



## I. COMMUNICATIONS

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## II. BACKGROUND

Section 1253(a) of the Energy Policy Act of 2005 (EPAct 2005) adds a new section 210(m) to the Public Utility Regulatory Policies Act of 1978 (PURPA). This new section provides for termination of an electric utility's obligation to purchase energy and capacity from qualifying cogeneration facilities and qualifying small power production facilities (QFs), if the Commission finds that certain conditions are met. Among other things, Section 210(m) requires the Commission to prospectively remove the mandatory purchase obligation if it finds that the QF has nondiscriminatory access to competitive wholesale markets.<sup>2</sup>

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<sup>2</sup> The new PURPA section 210(m)(1) amends the obligation to purchase and states that:

“After the date of enactment of this subsection, no electric utility shall be required to enter into a new contract or obligation to purchase electric energy from a qualifying cogeneration facility or a qualifying small power production facility under this section if the Commission finds that the qualifying cogeneration facility or qualifying small power production facility has nondiscriminatory access to -

(A)(i) independently administered, auction-based day ahead and real time wholesale markets for the sale of electric energy; and (ii) wholesale markets for long-term sales of capacity and electric energy; or

(B)(i) transmission and interconnection services that are provided by a Commission-approved regional transmission entity and administered pursuant to an open access transmission tariff that affords nondiscriminatory treatment to all customers; and (ii) competitive wholesale markets that provide a meaningful opportunity to sell capacity, including long-term and short-term sales, and electric energy, including long-term, short-term and real-time sales, to buyers other than the utility to which the qualifying facility is interconnected. In determining whether a meaningful opportunity to sell exists, the Commission shall consider, among other factors, evidence of transactions within the relevant market; or

(C) wholesale markets for the sale of capacity and electric energy that are, at a minimum, of comparable competitive quality as markets described in subparagraphs (A) and (B).”

In its January 19, 2006 NOPR, the Commission proposed to amend its regulations, specifically 18 CFR § 292.303, to implement the requirements in section 210(m). The Commission sought public comment on the proposed regulations. Comments were due by February 27, 2006, with Reply Comments due by March 28, 2006.

### **III. COMMENTS**

#### **A. In the Final Rule, the Commission should find that the NYISO satisfies the requirements of PURPA section 210(m)(1)(A) and prospectively terminate the mandatory purchase obligation for electric utilities in the NYISO control area.**

There is more than sufficient evidence to support the Commission's preliminary conclusion that QFs interconnected with utilities in the NYISO control area have nondiscriminatory access to markets that satisfy the requirements of PURPA § 210(m)(1)(A) for removing those utilities' obligation to enter into new power purchase agreements with QFs. PURPA § 210(m)(1)(A) prospectively relieves a utility of its mandatory purchase obligation if the Commission finds that QFs have nondiscriminatory access to (i) independently administered, auction-based day ahead and real-time wholesale markets for the sale of electric energy; and (ii) wholesale markets for long-term sales of capacity and electric energy. The NYISO concurs with the Commission and with filed comments that subsection (A) was crafted to apply to regions where Independent System Operators (ISO) and Regional Transmission Organizations (RTO) administer day-ahead and real-time markets, and bilateral long-term contracts for the sale of capacity and electric energy that are available to QFs.<sup>3</sup>

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<sup>3</sup> NOPR, ¶14.

**1. The NYISO provides QFs with nondiscriminatory access to independently administered, auction-based day-ahead and real-time wholesale markets for the sale of electric energy.**

The Commission determined that the NYISO has a governance structure that was independent of market participants when it approved its operation as an ISO. The NYISO began operating markets and providing open access transmission service in 1999. The NYISO conducts a security-constrained economic dispatch and administers voluntary bid-based day-ahead and real-time wholesale electric energy and ancillary services markets in New York State. In 2005, the total dollar value of transactions in the NYISO-administered markets was \$10.7 billion. This reflected a peak load of 32,075 MW with 167,239 GWhrs of load. This total increased from previous years; the NYISO handled 158,014 GWhrs of load in 2003 and 160,209 GWhrs in 2004.

The NYISO's market design is based on a locational-based marginal pricing ("LBMP") system that is perhaps the most advanced in the United States. It produces a "co-optimized" dispatch solution under which energy, operating reserves, and regulation service are provided at the lowest possible total production cost while maintaining bulk power system reliability. The NYISO has also led the way in the development of market power mitigation measures that are minimally intrusive and that allow for appropriate scarcity pricing in shortage conditions.

The NYISO's Day-Ahead Market (DAM) is conducted prior to the commencement of each day. Forward contracts are established for each hour of the coming day. The Day Ahead Market sets prices based on bids and offers placed with the NYISO. The NYISO makes no distinction between bids from utility and non-utility generation, with the latter comprising the majority of generating capacity in New York State. There are 470 generators actively doing business directly with the NYISO. These include 159 utility owned or scheduled units,

299 merchant generators and 12 QFs that have power purchase agreements with New York utilities. Of the 299 merchant generators, 90 are run-of-river hydro facilities and intermittent power resources.<sup>4</sup>

DAM prices are determined on an hourly basis for each of the state's eleven zones and for the four neighboring control areas. Typically, more than 90% of energy transactions processed by the NYISO occur in the DAM. A Security Constrained Unit Commitment (SCUC) program determines the amount of energy expected to be needed within the state for each day. The NYISO will schedule the generating units that can, on a least bid cost basis, satisfy the energy needed to supply customers' demand and allow a sufficient reserve for contingencies.

Real-Time Market LBMP Prices are calculated at five-minute intervals throughout the day based on bids and offers placed with the NYISO. Real Time prices are determined for each of the state's eleven zones and for the four neighboring areas. Typically less than 10 % of energy transactions processed by NYISO occur in the Real Time Market. A Real-Time Commitment (RTC) and Security Constrained Dispatch (SCD) program determines the amount of energy needed within the state on a continual basis.

Beyond the theoretical merits of their design, the NYISO administered markets have proven successful in the real world. The NYISO's Independent Market Advisor has repeatedly determined that the markets are fundamentally competitive and have brought tangible benefits to

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<sup>4</sup> As defined in the NYISO's Market Administration and Control Area Services Tariff § 2.77a, Intermittent Power Resources are capacity resources that depend upon wind or solar energy for their fuel.

both net sellers and buyers of wholesale electricity in New York.<sup>5</sup> The Commission has also recognized that the markets have generally worked well.<sup>6</sup>

## **2. QFs in the NYISO Region have nondiscriminatory access to wholesale markets for long-term sales of capacity and electric energy.**

The NYISO markets both accommodate and help the development of bilateral contracts. Willing buyers and sellers can enter into bilateral transactions that use the NYISO-operated transmission system. Approximately 46% of the electric energy transacted in New York is sold through bilateral contracts. The degree of liquidity and appropriate price signals provided by the NYISO markets support long-term bilateral transactions. Both the New York Mercantile Exchange (NYMEX) and the Intercontinental Exchange (ICE) offer long-term forward markets for the NYISO.<sup>7</sup>

The NYISO has also implemented capacity market measures, including sloped installed capacity Demand Curves, which are now being emulated in other regions. The Installed Capacity (ICAP) Market in New York is based on the obligation placed on Load Serving Entities (“LSEs”) to procure ICAP to meet their minimum requirements. These minimum requirements are determined by each LSE’s forecasted contribution to its transmission district peak load, plus an additional amount to cover an Installed Reserve Margin. The amount of capacity that each

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<sup>5</sup> See, e.g., *2004 State of the Market Report: New York ISO*, Potomac Economics, Ltd. (July 2005); *2003 Annual Report on the New York Electricity Markets*, Potomac Economics, Ltd. (May 2004).

<sup>6</sup> See, e.g., *New York Independent System Operator, Inc.*, 104 FERC ¶ 61,002 at PP 15-16 (2003) (finding that NYISO’s 10-Minute Non-Synchronized Reserves Market was competitive and that mitigation measure modifications were warranted); see also *New York Independent System Operator, Inc.*, 103 FERC ¶ 61,291 at P 11 (2003) (rejecting contention that NYISO mitigation rules prevented the ISO Administered Markets from producing competitive prices).

<sup>7</sup> NYMEX has six long-term forward markets for the NYISO: NYISO Zone A LBMP Swap – Peak, NYISO Zone G LBMP Swap – Peak, NYISO Zone J LBMP Swap – Peak, NYISO Zone A LBMP Swap – Off-Peak, NYISO Zone G LBMP Swap – Off-Peak, and NYISO Zone J LBMP Swap – Off-Peak. ICE has four long-term forward markets for the NYISO: Financial Swap – Peak NYISO Zone A, Financial Swap – Peak NYISO Zone G, Financial Swap – Peak NYISO Zone J, and Financial Swap – Off-Peak NYISO Zone A.

supplying resource is qualified to provide to the New York Control Area is determined by an Unforced Capacity (UCAP) methodology. An LSE could contract for capacity, self-schedule, or rely on the 6-month strip or monthly auctions to fulfill its UCAP requirements. Capacity that is self-scheduled corresponds to capacity owned by an entity with a capacity obligation or purchased through a bilateral contract. All requirements must be satisfied at the conclusion of the spot market. All other auctions are voluntary. NYISO ICAP Auctions are designed to accommodate LSEs' and suppliers' efforts to enter into UCAP transactions and are open to all registered customers of the NYISO, including QFs.

Generation developers consistently indicate that price stability over the long-term is one of the factors necessary to attract investment capital. Implemented in May 2003, the New York ICAP Demand Curves have been in place approximately two and one-half years. Since implementation, the NYISO has observed the positive trends and behaviors in the ICAP markets that were anticipated as benefits of the Demand Curves. The NYISO anticipated that the ICAP Demand Curves would result in price stability, an increase in bilateral transactions, and an increase in incentives to build new generation. The NYISO has observed an increase in capacity committed to the New York Control Area (NYCA) to date. While not entirely attributable to the ICAP Demand Curves, the capacity committed to the New York markets has trended upwards for the NYCA and for the New York City and Long Island localities. With the increase of available capacity, UCAP prices continue to remain stable on a statewide basis. New York City and Long Island prices remain stable, due also partly to the effects of bid caps in New York City and the bilateral nature of the Long Island market. The NYISO generally concludes that the market clearing price of capacity has stabilized, trending up or down in a rational manner in response to the actual supply and demand.

There is growing anecdotal evidence that the ICAP Demand Curves have added confidence to financing or re-financing existing generation and transmission assets in New York:

- “In conclusion, we would argue to FERC, state regulators, and investors that New York's capacity demand curve paradigm is the state of the art, and should be implemented (with suitable regional modifications) not only in New England, but also in California and even, ultimately, in PJM. . . . The only model with a chance to elicit investment in new capacity is the New York capacity demand curve/locational capacity model. . . . The [New York] demand curve provides a more stable stream of revenues for the generator when the market is in excess of reserve requirements. It also provides a mechanism for forecasting capacity values in the future, as new projects and retirements can be added to predict future available supplies against anticipated load growth. This allows developers to project more reasonably what can be expected from the capacity markets with any given investment scenario. . . . In the work our firm, ESAI, has done for investors in existing New York-based power assets, we have found a growing willingness to credit the capacity demand curve for some level of revenues in long-term market projections. We believe that is an important achievement.”<sup>8</sup>
- “New York now holds the title of being the well established market that others are trying to replicate.”<sup>9</sup>
- “Since the introduction of the ICAP Demand Curve in May 2003, the NYISO's ICAP spot market prices have become stable and predictable, as expected. . . . While the ICAP Demand Curve only applies to the monthly spot market, its predictable price now provides a benchmark for forward auctions. . . . The ICAP Demand Curve appears to have met its immediate objectives of reducing price volatility, reducing market power, and improving the transparency of the ICAP market.”<sup>10</sup>

Similar comments have been made to the NYISO by a range of Market Participants. The Demand Curves have been characterized as a positive regulatory change that has fostered price stability, resulting in increased confidence in project financial projections and a better ability to enter into longer term contracts. This applies to all forms of generation, including QFs.

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<sup>8</sup> Edward Krapels, Director of Gas and Power Services, Paul Flemming, Manager of Power Market Services, Stephen Conant, Western Markets Analyst, Energy Security Analysis, Inc. (ESAI) “*The Design and Effectiveness of Electricity Capacity Market Rules in the Northeast and California*,” *The Electricity Journal* (October 2004).

<sup>9</sup> Craig Hart, Vice President U.S. Power Generating Company, *U.S. Capacity Market Evolution*, Web Conference (September 8, 2005).

<sup>10</sup> Dr. Thomas Paynter, Principal Economist, New York State Department of Public Service, *New York's Capacity Market Demand Curve*, CPUC-CEOB-CAISO Installed Capacity Conference, San Francisco (October 4-5, 2004).



**B. “Small” qualifying facilities can interconnect and sell their output in New York.**

The NYISO takes no position on whether the purchase obligation should be retained for small renewable projects or how to define “small.” Nevertheless, to inform the Commission’s decision, the NYISO provides information about power sales and interconnection opportunities for small facilities in New York. Any unit, regardless of ownership or QF status, that has a generating capacity of two MWs or higher can bid directly into the NYISO markets. Generators of that size may bid their energy in 0.1 MW increments. Generating facilities serving large customers (behind the meter) may aggregate and bid load reductions into the NYISO’s Day Ahead Market.

On December 8, 2005, the NYISO and the New York Transmission Owners (Joint Filing Parties) submitted standard interconnection procedures pursuant to Order No. 2006 and Order No. 2006-A, the Commission’s Final Rules concerning small generator interconnections.<sup>11</sup> The new interconnection procedures are proposed as a new Attachment Z to the NYISO’s Open Access Transmission Tariff and would apply to small generating facilities having a capacity equal to or less than 20 MW.<sup>12</sup> The Joint Filing Parties proposed to implement a statewide NYISO-administered process for small generating facilities interconnecting to the New York state transmission system and interconnecting to distribution systems used or expected to be used for making wholesale sales to the extent the interconnection is subject to Order No. 2006. In New York to date, there have been very few interconnections of generators with a capacity of 2 MWs to 20 MWs. Most small generator interconnections have been for facilities 2 MW or

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<sup>11</sup> *Standardization of Small Generation Interconnection Agreements and Procedures*, Order No. 2006, 70 Fed. Reg. 34190 (June 13, 2005), 111 FERC ¶ 61,220 (2005), order on reh’g, Order No. 2006-A, 113 FERC ¶ 61,195, 70 Fed. Reg. 71760 (Nov. 30, 2005)

<sup>12</sup> Joint filing of the NYISO and the New York Transmission Owners, Docket No. ER06-311-000, December 8, 2005.

smaller, interconnecting to distribution facilities subject to the jurisdiction of the New York Public Service Commission (“NYPSC”). These interconnections have been administered by the respective transmission owners in accordance with the standardized rules, regulations and procedures of the NYPSC.<sup>13</sup> Independent of Commission regulation, facilities under 2 MW may avail themselves of the NYPSC procedures governing the interconnection of generating facilities, including generators based on renewable resources such as wind and solar, to electric utilities in New York.

#### IV. CONCLUSION

Based on the preceding information, the Commission should find that the NYISO satisfies the requirements of PURPA section 210(m)(1)(A) and prospectively terminate the mandatory purchase obligation for electric utilities in the NYISO control area.

Respectfully submitted,

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<sup>13</sup> See Public Service Law § 66-1; In the Matter of the New York State Standardized Interconnection Requirements and Application Process for New Distributed Generators 300 kVA or Less Connected in Parallel with Radial Distribution Lines, filed in C 93-M—0229, Case No. 02-E-1282, Order Modifying Standardized Interconnection Requirements, 2004 N.Y. PUC LEXIS 460 (November 17, 2004)(increasing standardized interconnection requirements for new distributed generators to 2 MW); New York Public Service Commission, ‘New York Standardized Interconnection Requirements and Application Process for New Distributed Generators 2 MW or Less Connected in Parallel with Utility Distribution Systems,’ November 2004, available at [http://www.dps.state.ny.us/SIR\\_Require\\_11\\_04.pdf](http://www.dps.state.ny.us/SIR_Require_11_04.pdf) and Attachment IX.