

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

**Proceeding on Motion of the Commission to Implement a
Large-Scale Renewable Program and a Clean Energy
Standard**

Case 15-E-0302

**PETITION OF INDEPENDENT POWER PRODUCERS
OF NEW YORK, INC., NEW YORK STATE BUILDING AND
CONSTRUCTION TRADES COUNCIL AND NEW YORK STATE
AFL-CIO FOR THE ESTABLISHMENT OF A ZERO EMISSIONS
ENERGY SYSTEMS PROGRAM UNDER THE CLEAN ENERGY STANDARD**

I. INTRODUCTION

Independent Power Producers of New York, Inc. (“IPPNY”), a not-for-profit trade association representing the independent power industry in New York State, New York State Building & Construction Trades Council (“NYSBCTC”), representing over 200,000 union construction workers across the State, and New York State AFL-CIO (“AFL”), a federation of 3,000 unions, hereby petition the New York State Public Service Commission (the “Commission”) to establish a new competitive program or tier under the Clean Energy Standard (“CES”) to encourage the development of zero emitting electric generating facilities that are not renewable energy systems, as defined in the Climate Leadership and Community Protection Act (“CLCPA”) pursuant to paragraph (b) of subdivision 1 of Section 66-p of the New York Public Service Law (“PSL”).¹ IPPNY member companies are involved in the development of electric generating facilities including renewable resources, the generation, sale, and marketing of electric power, and the development of natural gas and energy storage facilities in the State of

¹ See CLCPA, 2019 N.Y. Sess. Laws Ch. 106 (McKinney), § 4. The CLCPA became effective on January 1, 2020.

New York. IPPNY member companies produce a majority of New York’s electricity, utilizing almost every generation technology available today, such as wind, solar, natural gas, oil, hydro, biomass, energy storage, waste-to-energy and nuclear. NYSBCTC and AFL represent union workers employed in every aspect of the State’s energy infrastructure, including construction, generation, transmission, operations and maintenance.

Specifically, to assist meeting the CLCPA’s target of having the statewide electrical demand system be zero emissions by 2040, the Commission should establish, after an appropriate notice and comment period, a competitive program to encourage private sector investment in a minimum of one gigawatt (“GW”) of zero emissions energy systems that would commence commercial operation by 2030. The Commission should define “zero emissions energy systems” as systems, other than renewable energy systems, that generate electricity or thermal energy through the use of technologies that do not lead to a net increase in greenhouse gas emissions into the atmosphere at any time in the process of generating electricity.²

II. BACKGROUND

On August 1, 2016, in the above-captioned case, the Commission adopted the CES, which is comprised of a Renewable Energy Standard (“RES”) and a Zero-Emissions Credit (“ZEC”) requirement.³ The CES Order adopted a goal whereby 50% of electricity consumed in New York by 2030 would be generated by renewable energy sources (the “50 by 30 goal”) as part of a strategy to reduce statewide greenhouse gas emissions by 40% by 2030.⁴ To achieve the 50 by 30 goal, the Commission ordered all load serving entities (“LSEs”) in the State to serve

² The term “greenhouse gas” is defined by subdivision 7 of Section 75-0101 of the Environmental Conservation Law.

³ 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”).

⁴ *Id.* at 2.

their retail customers by procuring new “Tier 1” renewable resources, evidenced by the procurement of qualifying renewable energy credits (“RECs”)⁵ from the New York State Research and Development Authority (“NYSERDA”) or other sources, or by making Alternative Compliance Payments, in specified, annually-increasing proportions of their total loads.⁶ The Tier 1 mandate has been the core instrument by which the State incents the development of renewable resources to meet the State’s 50 by 30 goal.

The CES Order also included a Tier 2 maintenance program as part of the CES which offered financial support to existing eligible renewable facilities at risk of deactivating due to being uneconomic.⁷ Finally, the CES Order included the ZEC requirement as part of the CES, which mandates that LSEs procure ZECs from nuclear facilities in the State to fund their continued operation.⁸

On July 12, 2018, the Commission adopted its Offshore Wind Standard to incent the development of up to 2,400 MW of offshore wind capacity in New York State by 2030.⁹ The Offshore Wind Standard mandates LSEs to obtain, on behalf of their retail customers, Offshore Wind Renewable Energy Certificates procured by NYSERDA in an amount proportional to their load.

In 2019, the State enacted the CLCPA. The CLCPA requires the Commission, by June 30, 2021, to establish a program (the “Program”) to ensure (1) jurisdictional LSEs secure

⁵ RECs represent the environmental attributes, including but not limited to estimated avoided carbon dioxide emissions, associated with electricity generated by facilities that meet the Tier 1 eligibility criteria established in the CES Order.

⁶ CES Order at 78, 92–93, 109–110.

⁷ *Id.* at 115–117.

⁸ *Id.* at 147–150.

⁹ Case 18-E-0071, *In the Matter of Offshore Wind Energy*, Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement (July 12, 2018) (“Offshore Wind Order”).

adequate amounts of electricity generated by renewable energy systems to serve at least 70% of load in 2030 (the “70 by 30 Target”); and (2) “by the year [2040] (collectively, the ‘targets’) the statewide electrical demand system will be zero emissions” (the “2040 Zero Emission Target”).¹⁰ The CLPCA defines renewable energy systems as “systems that generate electricity or thermal energy through use of the following technologies: solar thermal, photovoltaics, on land and offshore wind, hydroelectric, geothermal electric, geothermal ground source heat, tidal energy, wave energy, ocean thermal, and fuel cells which do not utilize a fossil fuel resource in the process of generating electricity.”¹¹ The CLCPA also requires the Commission to conduct a biennial review, starting in 2024, of the Program, determining: “(a) progress in meeting the overall targets for deployment of renewable energy systems *and zero emission sources*, including factors that will or are likely to frustrate progress toward the targets; (b) distribution of systems by size and load zone; and (c) annual funding commitments and expenditures.”¹²

In an order issued on October 15, 2020, the Commission updated its CES to implement the 70 by 30 Target part of the Program.¹³ In its CES Modification Order, the Commission revised its CES by applying the existing regulatory and procurement structure it adopted to meet the 50 by 30 goal to satisfy the CLCPA’s 70 by 30 Target. Among other modifications, the Commission modified RES eligibility to conform it with the definition of renewable energy systems in the CLCPA, which differs from the eligible resources under the existing RES, modified the RES Tier 1 program granting NYSERDA flexibility to conduct annual Tier 1

¹⁰ PSL § 66-p(2).

¹¹ PSL § 66-p(1)(b). The CLCPA also requires the Commission to establish programs to achieve the deployment of 6 GW of photovoltaic solar generation by 2025, 3 GW of energy storage resources by 2030, and at least 9 GW of offshore wind by 2035. PSL § 66-p(5).

¹² PSL § 66-p(3) (emphasis added).

¹³ Case 15-E-0302, *supra*, Order Adopting Modifications to the Clean Energy Standard (Oct. 15, 2020) (“CES Modification Order”).

solicitations, beginning in 2021, in amounts necessary to achieve the 70 by 30 Target, added a new Tier 4 to the CES to encourage the delivery of renewable energy to New York City, and modified the Offshore Wind Standard to grant NYSERDA flexibility to conduct competitive solicitations for offshore wind to meet the CLCPA's statewide goal of 9 GW of offshore wind capacity by 2035.

The Commission has yet to update its CES to establish the 2040 Zero Emission Target part of the Program. IPPNY, NYSBCTC and AFL urge the Commission to do so now by developing a competitive zero emissions energy systems program to help ensure that target is met. Support for this type of program is evidenced by legislation, S.6497-A (Parker) / A.8094 (Cusick), which passed the New York State Senate unanimously (63-0) on June 9, 2021. The bill directed the Commission to establish a pilot program consistent with the provisions of this petition by a date certain to help ensure the State will meet the 2040 Zero Emission Target in a way that maintains electric system reliability. The CLCPA, through subdivision 2 of Section 66-p of the PSL, already gave the Commission the underlying legislative authority to establish the pilot program under this petition and the bill.

The Commission also should include quality-based contracting and labor provisions within the program as they are highly valuable in promoting successful project delivery, especially in light of the complexity and time sensitivity of affected projects. These provisions are also vital for the Just Transition envisioned by the CLCPA, in terms of prevailing wage, project labor agreements ("PLA"), and the Buy American provisions that will create and retain good paying union jobs in New York. IPPNY, NYSBCTC and AFL strongly support these labor provisions, and their applicability for a Just Transition and job creation under the program pursuant to this petition recently was evidenced by union support of Governor Andrew M.

Cuomo’s announcement that the New York Power Authority (“NYPA”) will undertake an industry-leading green hydrogen demonstration project at NYPA’s Brentwood natural gas peaker plant on Long Island to evaluate the resource’s potential role in displacing fossil fuels from dispatchable power generation.¹⁴ The Governor’s announcement points to the further need for, and appropriateness of, the program urged by this petition on a broader scale and basis.

III. RELIEF REQUESTED

A. THE COMMISSION SHOULD ESTABLISH A ZERO EMISSIONS ENERGY PROGRAM.

By establishing the 70 by 30 Target for renewable energy systems and requiring the remaining percentage of load be served with electricity generated by “zero emission sources,” the Legislature intended that zero emissions sources include sources other than renewable energy systems. Notably, the CLCPA does not define “zero emission sources,” leaving it to the Commission to establish this critical aspect of the CLCPA. The Commission’s CES Modification Order established policies and mandates to achieve the 70 by 30 Target but was silent on how the State should achieve the 2040 Zero Emission Target or even designate the types of resources that could be used to meet such target. Nor did the Commission state in the CES Modification Order when it would consider establishing policies to achieve the 2040 Zero Emission Target.

The Commission’s silence on these matters creates uncertainty in the electricity market and investment community, thereby potentially delaying, unnecessarily, the development of resources that are both zero emitting and capable of meeting electric system needs that cannot be

¹⁴ Press Release, New York State Governor’s Office, Governor Cuomo Announces New York Will Explore Potential Role of Green Hydrogen as Part of Comprehensive Decarbonization Strategy (July 8, 2021), <https://www.governor.ny.gov/news/governor-cuomo-announces-new-york-will-explore-potential-role-green-hydrogen-part>.

met fully by renewable energy systems due to their intermittence. As determined in a report recently prepared by Analysis Group for the New York Independent System Operator, Inc. assessing the potential impacts of system changes resulting from the CLCPA's mandates on electric system reliability in 2040, the timely development of fully dispatchable zero emitting resources is crucial to maintain reliability as the economy electrifies and reliance on intermittent renewable and duration limited resources increases.¹⁵

Because wind, solar, and limited-duration energy storage resources will be insufficient to meet electric demand in 2040, the Phase II Climate Study determined that removal of all the existing fossil-fueled generating resources by 2040 in compliance with the CLCPA's 2040 Zero Emission Target will require as much as 30,000 MW of installed capacity of new flexible and dispatchable resources to provide the necessary reliability services that have historically been provided by fossil-fueled generating resources.¹⁶ The Phase II Climate Study does not make any assumptions about what technology or fuel source can fulfill this role, focusing instead on the characteristics required of such resources. These resources must be highly flexible, *i.e.*, they must be capable of coming on quickly and meeting rapid and sustained ramps in demand.¹⁷

The Phase II Climate Study also determined that battery storage resources will help meet system needs when output from renewable resources is reduced, but sustained periods of reduced renewable generation rapidly deplete battery storage. The study assumed approximately 15,600 MW of storage would be added to the system by 2040 and determined that the contribution of

¹⁵ Paul J. Hibbard, et al., Climate Change Impact Phase II, An Assessment of Climate Change Impacts on Power System Reliability in New York State, Final Report (Sept. 2, 2020) ("Phase II Climate Study"), <https://www.nyiso.com/documents/20142/15125528/02%20Climate%20Change%20Impact%20and%20Resilience%20Study%20Phase%202.pdf/89647ae3-6005-70f5-03c0-d4ed33623ce4>.

¹⁶ *Id.* at 83.

¹⁷ *Id.*

storage would be quickly exhausted when the output from renewable resources is reduced for periods of days.¹⁸

The Climate Action Council, which was established by the CLCPA to develop a scoping plan to meet the CLCPA’s emission reduction requirements and targets, received an analysis agreeing with the need for new flexible and dispatchable resources. The Climate Action Council’s consultant, Energy and Environmental Economics, Inc. (“E3”), determined that “firm capacity resources will be needed to ensure year-round reliability, especially during periods of low renewables output,” to balance the substantial growth in intermittent resources like wind and solar.¹⁹ The E3 Report concluded that the State “can reliably meet growing electricity loads with 100% zero-emissions electricity by relying on a diverse mix of resources, including: onshore and offshore wind; large-scale and distributed solar; in-state hydro and existing and new hydro imports from Quebec; existing nuclear capacity; existing and new combined cycles (CC) and combustion turbines (CT) utilizing zero-emissions biogas; new natural gas-fired combined cycles with carbon capture and sequestration (CC-CCS).”²⁰ The E3 Report pointed to other studies that found that “complementing high penetrations of intermittent renewables with *firm, zero-emission resources*—such as bioenergy, hydrogen, carbon capture and sequestration, and nuclear generation—reduce total electric system costs under zero-emissions targets.”²¹

The E3 Report determined that, while “battery storage can provide sufficient short-term (intraday) flexibility to balance high levels of variable renewable output,” maintaining reliability

¹⁸ *Id.* at 1.

¹⁹ Energy and Environmental Economics, Inc., Pathways to Deep Decarbonization in New York State (June 24, 2020), at 37 (“E3 Report”), <https://climate.ny.gov/-/media/CLCPA/Files/2020-06-24-NYS-Decarbonization-Pathways-Report.pdf>.

²⁰ E3 Report at 33.

²¹ E3 Report at 38-39 (emphasis added).

requires long-duration (interday) resources, such as “large-scale hydro resources, renewable natural gas (RNG) or synthetic fuels such as hydrogen, Carbon Capture Storage (CCS), and nuclear power.”²²

The Power Generation Advisory Panel of the Climate Action Council also recognized the need for zero emissions energy systems that are dispatchable technologies in its May 3, 2021 recommendations to the Climate Action Council.²³ Its Initiative No. 10 recommends that the State “identify, explore, evaluate and develop dispatchable technologies as they emerge.”²⁴ The Panel recommended that, if a substitute is needed for natural gas, “advanced green hydrogen and possible [renewable natural gas] could fill this gap to maintain reliability, if scalability, feasibility, and environmental impact and air quality issues can be addressed.”²⁵

In light of the recommendations and analysis provided by the Phase II Climate Study, the E3 Report, and the Power Generation Advisory Panel, the Commission should act quickly to establish a program to incent the type of zero emitting technologies that will be needed to maintain reliability as progress is made towards the 70 by 30 Target and to meet the 2040 Zero Emission Target. IPPNY, NYSBCTC and AFL request that the Commission initiate a proceeding or establish a new tier under its CES to determine by July 1, 2022, after appropriate notice and comment, the zero emissions energy systems that are likely to be technically capable by 2030 of providing the operating flexibility and dispatchability to provide the necessary reliability services that have historically been provided by fossil-fueled generating resources to

²² E3 Report at 45.

²³ Power Generation Advisory Panel, Meeting 11, Climate Action Council (May 3, 2021), at 65, <https://climate.ny.gov/-/media/CLCPA/Files/2021-05-03-Power-Generation-Advisory-Panel-Presentation-Slides.pdf>.

²⁴ *Id.*

²⁵ *Id.* at 66.

meet the 2040 Zero Emission Target. The Commission should establish a competitive program to attract private sector investment in a minimum of 1 GW of such zero emissions energy systems in sufficient time to ensure these resources will commence commercial operation by 2030.

This commitment will help create a market for the kind of technologies that will comprise the up to 30 percent of remaining power generation technology needed to maintain reliability as progress is made toward achieving the 2040 Zero Emission Target. Having these new technologies enter into service by 2030 will allow operational experience to accumulate and provide an opportunity for any needed technology refinements to assure that all necessary resource additions are operating in time to achieve the 2040 Zero Emission Target.

B. THE COMMISSION SHOULD INCLUDE PROVISIONS WITHIN THE ZERO EMISSIONS ENERGY PROGRAM THAT PROMOTE SUCCESSFUL PROJECT DELIVERY AND FACILITATE A JUST TRANSITION FOR THE ENERGY WORKFORCE.

In establishing the competitive zero emissions energy systems program, the Commission should include quality-based contracting and labor provisions that build on the Just Transition policies that were enacted in this year’s State Budget for renewable energy systems pursuant to PSL Section 66-r and Section 224-d of the Labor Law, in terms of prevailing wage, PLA, and the Buy American provisions.²⁶ These policies will help ensure that assisted projects are built in a cost effective manner and meet applicable standards and critical construction and power generation schedules. These policies have been embraced in prior Commission decisions.²⁷ The Commission should require that the owner of the zero emissions energy system, or a third party

²⁶ See State Education, Labor, Housing and Family Assistance Budget Bill for the 2021-2022 State Fiscal Year, 2021 N.Y. Sess. Laws Ch. 56 (McKinney), Part AA, § 2-a.

²⁷ See, e.g., Offshore Wind Order (ruling “PLAs may be *particularly valuable* in the context of offshore wind procurements where time is of the essence. A PLA *helps to assure timely compliance with contract terms and deliver of power by the specified COD*” (emphasis added)).

acting on the owner's behalf, as an ongoing condition of any agreement with a public entity that implements the competitive zero emissions energy systems program, comply with the provisions of PSL Section 66-r and Section 224-d of the Labor Law. The Commission should also require that bona fide apprenticeship programs registered with the United States or New York State Department of Labor are utilized for the appropriate type and scope of work. Prevailing wage and apprenticeship training have similar positive project delivery effects as do PLAs. The former helps attract sufficient supplies of skilled craft personnel needed for projects, while the latter provides an effective means for verifying training credentials deployed to affected projects. In addition, all three policies have a long history of success in federal, state and local public works programs in New York State and have provided substantial assistance in building other types of power generation projects. Moreover, these policies are consistent with, and build upon, the Just Transition policies embedded in the CLCPA.

These labor provisions are consistent with the March 23, 2021 recommendations of the Just Transition Working Group to the Climate Action Council.²⁸ They would create and retain good paying union jobs in New York, spur local manufacturing and further New York's clean economy goals, help encourage the repurposing of existing facilities and incentivize private investment in new, zero carbon emission technologies that strengthen local communities. A Just Transition to clean energy can only occur if workers in the current industry are allowed to participate in the zero emissions energy future.

²⁸ Just Transition Working Group, Meeting 9, Climate Action Council (Mar. 23, 2021), at 8, <https://climate.ny.gov/-/media/CLCPA/Files/2021-03-23-Just-Transition-Working-Group-Presentation.pdf>.

IV. CONCLUSION

For the foregoing reasons, IPPNY, NYSBCTC and AFL urge the Commission to evaluate this Petition and grant the relief sought herein expeditiously.

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Respectfully submitted,

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