in New York City. As noted in the NYISO's January 2007 Demand Response filing, state-wide only approximately one-third of all SCR MWs are held by RIPs that are LSEs and Transmission Owners, with the majority being held by other RIPs.[61]

Thus, the apparent concern that LSEs will find hundreds of new MWs of SCR capacity in the city in rapid fashion and drive down capacity prices does not comport with the reality of SCR development. The comments do not provide a sufficient basis to warrant erecting barriers to entry by demand side resources.

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[59] *See* KeySpan at 26.

[60] November Demand Response Registration, *available at* http://www.nyiso.com/public /webdocs/products/demand_response/dr_registration/2007_November_registration.pdf.

[61] NYISO 2006 Demand Response Programs, *available at* http://www.nyiso.com/public/ webdocs/documents/regulatory/filings/2007/02/nyiso_answr_cmmnts_crrct_rprts_2_16_07.pdf

XII. Application to Controllable Transmission

Hudson Transmission Partners asserts that controllable transmission does not provide capacity standing alone, but only through existing generation at the other end of the line, and thus should not be subject to mitigation as new generation.[62] These comments ignore the fact that it is the controllable transmission that brings in capacity to the New York City market that did not exist before, just like a new generating unit in New York City. The two types of supplies are eligible to receive the same market clearing price and would have the same effect on the market. Thus, no special exemption for controllable transmission is warranted. At the same time, if merchant transmission can show that open-season allocation of TSRs and other applicable procedures establish that the project would be economic, then it should qualify for an exemption from mitigation.[63]

XIII. Exemption Based on Three Year Look Ahead at Expected Prices

Several comments take issue with the NYISO's proposal for an *ex ante* exemption from a price floor for new entry based on a determination that prices in three years are projected to exceed 75% of net CONE. For example, Astoria Generating asserts that forecasting prices is too uncertain and will put the NYISO in a difficult and untried role.[64] KeySpan contends that not enough details have been provided on how the price forecasting would be done.[65]

While price forecasts are inherently subject to some uncertainty and hence a risk of erroneous results, the NYISO and its Market Advisor continue to advocate the *ex ante* price floor exemption in order to help ensure that buyer mitigation does not become an unwarranted barrier to entry by new capacity. The *ex ante* test is intended to address this important goal by

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[62] Hudson Transmission Partners at 3; *see also* NYPA at 5.

[63] See comments of East Coast Power at 3 and 6-7.

[64] Astoria Generating at 33.

[65] KeySpan at 21-22.

providing a means for potential investors to be assured that a new plant will be able to participate fully in the capacity auctions. This goal is sufficiently important to warrant some risk that the exemption may be erroneously granted. As stated by Dr. Patton:

> By providing a clear test that would exempt generation being built economically based on the expected market conditions, and applying such a test at the time the developer is deciding whether to make a commitment to move forward on the project, the exemption addresses the concern that uncertainty associated with the potential costs of the bid floor could serve as an inefficient barrier to entry. On net, the value of reducing this source of risk faced by resource developers far outweighs the possible costs associated with forecast error on the part of the NYISO. [66]

Moreover, the relevant price projections are not like trying to guess prices in some volatile global commodity market, but are largely a function of determining where projected supplies will intersect with the NYC demand curve.[67] Capacity from generation, by far the dominant form of supply, is relatively stable and predictable, and while imports and exports can vary significantly in the New York capacity markets generally, they have been much less if any of a factor in New York City. Overall, the proposed price projections seem no more uncertain than the determinations that need to be made in, for example, applying generator deliverability tests.

ConEd claims that if there were multiple supply proposals that would each individually pass the price forecast test, but that together would substantially exceed the requirement for new capacity, the NYISO has no way of determining which proposal would be designated as "economic."[68] This scenario is not realistic, because it assumes that the "economic" designations could be simultaneous. In reality, the first project to meet the criteria for being "economic" would earn that designation, and subsequent plants that fail the test would not. As

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[66] Patton 2nd Aff. ¶ 23.

[67] Patton 2nd Aff. ¶ 22.

[68] ConEd at 32, Cramton Aff. at 5-6.

Dr. Patton states in his affidavit in support of the Oct. 4 Filing: "The evaluation of whether or not the new entrant would be economic should be conducted before the developer commits to go forward with the project and accepts its cost allocation from the facilities study and makes a security deposit in the interconnection process."[69] ConEd has not shown a likelihood that two significant projects would reach this point at the same time, or that a "first in time, first in right" approach could not otherwise be applied. ConEd also claims that the "economic" designation is subject to gaming by existing suppliers because it does not carry a commitment to supply.[70] But this ignores the significant costs that would have been incurred and real commitments that would have to be made as a project progresses past the point in the interconnection queue of being economic.

Nevertheless, the NYISO would acknowledge that some details of the price projections for the *ex ante* exemption remain to be developed, and that specificity in the exemption procedures, including such matters as priority rules, and resolving concerns with the details such as those raised by KeySpan,[71] is a desirable goal. These sorts of concerns, however, do not establish that the proposed *ex ante* exemption is wrong in principle, and do not justify ignoring the danger to the capacity market, and ultimately to Iin-City reliability needs, if buyer mitigation functions as a barrier to entry.

In consideration of the comments on the Oct. 4 Filing, however, Dr. Patton has concluded that the *ex ante* test could be improved in order to reduce any risk that it might serve as a barrier to entry for relatively large units. This could occur because it may be unreasonable to expect that post-entry prices in the first year after a relatively large unit enters will be high enough to cover the levelized entry costs. Given the lumpiness of investment, economic

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[69] Patton 1st Aff. ¶ 70.

[70] ConEd at 33, Cramton Aff. at 7.

[71] KeySpan at 21-22.

investment in a large unit may result in prices lower than its entry costs in the first year, but higher than its entry costs in later years as demand grows to absorb the new supply.[72]

Dr. Patton proposes to address this concern by amending the *ex ante* test to exempt a new unit if it meets either of the following tests:

a) The post-entry price in the first year after entry is higher than the offer floor (*i.e.*, 75% of net Cone); or

b) The average of the post-entry prices in the first three years after entry is higher than the new unit's entry costs (*i.e.*, the net CONE of the new unit).[73]

The second part "of this test represents an incremental change to the NYISO's proposed measure that would help ensure that the measure would not serve as an inefficient barrier to entry."[74]

XIV. Conclusion

WHEREFORE, for the foregoing reasons, the New York Independent System Operator,

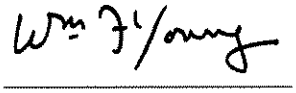
[72] Patton 2nd Aff. ¶ 24.

[73] *Id.*

[74] *Id.*

Inc. respectfully requests that the Commission accept the proposal described in the Oct. 4 Filing as modified here just and reasonable, and grant the requested effective date.

Respectfully submitted,



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Counsel for New York Independent
System Operator, Inc.

December 12, 2007

CERTIFICATE OF SERVICE

I hereby certify that I have electronically served the foregoing document on the official service list compiled by the Secretary in Docket No. EL07-39-000, in accordance with 18 C.F.R. § 385.2010 (2007).

Dated at Washington, DC, this 12th day of December, 2007.

/s/ William F. Young
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UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc. **Docket No. EL07-39-000**

SUPPLEMENTAL AFFIDAVIT OF DAVID B. PATTON, PH.D.

December 12, 2007

I. Purpose and Qualifications

1. My name is David B. Patton. I am an economist and President of Potomac Economics. Our offices are located at 9990 Fairfax Boulevard, Fairfax, Virginia 22030. Potomac Economics is a firm specializing in expert economic analysis and monitoring of wholesale electricity markets.

2. I currently serve as the Independent Market Advisor for the New York Independent System Operator, Inc. ("NYISO") and ISO New England Inc. ("ISO-NE"). I have served in this capacity for the NYISO since May 1999 and for ISO-NE since June 2001. As the Independent Market Advisor, I am responsible for assessing the competitive performance of the markets, including assisting in the implementation of a monitoring plan to identify and remedy market design flaws and abuses of market power. This has included preparing a number of reports that assess the performance of these markets and providing advice on numerous issues related to market design and economic efficiency.

3. On October 4, 2007, the NYISO submitted a proposal for a revised NYC Installed Capacity ("ICAP") market to address the buyer and seller market power concerns raised by the Commission in a July 6, 2007 order. That filing included my affidavit in support of the proposed market power mitigation rules intended to apply to the NYISO's in-city ICAP market.

4. In my role as Independent Market Advisor, I have worked closely with the NYISO to develop the mitigation tools included in the proposal. The purpose of this supplemental affidavit is to address issues raised in protests and comments filed in response to the October 4 filing.

5. Many parties filed comments in response to the October 4 proposal, raising issues that are more appropriately addressed in other proceedings. For example, parameters of the ICAP demand curve are currently under review in Docket No. ER08-283-000, and the NYISO currently has a proposal concerning a forward

capacity market under review in the stakeholder process. In general, I do not reply to these comments in this affidavit, but rather will continue to contribute to those market issues in the appropriate proceedings. While these topics raise closely related issues, it is not necessary to revisit these discussions in this proceeding in order to provide the NYISO NYC ICAP market protection from the exercise of market power.

II. Responses to Comments on the NYC ICAP Market Mitigation Proposal

A. The Use of a Market-Based Method for Achieving Capacity Goals

6. Certain economists commenting on the mitigation measures in the October 4 filing explicitly or implicitly take issue with my use of a competitive market standard for evaluating ICAP market performance. Dr. Hieronymus wrote: "While Dr. Patton defends the proposed mitigation as fully consistent with the outcome of competitive market operations (and, indeed claims that it is necessary to make the capacity market look like a competitive market), this is a bit of a red herring."[1] Hieronymus summed up by saying: "My point simply is that the capacity market is a regulatory construct, not a real market. … For these reasons, it is unhelpful and essentially irrelevant for Dr. Patton to appeal to what behavior would be if this were a real market."[2] Dr. Willig said the ICAP market "is not a market that uses competition to establish prices, but instead a system where the NYISO determines prices based on levels of existing capacity and the fantasy that the administratively constructed demand schedule represents real demands."[3]

7. While the specific claims made in these comments are in some respects true – demand is administratively determined in the ICAP market – it is wrong to conclude that references to an ideal of competitive market outcomes are out of place. The demand is administratively determined for both capacity and for

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1 Hieronymus Aff. at 3.

2 Hieronymus Aff. at 4.

3 Willig Aff. at 20.

operating reserves because the demand side of the market has not matured to the point of being able to participate fully in the market. It is for that reason that the markets have reliability requirements, rather than relying on voluntary market-based load curtailments when supplies are short. To assert that a market cannot exist without a mature demand side leaves as the only alternative a return to regulation. Fortunately, this is not necessary because a market can be utilized on the supply side to meet the demands that are administratively determined based on the underlying reliability needs of the market.

8. Furthermore, the competitive outcomes in such a market can usefully be employed in structuring the mitigation measures. If such a market were populated by many small suppliers, each supplier would have an incentive to offer to sell capacity at its going forward costs net of revenues it expects in the energy and ancillary services markets. It is not economically credible to argue that in the absence of market power a supplier would rationally offer above this level. In fact, because there is an option value to having a unit in operation and capable of selling electricity in future periods, a supplier might be willing to rationally accept capacity prices lower than net going forward costs for some period. In any case, the protests are wrong in arguing that it is not useful to use a competitive benchmark for participants' conduct in constructing appropriate market power mitigation measures.

B. Items Included in Going Forward Costs

9. The supply-side mitigation proposal would limit supplier bids to a reference price based on a unit's net Going Forward Costs if such costs are higher than a default reference level determined by the expected intersection of the Demand Curve with the supply curve. A number of supplier comments suggested a need for inclusion of a variety of additional costs in the net Going Forward Cost calculation, including taxes, land ownership costs and pollution control costs.[4]

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[4] IPPNY at p. 17; Dynegy at p. 10; KeySpan at pp. 31-32.

10. As explained in my affidavit accompanying the October 4 filing, the additional costs associated with serving as a capacity resource (*e.g.*, the obligation to submit offers to the Day-Ahead Market) are typically minimal for units for which it is economic to remain in the market given expected energy and ancillary services revenue, and a competitive offer price for such units is at or close to zero.[5] Such suppliers would rationally be price-takers in the capacity market and, in any case, would have net Going Forward Costs below the default reference level.

11. Arguments such as those raised by NRG, suggesting that the ICAP market should be designed to accommodate the costs of repowering or otherwise expanding capacity in NYC, seem to misunderstand the operation of the market.[6] The market is not designed to allow for the recovery of costs that are in excess of competitive price levels. NRG seems to be assuming that allowing a reference level that substantially exceeds the default reference level will allow the generator to recover its costs by being paid that unit-specific reference level. In reality, however, the default reference level is calculated in such a manner that it should be close to the clearing price of the market. Therefore, including investment costs in a new unit's reference level (or a repowered unit's reference level) will simply allow it to offer capacity at a price that will cause it not to clear and, therefore, be paid nothing. Clearly, this would not allow the supplier to recover its investment costs.

12. Because investment costs are sunk after the investment is made, such decisions should be made in advance based on the investor's expectation of the unit's future market revenues, including expected capacity market revenue. Once the investment has been made, the associated costs are sunk, and would not rationally be included in a supplier's offer that faces robust competition.

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5 Patton Aff. at 19.

6 NRG at 11.

C. Ownership or Control Criteria for Application of Pivotal Supplier Test

13. Several suppliers assert that control, not ownership, is the sole appropriate base for applying the pivotal supplier test. This is not true for at least two reasons. First, transfer of control via contract may be less than complete, and private contracts between market participants may not be sufficient to extinguish all influence or interest of the owner in the resource. In practice it would be very costly and intrusive to require the NYISO to evaluate bilateral contracts between market participants to make accurate determinations concerning the degree of control over a resource.

14. Second, apparent transfers of control may not include the transfer of all economic property rights associated with the resource. A pivotal supplier need not have the ability to withhold all of its units to profitably exercise market power. In fact, a withholding strategy typically involves withholding a portion of the supplier's resources in order to receive higher revenues on its remaining resources that are sold. Hence, the ability to offer a resource (*i.e.*, control) might be transferred to another supplier, but if the owner of the plant continues to receive capacity payments based on the NYISO market prices, conducting the pivotal supplier test only using the control criteria would not be reliable.

D. 75% of Net CONE Threshold for Buyer Mitigation

15. Several commenters argue that the 75 percent of net CONE threshold for application of buy-side mitigation measures is too low. NRG asserts the floor should be 90 percent, while Astoria Generating says 100 percent of net CONE in the year of entry or entrant's demonstrated net CONE.[7] Mirant proposes that buyer-supported units be procured through a process open to both new and existing resources or subject to a cost-based offer floor.[8] A number of parties also raise the concern that the buy-side mitigation measures can be manipulated such that the 75

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7 NRG at 18; Astoria Gen at 5.

8 Mirant at 13; Shanker Aff. at 28.

percent offer floor becomes in effect a ceiling on prices in the spot market, as buyers could subsidize repeated small investments in capacity and keep the market in surplus conditions.[9]

16. The 75 percent threshold was calculated to allow the addition of a unit of more than 400 MW when the market would otherwise begin to fall near the ICAP requirement without triggering mitigation. Hence, as proposed, the 75 percent threshold may not adequately address the concern regarding repeated small investments. However, raising the offer floor as some have proposed could create an inefficient barrier to entry for larger economic units. Therefore, any potential solution would likely require that the level of the floor vary by the size of the investment (*i.e.*, a higher floor for small investments).

17. Because repeated small uneconomic investments to sustain a surplus (and a capacity price near 75 percent of net CONE) could easily be observed, this issue could be addressed in the future if it materializes.

E. Time Period for Application of the Bid Floor

18. Several commenters contend that imposing a floor for three years is not sufficient to deter uneconomic entry, because there could still be an effect from uneconomic capacity after three years.[10] Given that the ICAP requirements in NYC grow at close to 150 to 170 MW per year, the three-year duration would ensure that the efficient new entrant, which is likely a combined cycle generator of 400 to 500 MW, would not cause capacity prices to clear below the floor. By the time the supplier is able to offer at prices lower than the bid floor, ICAP requirements will have grown by approximately the size of the investment.

19. Astoria Gen and its consultant Mr. Younger correctly point out, however, that the larger the amount of uneconomic entry, the longer the period during which load

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[9] Mirant at 9; Shanker Aff. at 24-25.

[10] KeySpan at 20-21; Calvicchi Aff. at 15-17; Astoria Gen at 5, Hieronymus Aff. at 24.

would benefit from lower energy, ancillary service, and capacity prices.[11] That is, it will take more years of load growth to absorb a larger amount of uneconomic entry. Astoria Gen proposes a formula approach based upon the current and projected amount of uneconomic surplus and the rate of projected load growth. I do not agree with including the pre-existing surplus in such a formula, which introduces additional complexities and may penalize an entrant because of factors outside of its control, but I do believe that augmenting the 3 year duration with a formula-based duration would be beneficial.

20. For example, the duration of the mitigation could be set equal to the longer of: 3 years or the estimated duration of uneconomic surplus calculated by dividing the new ICAP MW by the projected annual increase in ICAP requirements for New York City. If an investor builds an uneconomic 750 MW unit, and assuming 150 MW ICAP growth per year, the offer floor would be applied for 5 years rather than 3 years. At that point, the demand will have outstripped the incremental supply associated with the new unit.

F. Exemption Based on Three Year Look Ahead at Expected Prices

21. Several commenters take issue with the proposal to allow an *ex ante* exemption from the offer floor for new entry based on a determination that prices in three years are projected to exceed the offer floor.[12] As described in the October 4 filing, the evaluation of whether or not the new entrant would be economic should be conducted before the developer accepts its cost allocation from the facilities study and makes a security deposit in the interconnection process. Commenters correctly observe that such an evaluation is subject to uncertainty and risk of NYISO error.

22. However, the forecasting necessary to identify future ICAP prices is largely a function of determining where projected supplies will intersect with the NYC

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[11] Astoria Gen at 27-30; Younger Aff. at 30-34.

[12] Astoria Gen at 33; Younger Aff. at 30; KeySpan at 21-23; Hieronymus Aff, at 26; IPPNY at 15-16.

Demand Curve. Many of the factors involved in such an estimate would be reflected in other NYISO resource evaluations. Generation and other ICAP resources in the New York City market are variable, but not subject to the great degree of uncertainty that commenters assert.

23. Despite the fact that the *ex ante* test is subject to some uncertainty, it is nonetheless a very important component of the proposal. By providing a clear test that would exempt generation being built economically based on the expected market conditions, and applying such a test at the time the developer is deciding whether to make a commitment to move forward on the project, the exemption addresses the concern that uncertainty associated with the potential costs of the bid floor could serve as an inefficient barrier to entry. On net, the value of reducing this source of risk faced by resource developers far outweighs the possible costs associated with forecast error on the part of the NYISO.

24. However, the application of this *ex ante* test could be improved to further reduce the risk that it might serve as a barrier to entry for relatively large units. This concern arises because it may be unreasonable to expect that the post-entry prices in the first year after a relatively large unit enters will be high enough to cover the levelized entry costs of the unit because of the lumpiness of the investment. Rather, economic investment in a large unit may result in prices lower than its entry costs in the first year, but higher than its entry costs in later years as the demand grows to absorb the new supply. To address this concern, the *ex ante* test could be amended so that a unit would be exempted from the floor if either of the following tests are satisfied:

- The post-entry price in the first year after entry is higher than the offer floor (*i.e.*, 75 percent of net CONE); or

- The average post-entry prices in the first three years after entry is higher than the new unit's entry costs (*i.e.*, the net CONE of the new unit).

25. The second element of this test represents an incremental change to the NYISO's proposed measure that would help ensure that the measure would not serve as an inefficient barrier to entry.

III. Conclusion

26. This concludes my affidavit.

ATTESTATION

I am the witness identified in the foregoing affidavit. I have read the affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.

David B. Patton

December 12 2007

Subscribed and sworn to before me
this 12 th day of December, 2007

Notary Public

My commission expires:

MICHELLE L. VAN GORDON
Notary Public
SEAL
State of Indiana
My Commission Expires Nov 08, 2014