

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

Independent Power Producers of New York, Inc.	) ) ) )	Docket No. EL13-62-002
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**MOTION TO INTERVENE OUT OF TIME  
AND COMMENTS OF  
THE NUCLEAR ENERGY INSTITUTE**

In accordance with Rules 212 and 214 of the Federal Energy Regulatory Commission’s (“FERC” or “Commission”) Rules of Practice and Procedure,<sup>1</sup> the Nuclear Energy Institute (“NEI”) moves to intervene out of time in the above-captioned proceeding and provides comments to the Request for Expedited Action submitted by the Electric Power Supply Association (“EPSA”) on January 9, 2017 (“EPSA Request”). For reasons explained more fully in these Comments, NEI requests that any Commission action in this proceeding recognize the important benefits continued operation of nuclear units provides to New York consumers and to meeting New York’s environmental goals.

**I. BACKGROUND**

**A. Commission Docket No. EL13-62-000**

On January 9, 2017, EPSA filed its Request urging the Commission to act expeditiously on a June 17, 2015 compliance filing submitted by the New York Independent System Operator, Inc. (“NYISO”), and which was subsequently amended on December 16, 2015. NYISO submitted these compliance filings in response to a Commission order denying a complaint filed in the instant docket by the Independent Power Producers of New York, Inc. (“IPPNY”) on May

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<sup>1</sup> 18 C.F.R. §§ 385.212, 214 (2016).

10, 2013.<sup>2</sup> The IPPNY Complaint alleged that various market actions within the NYISO organized markets could result in below-cost bidding into the markets and artificially suppress clearing prices. The Commission denied the IPPNY Complaint for failing to show that the relevant provisions of the NYISO Tariff were unjust and unreasonable as required under section 206 of the Federal Power Act, but directed the NYISO to initiate and to report on a stakeholder process that would examine the issues raised by IPPNY. As explained in the EPSA Request, in response to compliance filings by the NYISO detailing the result of its stakeholder process, IPPNY filed a protest on January 19, 2016, urging the Commission to take additional steps to guard against price suppression within the New York organized wholesale market.<sup>3</sup>

The EPSA Request seeks expedited action on IPPNY’s now year-old protest, injecting into this proceeding, at this eleventh hour, EPSA’s concern that the recent requirement for payments to nuclear generators for zero-emissions credits (“ZECs”) poses “an existential threat to the organized wholesale markets” by establishing “State-approved subsidies for the retention of uneconomic existing resources.”<sup>4</sup>

## **B. NYPSC ZECs Proceeding**

On August 1, 2016, the New York Public Service Commission (“NYPSC”) issued an order requiring the New York State Energy Research and Development Authority (“NYSERDA”) to purchase ZECs on behalf of New York’s load-serving entities “from nuclear facilities facing financial difficulty.”<sup>5</sup> Under the NYPSC’s ZECs program, NYSERDA will

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<sup>2</sup> See *IPPNY v. NYISO*, 150 FERC ¶ 61,214 (2015). IPPNY’s original complaint was subsequently amended on March 28, 2014 (collectively, the “IPPNY Complaint”).

<sup>3</sup> See EPSA Request at 6 (summarizing additional measures urged by IPPNY).

<sup>4</sup> *Id.* at 2.

<sup>5</sup> Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard at 119, Case Nos. 15-E-0302, et al. (Aug. 1, 2016) (“NYPSC Order”). A copy of the NYPSC Order was included as Attachment A to the EPSA Request.

enter into contracts, each with a 12-year term ending March 31, 2029, to purchase ZECs from qualifying nuclear facilities.<sup>6</sup> ZECs contracts are to be awarded to a nuclear facility only “where there exists a public necessity to preserve the zero-emissions environmental attributes of” that facility.<sup>7</sup> In order to determine if a facility satisfies the “public necessity” test, the NYPS&C is to examine a number of factors, including, among other things, “the degree to which energy, capacity and ancillary services revenues projected to be received by the facility are at a level that is insufficient to provide adequate compensation to preserve the zero-emissions environmental values or attributes historically provided by the facility.”<sup>8</sup>

## **II. COMMUNICATIONS**

The name and mailing address of the person to whom correspondence and communications concerning these Comments on behalf of NEI should be addressed is:

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Vice President, General Counsel and Secretary  
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## **III. DESCRIPTION OF NEI**

NEI is the policy organization representing the commercial nuclear power industry. NEI’s mission is to foster the beneficial uses of nuclear technology and to communicate accurate information about the importance of nuclear energy and technology. NEI is responsible for developing industry positions and advocating on legal, regulatory, and policy matters affecting the nuclear energy industry. NEI has more than 350 members, spread across 17 countries, and its membership includes all the companies licensed to operate commercial nuclear power plants

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<sup>6</sup> *See id.* at 19-20.

<sup>7</sup> *Id.* at 124.

<sup>8</sup> *Id.*

in the United States, as well as nuclear plant designers, major architectural and engineering firms, entities that process nuclear fuel, and other organizations involved in the nuclear industry.

Consistent with its mission, NEI has worked actively to preserve existing nuclear generation as a key part of the nation's critical infrastructure. Nuclear plants are essential to maintain a highly reliable electric grid, retain a diversified energy portfolio to manage inherent production cost risks, and substantially and sustainably reduce carbon emissions in the face of a growing economy. Numerous merchant nuclear plants have been prematurely and permanently retired, and numerous NEI members have indicated that they are considering shuttering their merchant nuclear facilities if revenues do not support the continued safe operation of those facilities. NEI has a strong interest in preventing further premature closures.

#### **IV. MOTION TO INTERVENE**

NEI requests leave to intervene out-of-time in this proceeding. Good cause exists to grant NEI late intervention in this proceeding. On January 9, 2017, EPSA filed its Request for Expedited Action in this proceeding raising for the first time facts and arguments specific to the nuclear industry that had not previously been raised or addressed in the proceeding, and arguably could or should have been raised in a separate proceeding. In light of the request to expand the proceeding in this way, NEI now has an interest in this proceeding that did not exist previously and NEI cannot be adequately represented by any other party. NEI accepts the record as it stands and, therefore, granting of this motion to intervene out-of-time will not disrupt the proceeding nor prejudice or unreasonably delay the proceeding. Accordingly, granting NEI's motion to intervene out-of-time is in the public interest.

## V. COMMENTS

NEI's overarching interest lies in ensuring that all attributes of nuclear power are fully and fairly recognized in revenues for merchant nuclear facilities. The current organized wholesale power markets recognize and pay for only a portion of this critical infrastructure's attributes, principally nuclear power's capacity and energy. For a variety of reasons, some described in the IPPNY pleadings and the EPSA Request, wholesale market payments for those attributes are depressed from prices that would exist in a fully competitive market. In creating its ZECs program, New York clearly recognized that the highly desired attribute of zero-carbon emissions is not recognized in the NYISO market and has decided it is in New York's interest to recognize and have New York consumers pay for that attribute separately to preserve that value for its citizens.

NEI agrees conceptually with EPSA and IPPNY that wholesale market prices for capacity and energy should not be artificially suppressed in competitive organized markets, and supports solutions that ensure proper wholesale power prices to all resources. NEI opposes, however, any solution that would effectively deny nuclear power the same market prices for the capacity and energy it is delivering, whether or not it is receiving revenues for other attributes valued by New York. Accordingly, NEI urges that any relief ordered by the Commission in this proceeding not inhibit New York from exercising its authority to support the continued operation of nuclear power plants by valuing and paying for environmental attributes that are not recognized in the wholesale power market.

### **A. In the Absence of a Federal Solution, New York's ZECs Program is a Reasonable Response to the Challenges Facing New York Nuclear Plants**

The ZECs program is one of a handful of programs that the states have developed across the country to squarely address the demonstrable shortage of diverse, reliable zero-carbon energy

that has resulted or will result from the premature and permanent shutdowns of merchant nuclear facilities. Under the prevailing conditions of competitive wholesale power markets, more and more nuclear facilities will be lost for all time without state initiatives like the ZECs program to value separately from the wholesale power market the unrecognized attributes of nuclear power.

The current state of the wholesale electric markets has resulted in the continued, permanent shutdown of merchant nuclear facilities, causing an immediate and permanent loss of reliable, zero-carbon energy. Market distortions have led nuclear operators to prematurely shut down or announce plans to prematurely shut down more than 7,400 MWs of nuclear capacity.<sup>9</sup> The resulting shortage in zero-carbon energy potentially imperils the future reliability of the nation's electric grid and the ability of states and the country to meet existing carbon reduction commitments.

The challenge for merchant nuclear power is that, unless other revenue streams are created to recognize its many attributes, it depends on energy and capacity market revenues to sustain ongoing operations. For a number of reasons, though, some attributes are not reflected in the revenues realized by these units. For merchant nuclear facilities in New York, no separate revenue stream or value is available in the organized wholesale power market to account for the reliability benefits provided by their round-the-clock operations and on-site fuel capabilities, nor for the zero-carbon energy that they produce.

The inability to recover revenues for these special attributes is especially problematic within the competitive wholesale power markets, such as in the NYISO control area, where such

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<sup>9</sup> See Nuclear Energy Institute Comments on the Department of Energy's Quadrennial Energy Review (July 1, 2016) at 25 ("NEI QER Comments"). In addition to the closures and announced closures of Kewaunee, Vermont Yankee, Fort Calhoun, Pilgrim, and Diablo Canyon 1 and 2 noted in NEI's QER Comments, Entergy more recently announced plans to close Palisades, and Indian Point 2 and 3 for market-related reasons. See Entergy, NY Officials Agree on Indian Point Closure in 2020-2021: Decision Driven by Sustained Low Power Prices, available at <http://www.safesecurevital.com/entergy-ny-officials-agree-on-indian-point-closure-in-2020-2021>.

units operate as “price takers.” As price takers, merchant nuclear facilities must rely solely on market clearing prices in order to cover their substantial capital investment and the operating and maintenance costs required to maintain safe operations. In the capacity markets, clearing prices are depressed by assured revenue streams paid to certain new generators, as well as by the proliferation of demand response resources because of highly favorable Commission treatment of those resources. Similarly, energy clearing prices are depressed by, for example, tax credits paid to certain generators. Because nuclear units are wholly dependent on the clearing prices that they receive, how those clearing prices are established becomes critical.

It is contrary to the public interest to allow merchant nuclear facilities in these circumstances to prematurely and permanently shut down. With each merchant nuclear facility that shuts down, the nation irrevocably loses a reliable source of baseload generation, as well as the stability of energy diversity and the many other societal benefits provided by nuclear power, including thousands of highly skilled and high paying jobs. With every closure, the reliability of the nation’s electric grid becomes more vulnerable. A diverse portfolio of fuels and technologies—nuclear, coal, natural gas, hydro, non-hydro renewables, efficiency—is the core strength of the U.S. electric power supply system. This fuel and technology diversity serves as a hedge against price volatility and supply disruptions in any part of the portfolio. A 2014 analysis performed by IHS Energy demonstrated the value of fuel and technology diversity, finding that the current diversified portfolio of U.S. power supply *halves* the potential variability in monthly power bills compared to a less diverse supply.<sup>10</sup> IHS Energy further found that moving to a system with a less diverse supply (*i.e.*, one without significant contributions from nuclear generation) would increase average wholesale power prices by about 75 percent and retail power

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<sup>10</sup> IHS Energy, *The Value of US Power Supply Diversity* (July 2014) at 5.

prices by about 25 percent, price impacts that would reduce U.S. GDP by nearly \$200 billion and lead to roughly one million fewer jobs.<sup>11</sup>

As the electric grid becomes increasingly reliant on natural gas, the reliability and fuel diversity offered by nuclear power becomes even more important. With each premature closure of a nuclear plant, the bulk power system becomes even more reliant on natural-gas fired generation to provide baseload supply and to backstop intermittent renewable resources. Natural gas is widely used outside the power sector, and the demand from other sectors—particularly coincident end-user gas peak demand during cold winter weather—critically affects both gas prices and the gas providers’ ability to deliver gas to the power sector, which relies on interruptible transportation service to get its fuel. The abundance of natural gas resources aside, there are infrastructure constraints from time-to-time in parts of the country, particularly in the Northeast, that increase the systemic risk of relying too much on natural gas. With the ever-increasing reliance on natural-gas-fired generation, any interruption in the infrastructure can result in reduced energy generation and outages.

In short, states have recognized that the premature closing of productive nuclear facilities compromises fuel and technology diversity. That resulting reduction in diverse, round-the-clock production increases both the vulnerability of the electric grid to reliability risks and the price volatility experienced by consumers. As such, New York recognized that time is running out for nuclear power in its state. By providing relief to several of the state’s incumbent nuclear plants, the New York ZECs program preserves the benefits for New York that are not recognized in the NYISO markets, but are being counted on by New York to achieve its environmental goals.

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<sup>11</sup> *Id.* at 5-6.

## **B. New York's Pursuit of Policy Objectives that Recognize Nuclear Power's Zero-Carbon Attributes Should Not Be Disturbed by the Commission**

Continued operations of nuclear units not only has reliability benefits, it also provides environmental benefits as well. Nuclear power is the largest and most reliable source of zero-carbon energy in the country. The growing shortage of zero-carbon energy resulting from the shutdowns of such units will make it increasingly difficult if not impossible for New York to meet its near- and long-term carbon reduction goals. With each shuttered merchant nuclear plant, the chance to achieve future carbon reduction goals will become increasingly less likely and more expensive.<sup>12</sup> While renewable power remains a critical solution to reducing carbon emissions, that solution is only partial. As a practical matter, renewable resources *cannot replace* the substantial lost zero-carbon energy now produced by nuclear resources. To replace a single 1000 MW nuclear facility would require more than 960 new state-of-the-art, 400-foot-tall wind turbines or, alternatively, 25 square miles of photovoltaic panels.<sup>13</sup>

Looking at this issue nationally, all of the current utility-scale solar generation in the United States would need to be doubled just to replace the energy lost from the shutdown of a large two-unit nuclear station.<sup>14</sup> Even with the dramatic and continued growth in wind and solar generation, by some projections, it will take another 25 *years* of such growth before those renewable resources, all combined, can produce as much energy as nuclear plants produce today. More to the point, states are counting on renewable energy to *reduce* carbon emissions going

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<sup>12</sup> NEI QER Comments at 23-26. The loss of Vermont Yankee alone in New England increased carbon emissions for the region by five percent.

<sup>13</sup> See U.S. Nuclear Regulatory Commission, NUREG-1437, Supp. 49, Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Limerick Generating Station, Units 1 and 2, Final Report at 8-38, 8-44, 8-51 (Aug. 2014).

<sup>14</sup> See Wake-up Call, Improving the Economics of America's Nuclear Reactors, Comments as Written by Marvin S. Fertel, available at <http://www.nei.org/News-Media/Speeches/Wake-Up-Call,-Improving-the-Economics-of-America-s>.

forward, a goal that becomes potentially *unachievable* if it instead is used to replace increasing amounts of nuclear power that are lost as units succumb to the current market distortions.

New York has its own separate and independent goals established under New York law, including goals for substantial reduction in carbon.<sup>15</sup> To this end, ZECs assign a monetary value to a class of generation resources that provide service attributes that are not currently recognized by the wholesale markets. Absent a Federal solution, state-sponsored environmental initiatives, such as the New York ZECs program, are essential. These programs are akin to state-established renewable energy credit (“REC”) markets, which the Commission has previously recognized can lawfully coexist with the organized wholesale markets.<sup>16</sup>

**C. Merchant Nuclear Plants in New York Should Receive the Full Clearing Prices for the Energy Produced and Capacity Provided, in Addition to Any Payments They Receive for ZECs**

NEI opposes any solution in this proceeding that would not permit merchant nuclear plants in New York to receive for their energy and capacity the full clearing prices that all other resources receive in the competitive New York wholesale power market. The revenue stream for ZECs is for a separate attribute of nuclear power that is valuable to New York and for which New York has determined should be paid by New York consumers. NEI is open to market changes that would maintain fair and equitable clearing prices for *all* resources, including nuclear power. NEI, however, urges the Commission to reject proposals that would deny payments to merchant nuclear plants for their energy and capacity at the full clearing prices paid

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<sup>15</sup> See NYPSC Order at 2 & n.1 (describing New York’s goals to reduce statewide greenhouse gas emissions 40 percent by 2030 and 80 percent by 2050).

<sup>16</sup> See, e.g., *WSPP*, 139 FERC ¶ 61,061 at P 21 (2012) (“RECs are state-created and state-issued instruments certifying that electric energy was generated pursuant to certain requirements and standards. Thus, a REC does not constitute the transmission of electric energy in interstate commerce or the sale of electric energy at wholesale in interstate commerce”).

to all other resources. These payments for energy and capacity should be without regard to whether New York separately values attributes like zero emissions.

## **VI. CONCLUSION**

For the reasons set forth above, NEI respectfully requests that the Commission (1) grant its motion to intervene out of time in the above-captioned docket, (2) accept these Comments, and (3) ensure that merchant nuclear units in New York are paid fully in the wholesale power markets for their energy and capacity, in addition to their payments for ZECs.

Respectfully submitted,

Nuclear Energy Institute

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January 24, 2017

## CERTIFICATE OF SERVICE

I certify that I have this day served the foregoing document on all parties listed on the official service list in the above-captioned proceeding.

Dated at Washington, DC, this 24th day of January, 2017.

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