UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

State Policies and Wholesale Markets Operated by ISO New England Inc., New York Independent System Operator, Inc., and PJM Interconnection, L.L.C.	))))	Docket No. AD17-11-000

COMMENTS OF INDEPENDENT POWER PRODUCERS OF NEW YORK, INC

On March 3, 2017, the Federal Energy Regulatory Commission ("Commission") issued a notice of a two-day technical conference in the above-captioned docket, which will be held by Commission staff beginning on May 1, 2017. According to the notice, the purpose of the technical conference is for staff and interested parties to discuss proposed solutions to resolve the long-standing tension between state programs to incent the development and maintenance of certain resource types to meet state public policy goals and the necessity that owners and developers of merchant electric generating facilities must rely on functioning wholesale electricity markets to produce accurate market signals to meet system needs reliably and cost effectively with new and existing resources. Specifically, "Commission staff seeks to understand the potential for sustainable wholesale market designs that both preserve the benefits of regional markets and respect state policies."[1] In advance of the technical conference and on behalf of the Independent Power Producers of New York, Inc. ("IPPNY"), I hereby submit comments on this topic with respect to the confluence of New York State clean energy public policies and the wholesale electricity markets operated by the New York Independent System Operator, Inc.

[1] Docket No. AD17-11-000, *State Policies and Wholesale Markets Operated by ISO New England Inc., New York Independent System Operator, Inc., and PJM Interconnection, L.L.C.*, Notice of Technical Conference (Mar. 3, 2017), at 2 ("Notice").

("NYISO") to further the dialogue at the conference and to develop a record to assist the Commission in its decision-making process.[2] The topic at hand is one with far-reaching importance to market participants, and I thank the Commission for providing a platform for our voices to be heard.

IPPNY's members generate over 75 percent of the New York State's electricity using a wide variety of generating fuels and technologies including cogeneration, nuclear, hydro, coal, wind, oil, and natural gas. As the trade association representing wholesale energy suppliers in New York for more than thirty years, IPPNY's mission statement has been to advocate for the continued development and enhancement of reliable and efficient competitive electricity markets, while building consensus among all private and public sector interests involved in the development of such markets. Since their inception, New York's competitive markets have spurred the addition of more than 11,000 megawatts ("MW") of generation capacity (including over 1,700 MW of wind generation), in areas of the state where that power is needed most, and signaled the retirement of 7,000 MW of inefficient generation capacity. IPPNY's members time and time again risked billions of dollars in making these investment decisions because they trusted that market forces, and not out-of-market forces, would determine competitive prices.

The competitive markets in New York, like in many other regions, are designed to achieve resource adequacy at the lowest cost. They are agnostic to environmental performance, treating each megawatt-hour of electricity produced the same, despite its environmental impact. That's partly why IPPNY has strongly supported New York State clean energy public policy

[2] IPPNY is a not-for-profit trade association representing the independent power industry in New York State. Its members include nearly 75 companies involved in the development and operation of electric generating facilities and the marketing and sale of electric power in New York. IPPNY's members include suppliers and marketers that participate in the NYISO's energy, capacity, and ancillary services markets. This pleading represents the position of IPPNY as an organization but not necessarily the views of any particular member with respect to any issue.

goals to reduce carbon dioxide emissions ("carbon") through programs such as the Regional Greenhouse Gas Initiative ("RGGI") that leverage New York's wholesale competitive electricity markets to attract new investment and efficiency improvements in a non-discriminatory and predictable manner. As a result of competitive market forces, sulfur dioxide emissions have dropped by 97%, nitrogen oxide emissions have dropped by 79%, and carbon emissions have dropped by 42%, making New York a national leader in reducing power sector emissions while maintaining the most reliable electric system in the nation.[3]

However, New York's energy markets have reached a crossroads. Public policy objectives, as noble as their intent may be, have historically been implemented in New York alongside competitive markets and not necessarily through them. This circumstance has led to an uneasy tension between the two paradigms—with the State implementing policies that have market impacts, and the NYISO and its market participants attempting to apply market principles in response. Fortunately, until recently, the State's actions have either been consistent with market principles (e.g., RGGI) or have been small enough in their goal (e.g., New York State Renewable Portfolio Standard) that the impact on competitive markets was concerning but not yet significant.

Within the past year, New York's policies have grown in size and scope, with the New York Public Service Commission ("NYPSC") adopting a Clean Energy Standard ("CES") that mandates that 50% of New York's electricity be generated by renewable sources by 2030 to reduce statewide greenhouse gas emissions by 40% by 2030 ("50 by 30 goal").[4] Pursuant to the

[3] *See Power Trends 2016: The Changing Energy Landscape*, N.Y. Indep. Sys. Operator, Inc. (July 5, 2016), at 36, http://www.nyiso.com/public/webdocs/media_room/publications_presentations/Power_Trends/Power_Trends/2016-power-trends-FINAL-070516.pdf.

[4] *See* NYPSC Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard*, Order Adopting a Clean Energy Standard (Aug. 1, 2016) ("CES Order").

CES, New York retail electricity consumers will be required to pay for the costs of renewable energy credits ("RECs") to incent and support the development of thousands of megawatts of new large scale renewable resources to meet the 50 by 30 goal.[5] Consumers will also be required to pay for zero-emissions credits ("ZECs") to retain approximately 3,400 MW of nuclear facilities which might otherwise retire from the market unless the CES price signal is internalized into wholesale market prices.[6] New York's one-state ISO structure and modest size makes New York's wholesale market particularly sensitive to such State intervention. Further, unlike the wholesale electricity markets in ISO-New England and PJM, which have three year forward capacity auction mechanisms that provide longer-term price signals to assist resource planning decisions, the short-term nature of the NYISO's monthly capacity auctions impose greater uncertainty with respect to planning decisions. While IPPNY supports New York State's clean energy aspirations, IPPNY is concerned that if those goals are pursued and achieved in the manner laid out in the CES, the wholesale market is at risk. IPPNY urges the Commission to examine whether competitive market principles could be used to achieve those goals in order to ensure the continued efficient functioning of the wholesale electricity market.

As discussed below, the tension between New York's clean energy goals and the wholesale competitive electricity market results from New York's decision to require retail consumers, through their retail electricity rates, to pay a much higher price for low-carbon energy sources than is reflected in the competitive wholesale electricity market price. The result is that New York public policy is selecting certain types of resources that would not otherwise be

[5] The NYISO estimated that the CES will require the development of: (i) approximately 25,000 MW of solar capacity to meet the goal solely with solar resources; or (ii) approximately 15,000 MW of wind capacity to meet the goal solely with wind resources; or (iii) approximately 4,000 MW of hydroelectric capacity to meet the goal solely with high availability hydroelectric resources. NYPSC Case 15-E-0302, *supra*, Comments of N.Y. Indep. Sys. Operator, Inc. (Apr. 22, 2016), at 4–5.

[6] *See* CES Order at 12–20.

signaled by the current wholesale electricity market construct. This imposes additional costs on consumers while at the same time suppressing wholesale market prices below efficient levels.

The tension between New York State clean energy goals and the goals of wholesale electricity markets can be reconciled if the NYISO adopted a market-based approach that allows for the integration of state public policy goals that value all low-carbon emissions resources in a consistent and non-discriminatory manner. At the same time, it is critical that the Commission protect the competitive wholesale electricity markets by ordering the NYISO to strengthen its buyer-side market power mitigation measures to ensure that the development of new, and the retention of existing, uneconomic resources that are supported with payments made outside of the wholesale competitive electricity markets do not artificially suppress installed capacity prices in New York. The relief requested by IPPNY in its now long-standing complaint docket before the Commission would require the NYISO to do just that.[7]

The Commission Should Authorize the NYISO to Internalize the Value of Carbon in Wholesale Energy Prices.

Wholesale energy prices currently include a cost of carbon because New York is one of the states that participates in the RGGI program.[8] RGGI requires fossil electric generating facilities larger than 25 MW to purchase RGGI allowances through an auction for each ton of carbon they emit.[9] These facilities include the costs of their RGGI allowances in their offers in the wholesale energy market because these costs are part of their operating costs. The number of

[7] *See* Complaint Requesting Fast Track Processing of the Independent Power Producers of New York, Inc., Docket No. EL13-62-000 (filed May 10, 2013); Motion to Amend, and Amendment to, Complaint of the Independent Power Producers of New York, Inc., Docket No. EL13-62-000 (filed Mar. 25, 2014); Protest of the Independent Power Producers of New York, Inc., Docket No. EL13-62-002 (filed Jan. 19, 2016).

[8] *See RGGI, Inc.*, Reg'l Greenhouse Gas Initiative, Inc., https://www.rggi.org/rggi (last visited Apr. 20, 2017).

[9] *Regulated Sources*, Reg'l Greenhouse Gas Initiative, Inc., https://www.rggi.org/design/overview/regulated_sources (last visited Apr. 20, 2017).

allowances available to be purchased is determined and controlled by the RGGI states; and the greater the supply, the lower the expected cost to purchase. Due to the large quantity of allowances made available, the most recent RGGI allowance auction cleared at $3/ton,[10] which is equivalent to approximately $1.60/MWh for the marginal resources in the NYISO's statewide energy market. The NYISO average wholesale energy price for 2016 was $34.28/MWh, which includes the cost of RGGI allowances.[11]

In 2016, the NYPSC adopted its CES, which put the State on a path of aggressively attracting and retaining zero-emissions energy resources through the awarding of contracts that value the environmental attributes of certain types of zero-emission resources. The CES assigns a much higher value to carbon than the value RGGI has produced. Under the CES, load-serving entities ("LSEs") are required to acquire a certain quantity of RECs that increases annually through a market process.[12] This process produced a price of RECs of $21.16/MWh that LSEs can buy to meet their compliance obligation for 2017.[13] The price at which LSEs must procure ZECs to compensate nuclear generators is reportedly based on the U.S. Interagency Working Group's projected social cost of carbon ("SCC") to estimate the value of carbon emissions reductions.[14] For the first two years of the ZEC requirement, ZECs are priced at the SCC minus the value of carbon already internalized in wholesale market prices under RGGI, unless wholesale market prices exceed $39/MWh, in which case the ZECs decrease in value. Under the

[10] *Auction 35*, Reg'l Greenhouse Gas Initiative, Inc., http://www.rggi.org/market/co2_auctions/results/auction-35 (last visited Mar. 29, 2017).

[11] *See* Bradley Jones & Rick Gonzales, *NYISO CEO/COO Report*, NYISO (Feb. 22, 2017).

[12] CES Order at 14.

[13] *See REC and ZEC Purchases from NYSERDA*, NYSERDA, https://www.nyserda ny.gov/All-Programs/Programs/Clean-Energy-Standard/REC-and-ZEC-Purchasers (last visited Apr. 20, 2017).

[14] CES Order at 134.

CES, the average estimate of the Value of carbon from April 2017 through March 2019 is $42.87/ton, which is almost $40/ton above the current RGGI price of carbon.[15] In energy terms, the cost of carbon included in the ZEC compensation for the first two years of the requirement would add $17.54/MWh to the wholesale energy price of approximately $34/MWh, which is more than a 50% premium over the NYISO wholesale energy price.[16] The CES does not require retail consumers to pay the cost of carbon for RECs from renewable energy facilities but instead requires load-serving entities LSEs to acquire a certain quantity of RECs that increases annually through a market process.[17] The CES directly included the cost of carbon in its calculation of the price consumers must pay for ZECs.[18]

With the State incenting the retention of existing and attraction of new resources based on a value of carbon that significantly differs from the value in the wholesale market, and doing so at a scale that will affect a substantial portion of New York's energy supply, its efforts effectively replace the investment function of the competitive market and subvert the signals provided by the Commission-approved wholesale market that are necessary to ensure the maintenance of existing, and construction of new, resources to meet system needs at just and reasonable prices. While the wholesale market is sending signals that the value of energy is roughly $34/MWh based upon a carbon value of approximately $3/ton, the State is making its resource decisions assuming a value of energy of approximately $55/MWh inclusive of the CES's value of carbon for ZECs. It is unreasonable and discriminatory to place a value of $43/ton of carbon emissions avoided by certain retained zero-emission resources outside of the

[15] *Id.* at 51.

[16] *See* NYSERDA, *supra* note 12.

[17] *See* CES Order at 14.

[18] *See id.* at 129–30.

wholesale market when the wholesale market places a value of only $3/ton on the carbon emissions of all other resources.

One way to resolve this tension and harmonize the State's clean energy goals with wholesale markets is by adopting a market-based approach that provides a single, market-wide carbon price by internalizing a consistent value for carbon into wholesale energy prices, or, alternatively, internalizes the clean energy or carbon reduction goals of the state into the wholesale market as an additional constraint that must be satisfied. Under the first approach, the full carbon cost would be added to the energy bids of carbon-emitting resources. The NYISO dispatch would thereby incorporate the full carbon cost in its commitment and dispatch decisions, and those costs would be included in the wholesale energy prices, which all zero-emitting resources would be paid. Carbon emitting resources would be paid the wholesale-energy price less the additional cost of carbon for the unit's generation. The receipts from customers to cover the costs of the additional cost of carbon that would otherwise be paid to carbon-emitting generators would result in a pool of money that could be allocated as deemed appropriate.

A market-based approach would support the State's public policy of valuing carbon emissions in a manner that is efficient, cost effective, and non-discriminatory. It would reduce carbon emissions from the entire generation portfolio and provide incentives for facilities to make improvements that reduce their emission of carbon/MWh below their historical emissions. The NYISO energy markets already properly allow market participants to reflect the cost of RGGI carbon emission allowances, as well as other monetized environmental emissions, into their marginal cost of energy production, providing some relative benefit to low or zero-emissions energy sources. The carbon-adder approach establishes a visible value for low or

zero-emission sources, creating an efficient and cost-effective means for all producers and consumers to factor the cost of emissions into economic decision-making in ways that spur innovation, minimize the cost of controlling emissions, maintain electricity system reliability, and work in harmony with the least-cost dispatching principles that are critical to the operation of the wholesale competitive electricity markets.

If the full cost of carbon was incorporated into NYISO commitment and dispatch signals, it would provide a better representation of the carbon impact of different resources based upon the actual benefits of their location and generation profile. There would also be savings to consumers from a reduction in the expected costs of ZEC payments, which could be phased-out while allowing nuclear units to remain economic because incorporating the full cost of carbon into the dispatch, if done correctly, should reduce the ZEC price to zero under the formula for calculating ZEC payments adopted by the NYPSC.[19]

The inclusion of a higher value of carbon would also send signals regarding the benefits of replacing less efficient carbon-emitting resources with more efficient resources, thereby further contributing to the State's clean energy goals. This would be expected to reduce the net cost of new entry ("Net CONE") for efficient units like combined cycles and would hasten the turnover of older and higher carbon-emitting resources with newer, state-of-the-art, efficient resources.

IPPNY is aware of the various initiatives being undertaken by the NYISO, ISO-New England, and PJM Interconnection to address the tensions between state public policy goals and the wholesale electricity markets. While IPPNY's preferred approach to reconciling such tensions is to incorporate a carbon price into wholesale market operations and dispatch, our

[19] *See id.* at 129–41.

recommendation should in no way be construed to preclude other potential marked-based solutions that may provide superior results for ratepayers and allow the state to reach its various policy goals. In New York, the one-state ISO structure that makes our markets particularly sensitive to State intervention is the same structure that makes achieving New York's public policy goals through the competitive wholesale markets more practicable. When allowed to function as intended, the wholesale market can provide significant benefits to ratepayers and all New Yorkers. Whether it be in the form of drastically reduced generator emissions profiles or a $400 million ratepayer savings as a result of a new capacity zone that sent the appropriate price signals to attract needed investment, the competitive wholesale market structure is capable of achieving public policy goals in the most efficient, transparent, and affordable manner possible.

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Respectfully submitted,

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