NYPA Renewables Conferral Report: 2024 Written Comments

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August 9, 2024
VIA EMAIL SUBMISSION
NYPARenewablesConferral@nypa.gov

New York Power Authority 123 Main Street White Plains, NY 10601-3170

To Whom It May Concern:

Alliance for Clean Energy New York (ACE NY) appreciates the New York Power Authority's (NYPA) efforts to engage stakeholders and consider comments as part of the 2024 conferral process related to NYPA's new authorities pertaining to the development of renewable energy generation in New York State. We continue to believe NYPA – as the nation's largest state public power organization, with 17 generation facilities and more than 1,550 circuit miles of transmission lines – can play a key role in helping New York State to achieve its ambitious clean energy goals as embodied in the Climate Leadership and Community Protection Act. We also think that NYPA, working closely with the State Department of Labor and other agencies, can play a key role in funding programs for workforce training and retraining to prepare workers for employment in the renewable energy field.

Our comments below address renewable energy generation and transmission, building and transportation electrification, workforce training, development, outreach and education.

Thank you for the opportunity to provide our comments and please do not hesitate to reach out if you have any questions.

Sincerely,

/s/ Marguerite Wells

Marguerite Wells
Executive Director
Alliance for Clean Energy New York

I. RENEWABLE ENERGY GENERATION & TRANSMISSION

We are generally supportive of NYPA's approach to consider public-private partnership opportunities with private developers to develop projects at the lowest cost to ratepayers, and to enable more projects to get built as a result of their participation. As illustrated by NYPA's Request for Qualifications earlier this year, there is considerable interest on the part of private developers and investors to collaborate with NYPA. Previously, we expressed concern that NYPA's foray into purchasing, constructing, and operating renewable energy projects, without competitive cost controls, could discourage private renewable development.

NYPA can be effective at tackling the significant transmission constraints that are hampering renewables deployment and when projects are built, are predicted to cause deliverability and curtailment problems. Thus far, NYPA has designated a few priority transmission projects since it was given the authority to do so by the New York State Legislature in 2021. The Smart Path and the Central East Energy Connect transmission projects are fine examples of the key role NYPA should take in developing renewables, and we urge NYPA to explore other ways it can build out the transmission system to better host renewable energy facilities, including the development of renewable energy interconnection hubs in strategic locations.

The Clean Path NY Project, selected as a Tier 4 project and awarded a contract by NYSERDA, is another public-private collaboration that NYPA could participate in in the future. Also, NYPA has the authority – granted by the Legislature in 2018, to develop offshore transmission infrastructure to facilitate offshore wind power. And NYPA is partnering with Consolidated Edison on the transmission project to bring the power from the Sunrise offshore wind project to Long Island. Again, we think that bold investment in new transmission facilities would be the best way that NYPA can leverage its expertise and creditworthiness and contribute to New York's achievement of climate goals.

ACE NY supports NYPA retiring its fossil fuel peaker power plants and utilizing these sites for renewable energy generation, energy storage, or interconnection of other renewables. Ideally, the development of these NYPA sites should consider the lowest cost option for rate payers. Therefore, NYPA should consider utilizing a competitive solicitation process with developers while considering in-house development.

ACE NY supports utilizing land owned by NYPA to expand renewable energy, especially if this land is not available to private developers.

II. BUILDING & TRANSPORTATION ELECTRIFICATION

Reaching 70% renewables by 2030 depends in no small part on how much power New Yorkers will be using that year; energy efficiency initiatives in all buildings are a major and critical part of the strategy to maintaining an even power demand through 2030. NYPA can have a huge role to play in advising, financing, and implementing deep building

retrofits in all publicly owned buildings in New York, from the village police station to New York City's City Hall to the Empire State Plaza in Albany to the entire expansive operations of the Department of Corrections. NYPA should not only continue its municipal energy efficiency programs but expand upon them.

NYPA has also been given an important role in building out the electric vehicle charging infrastructure in New York – another important part of meeting the Climate Leadership and Community Protection Act goals. New York's climate law goals also require the removal of carbon emissions from our transportation sector. Transportation electrification entails the construction of electric vehicle charging stations across New York State. In addition, New York's location, its interstate highway connections, and the emissions reduction goals of nearby states depend on a robust charging infrastructure located across New York State. With the formation of a diverse and dynamic charging industry that is active in the State, NYPA's EVolve NY program is no longer filling the role it was initially created for. NYPA should begin to wind down the program and focus any remaining station placements on those areas of the state where there are truly no other private sector developers. The State should leverage private investment for its charging infrastructure and reserve public funding for locations where there is a true public need.

The National Electric Vehicle Infrastructure (NEVI) program, created by the federal Infrastructure Investment and Jobs Act, helps fund the state installation of EV charging infrastructure. New York is currently in Phase I of NEVI, administered by NYPA, and will be unable to access Phase II funding to continue the program until Phase I is deemed complete by U.S. Department of Transportation. Advancement of the NEVI program is of the utmost importance to successfully reduce carbon emissions in New York State and will spur the increased adoption of EVs by reducing range anxiety. Vehicle emissions also significantly affect public health, with increased asthma and heart attack rates seen in those areas with high particulate matter pollution from diesel exhaust. The NEVI Phase I program funds chargers for light-duty vehicles, but the Phase II funds can be used to support charging infrastructure for medium-and-heavy duty vehicles. The use of Phase II funds to support the electrification of truck and bus fleets in metropolitan areas will reduce not only climate and pollution emissions but also hospital and doctor visits.

New York's climate goals and air pollution reduction actions hinge on transportation electrification, which in turn depends on completion of Phase I of the NEVI program. NYPA must complete the design and construction of EV charging stations in Phase I of the NEVI program as quickly as possible so that New York can then proceed to deploy additional EV charging infrastructure with access to the Phase II NEVI program funds.

Additionally, ACE NY encourages NYPA to market and increase enrollment in their municipal and school programs to support at-cost engineering and installation work of EV chargers. There is a need for widely accessible EV charging equipment to encourage the adoption of electric buses and cars by the government and the general public. The expansion of NYPA's school and municipal programs make it a prime candidate to lead the expansion of charging infrastructure.

III. CLEAN ENERGY WORKFORCE TRAINING & DEVELOPMENT

New York State needs trained professionals to achieve its clean energy goals. Regarding the authorization that NYPA received from New York State, ACE NY thinks that NYPA can play, and is playing, a significant role with respect to developing clean energy jobs, retraining programs, and careers for unemployed or displaced workers, as well as those in underserved communities.

For example, NYPA recently held an initial Clean Energy Workforce Training (CEWT) solicitation to establish a "diverse, equitable, and inclusive pipeline of skilled talent for the clean energy labor market." As it should, the CEWT is focused on pathways for employment in the clean energy field for residents of disadvantaged communities in the vicinity of NYPA sites. As stated in the Request for Proposal issued on July 3, 2024, "Projects funded through this solicitation are intended to build or expand NYS training infrastructure and capacity to develop and deliver clean energy Technical Training, hands-on experience, and job placement assistance to both new and existing Workers, as applicable, ensuring trainees have the skills, experience, and qualifications required to meet industry demand."

IV. OUTREACH & EDUCATION

We think there is an expanded role for NYPA to play with respect to renewable energy-related outreach and education. Such an initiative, in collaboration with NYSERDA, the NYS Department of State and other agencies, can help to convey to local municipalities and communities across the state the benefits associated with renewable energy. Further engagement, outreach, education and support for local municipalities, communities and residents will improve acceptance of energy delivery projects.

August 13, 2024

Hon. Justin Driscoll
President/CEO
New York Power Authority
123 Main Street
White Plains, NY 10601-3170

Re: Conferral Report Prepared by the Power Authority of the State of New York Pursuant to Public Authorities Law § 1005(27-a)(d) for Conferral Year 2024

Bloom Energy is grateful for the opportunity to submit comments on how we can most effectively and equitably build new renewable resources to support the State's efforts to advance its ambitious renewable energy goals provided for in the Climate Leadership and Community Protection Act, known as the CLCPA or the Climate Act.

About Bloom Energy

Bloom Energy is a manufacturer of solid oxide fuel cell technology that utilizes an electro-chemical process to power non-combustion microgrids as well as advanced electrolyzer systems capable of converting renewable electricity into "green" hydrogen. Our solid oxide fuel cells and electrolyzers are designed in a modular fault-tolerant format that provides mission critical reliability with no downtime for maintenance. Bloom Energy has installed over 1000 of its non-combustion solid oxide fuel cell systems for customers in thirteen U.S. states as well as in Japan, South Korea, India and Italy. Our systems have proven resilient through outages caused by hurricanes, winter storms, earthquakes, forest fires, and other extreme weather and natural disasters.

<u>Introduction</u>

Bloom Energy's comments today are focused on the potential for renewable biogas-powered fuel cells to contribute significantly to advancing the renewable energy goals set forth in the Climate Leadership and Community Protection Act (CLCPA). Biogas-powered fuel cells can assist New York's effort to reduce emissions and increase resilience, and can play an important role in meeting the state's renewable energy targets. Out comments highlight three key points: (1) biogas-powered fuel cells are "renewable energy systems" under the CLCPA, (2) on-site use for resilient power generation is a better use of New York's valuable renewable biogas resources than injection into gas pipelines for transport to distant markets; and (3) biogas fuel cells can provide a range of co-benefits for New York communities while furthering the objectives of the CLCPA.

Biogas-Powered Fuel Cells Qualify Under the CLCPA

All indications are that in order to achieve "zero emissions" by 2040, as required under the CLCPA, the state will need to deploy every available measure that meets the statutory definition of "renewable energy systems." PSL §66-p(1)(b), as added by the CLCPA, sets forth the following definition of renewable energy systems:

(b) "renewable energy systems" means 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 electricity¹.

The State's Clean Energy Standard (CES) is aligned with the CLCPA definition of renewable energy systems and includes all resources identified above². The fact that non-combustion fuel cells are the *only* qualified use of biogas for renewable electricity generation under the CLCPA speaks to some of the distinct environmental advantages of fuel cells: a highly efficient and energy dense technology that uses little space, virtually no water, and that nearly eliminates smog-forming air pollutant emissions compared to combustion-based generation. Fuel cells add diversity, reliability, resilience, and clean firm power to the electricity grid, complementing intermittent renewables like solar and wind while avoiding the harmful impacts of biogas combustion.

The vast majority of biogas is currently: (1) vented to the atmosphere; (2) burned in an engine or turbine for electricity generation; (3) flared without energy recovery; or (4) injected into gas pipelines for combustion uses. Biogas fuel cell power generation represents a fifth and under-utilized alternative that is environmentally superior and is also the only option of the five that is consistent with the CLCPA and the Clean Energy Standard. And because solid oxide fuel cells operate with an average capacity factor of 95%, they fill a critical need for baseload renewable energy that is not met by intermittent renewables alone.

There is also the consideration of "Time Value of Carbon" - the concept that GHG emissions reductions today are worth more than future reductions due to the escalating risks associated with the pace and extent of climate change and that those risks are not mitigated by deferred future emissions reductions. TVC is essentially a discount rate applied to carbon emissions and is the mechanism that explains why long-term climate goals with little short-term action are not as effective as actual near-term reductions. Fuel cell systems are often skid mounted and can be deployed far more rapidly than traditional renewables, allowing this unique form of CLCPA eligible renewable energy system to leverage the Time Value of Carbon while simultaneously addressing challenges like the 440MW shortfall of generating capacity that the New York Independent System Operator has identified for New York City starting as early as 2025.³

A Better Use of Biogas

According to data from the American Biogas Council⁴ and the US EPA's Landfill Methane Outreach Program (LMOP)⁵, New York State has the potential to generate approximate 180 billion cubic feet of biogas per year from existing waste sources such as landfills, wastewater treatment plants and livestock operations. Taking into account the high efficiency of solid oxide fuel cells, this volume of biogas translates to roughly 1.9 GW of fuel cell capacity. The utilization of biogas on-site is also far more beneficial at the global and local levels than injecting it into the gas pipeline network. The best way to

¹ See Section (b) of PSL §66-p(1)(b)

² Case 15-E-0302, Order Adopting Modifications to the Clean Energy Standard (issued October 15, 2020) (CES Modification Order).

³ https://www.utilitydive.com/news/new-york-city-faces-2025-power-shortage-up-to-446-mw/688335/?utm source=briefing&utm medium=email&utm campaign=energy am&utm content=072023

⁴ American Biogas Council, State Profile: New York. Available at: https://americanbiogascouncil.org/resources/state-profiles/new-york/

⁵ EPA Landfill Methane Outreach Program, Project Database: https://www.epa.gov/lmop/lmop-landfill-and-project-database

utilize this renewable fuel is to avoid pipeline injections and use the resource in the manner already identified by the CLCPA as the only eligible use in the electricity sector – direct use in non-combustion fuel cells for power generation.

Co-Benefits of Biogas Fuel Cells

The utilization of biogas for fuel cell power generation also creates a range of co-benefits for the surrounding community that are simply not created by flaring, combustion, or pipeline injection. In addition to the climate benefits, biogas-powered fuel cells offer a range of co-benefits when sited at critical facilities like wastewater treatment plants, anaerobic digesters, or food waste collection sites. A biogas-powered fuel cell project can provide the capital and expertise necessary to capture methane that would otherwise be vented, avoiding major global climate forcing impacts of vented methane. The operation of anaerobic digesters and the overall project development cycle can be expected to create jobs in the local community as well. Biogas fuel cell projects will also translate into avoided local air pollutants, reduced odors, and community quality of life improvements.

Capturing the biogas from waste streams offers a beneficial use of what is otherwise an environmental liability and threat to local health. Because fuel cells can be configured in a microgrid design, they offer valuable reliability to these critical facilities that are otherwise powered by high-polluting diesel generators during outages. Biogas fuel cell-powered microgrids can help mitigate the risk of unwanted sewage discharges by protecting the underlying facility from grid outages and obviating the need for diesel generator operations. During Superstorm Sandy in 2012, over 11 billion gallons of untreated or partially treated sewage entered waterways and streets across the region due to power outages. For context, this is more than 50 times the volume of BP Deepwater Horizon oil spill.

These factors converge to transform wastewater facilities from local environmental hazards into community assets that generate renewable power without harming air quality and are protected from outages and the associated risks.

Conclusion

For the reasons stated above, fuel cells that utilize renewable biogas are critical resources in achieving New York State's goal of effectively and equitably building new renewable resources to support the State's efforts to advance its ambitious renewable energy goals provided for in the Climate Leadership and Community Protection Act.

Thank you for the opportunity to provide input on this important issue and please do not hesitate to reach out if additional information would be helpful.

Sincerely,

Brian P. Noonan - Sr. Manager, Policy

Bloom Energy Corporation

⁶ https://www.climatecentral.org/news/11-billion-gallons-of-sewage-overflow-from-hurricane-sandy-15924



August 14, 2024

New York Power Authority

2024 Conferral Process

To Whom It May Concern:

Please accept these comments as the contribution of Bronx Council for Environmental Quality to the 2024 NYPA Conferral Process, pursuant to the 2023-24 NYS Budget Enactment. BCEQ is a 53 year old all-volunteer organization that "seeks to establish. . an aesthetic, unpolluted, environment protecting a natural and historic heritage." Our members have successfully advocated for the ecological restoration of the Bronx River and the Harlem River and for the largest green infrastructure project in New York City History, the Daylighting of Tibbetts Brook.

We contribute to the Conferral Process with pressing questions and concerns about the benefits, current and planned, of the 2019 Climate Leadership and Community Protection Act for vulnerable Bronx communities and particularly for the NYC-designated environmental justice areas contiguous to NYPA Harlem Yards and Hells Gate "peaker" plants. Though CLCPA states that its benefits for disadvantaged communities should be prioritized, we do not see benefits or priority given to South Bronx communities. A decarbonization shutdown of the Harlem Yards plant is scheduled for 2035—11 years from now, and 5 years after the CLCPA 70% decarbonization milestone of 2030.

Not all communities in New York State are host to NYPA power plants. The South Bronx has two. No longer used for "peak" demand, these plants have become operational necessities for daily usage, sending out power throughout the grid. Together with the federal highway system and waste disposal operations, this concentration of energy production overburdens the South Bronx with city, state, and federal critical infrastructure. And yet no CLCPA benefit is scheduled for 2030, its first milestone.

The South Bronx qualifies for prioritization under CLCPA under every possible definition of "disadvantaged." Its asthma rate makes the Bronx the most unhealthy county in New York State. 36% of its citizens live in poverty. Residents suffer a 49% rent burden and an unemployment rate 45% above the citywide average. And 27% of all Bronx citizens live in the South Bronx. What do they gain from CLCPA?

Our opposition to the current NYPA schedule for CLCPA compliance is a matter of public record. Together with South Bronx Unite and the law firm Environmental Justice, BCEQ circulated an open letter and contributed testimony to a 2023 hearing for the New York State Department of Environmental

Conservation (DEC) Draft Air Quality Permit Renewal of the Harlem River Yard "Peaker" Power Plan. BCEQ testimony on the Article V permit decision included the following statement: [Because the Harlem Yard peaker plant] is no longer used in emergencies or during peak usage . . . we [are] forced to conclude that decarbonization is for everyone *but* the most disadvantaged communities; and that the above-peak operation of the Harlem Yards plant will in fact enable reductions in the aggregate, and 70 by 30 statewide compliance. Under the CLCPA, the South Bronx is supposed to be prioritized, not leveraged." We stand by the demand for the shutdown of the Harlem Yards peaker plant under articles 7.2 and 7.3 of CLCPA before 2030.

Because NYPA operates two South Bronx carbon-emitting power plants on the Harlem River and Bronx Kill waterfronts, we draw special attention to the community benefit needs of the communities and the special responsibilities of public authorities operating in these communities. We support the greening of all NYPA physical plants and properties to mitigate temperatures and improve stormwater resilience. Disadvantaged communities in the South Bronx floodplain are in dire need of public authorities who act as good neighbors and commit to improving local environmental conditions not just on their ample properties but for the community. 70 by 30 is a goal for carbon emission but environmental improvements to NYPA plants and properties that improve air quality and improve flooding conditions need not wait.

Lastly, we urge NYPA to use its discretion under the 20231010 program to prioritize carbon reduction projects under CLCPA throughout the Bronx but particularly for the South Bronx communities where its two peaker power plants operate. Given the truck traffic and high concentration of logistics, warehousing, and distribution companies in this area, these communities should be on the fast track to receive electric vehicle charging and conversion. The 2023-24 Budget Enactment gives NYPA this authority, and the authority should seize the opportunity to do something good for the community that hosts its peakers. We submit this new goal for 2030: by that, no delivery truck should ever spew exhaust in that community again.

We thank you for this opportunity to contribute to the 2024 Conferral Process and look forward to working with constructively with NYPA to reach the environmental goals and benefits promised by the CLCPA.

Sincerely,

Robert Fanuzzi

Robert Fanuzzi, Ph. D.

President, Bronx Council for Environmental Quality



Tonja Wicks (857) 217-0289 Direct twicks@elevaterenewableenergy.com

August 21, 2024

Via electronic submission to NYPARenewablesConferral@nypa.gov

Justin E. Driscoll President and Chief Executive Officer New York Power Authority 123 Main Street White Plains, NY 10601-3170

Re: 2024 Conferral Process

Dear President Driscoll:

Elevate Renewables F7, LLC ("Elevate") respectfully submits the following comments for consideration during the 2024 conferral process being undertaken by the New York Power Authority (NYPA), in accordance with Public Authorities Law ("PAL") §§1005(27-a)(d) and (e), to discuss New York State's progress in meeting the renewable energy goals established by the Climate Leadership and Community Protection Act ("CLCPA") and to assist NYPA in its ongoing development of its strategic plan for executing its renewable energy generating priorities.¹

Introduction

As stated in previous submissions to NYPA, Elevate is a national developer focused on the development of grid-scale battery energy storage systems ("BESS").² Elevate has prioritized clean energy investments, primarily in historical environmental justice and disadvantaged communities, by planning to co-locate BESS at existing power plants.³ Elevate's focus is to modify these existing fossil fuel generating facilities (peakers, steam units, barges, etc.) and either co-locate, hybridize or replace these facilities to provide

¹ As stated in NYPA's first Conferral Report (November 2023), NYPA is seeking assistance from stakeholders in identifying and implementing potential renewable energy projects, with respect to "technologies, locations, [and] characteristics," including how to "avoid[] delays in the process moving forward," particularly with respect to interconnection. Conferral Report at 13.

² Elevate has been designated a pre-qualified renewable developer/investor to collaborate on renewable energy generation projects with NYPA. See Press Release, New York Power Authority Pre-Qualifies 79 Renewable Developers and Investors for Collaboration Opportunities: Stable of Qualified Entities Stands at the Ready to Help NYPA Implement Its Expanded Authority to Build Renewables and Help State Meet Its Nation-Leading Climate Action Goals (May 21, 2024).

³ Elevate has planned development of grid-scale energy storage systems co-located with existing generation facilities owned by private equity funds managed by ArcLight Capital Partners, LLC ("ArcLight"). These funds currently hold indirect ownership interests in approximately 25,000 MWs of electric generation nationally, with approximately 5000 MW in New York. Elevate is an affiliate of ArcLight.



immediate carbon emissions reductions, zero emission resources, or a combination of the two depending on the aforementioned configuration.

NYPA has a similar generating profile with existing facilities throughout New York. These facilities are optimal for the co-location of BESS, considering the relatively small footprint of BESS and its dispatchable characteristics.⁴

During the 2023 conferral process, NYPA held in-person or virtual meetings with a host of interested and affected stakeholders. We appreciate NYPA soliciting the views of interested parties to ensure its work to bring more renewables to New Yorkers is well-informed, effective and transparent.⁵ Elevate would welcome scheduling an in-person or virtual "conferral discussion" with NYPA, as part of the 2024 conferral process, to further opine on potential pathways NYPA may consider as it executes on its newly established renewable energy generation authority, advancing a strategy of repurposing NYPA's existing generating facilities by co-locating clean energy resources, including BESS, on its vast thermal generating properties.

Progress in Achieving CLCPA Mandates

As we know, the CLCPA requires that a minimum of 70% of statewide electric generation for end-use customers in the State of New York must be generated by "renewable energy systems" by 2030, and that "the statewide electrical demand system will be zero emissions" by 2040.6 In order to reach those targets, the CLCPA mandated that the New York State Public Service Commission ("PSC") establish clean energy programs that require the procurement of at least nine (9) gigawatts ("GW") of offshore wind electricity generation by 2035 and six (6) GW of photovoltaic solar generation by 2025, and support the development of at least three (3) GW of statewide energy storage capacity by 2030.7 Recognizing the ever increasing importance of energy storage, the 3 GW storage figure in the CLCPA has been increased by the PSC to six (6) GW, as part of the New York State Department of Public Service ("DPS") and the New York State Energy Research and Development Authority ("NYSERDA") jointly filed "New York's 6 GW Energy Storage Roadmap: *Policy Options for Continued Growth in Energy Storage* (the "Roadmap").8

The actions taken by New York State (including those of NYPA) to address the climate crisis have been laudable and bold. The CLCPA stands as landmark legislation and the State has been a leader in developing programs and incentives for decarbonization of the electrical grid. With all of its efforts, recent press articles have reported on the difficulties the State may have in meeting the CLCPA's renewable energy

⁴ As stated consistently, Elevate supports NYPA's expanded authority, provided in the **2023-24 Enacted State Budget and codified at** PAL §1005(27-a), to develop large-scale renewables and utility-scale storage projects, on its own and with private sector developers, to support the State's clean energy goals, create high-quality jobs backed by strong labor standards, and reduce costs for consumers. However, Elevate wishes to reiterate its position that, in order to ensure a competitive market, void of discrimination, and a market that achieves the lowest cost to customers, investor-owned utilities should not be allowed to own and operate renewable energy and battery storage systems in New York.

⁵ See fn. 1.

⁶ Public Service Law §66-p(2).

⁷ Public Service Law §66-p(5).

⁸ Case 18-E-0130, <u>In the Matter of Energy Storage Deployment Program</u>, Order Establishing Update Energy Storage Goal and Deployment Policy (Issued June 20, 2024).



mandates, particularly the first requirement of 70% renewable energy by 2030. The construction of offshore wind facilities upon which the mandates heavily rely has experienced significant delays. In addition, with the statewide Baseline Summer Peak Demand Forecast of 31,541 megawatts ("MW") presented by the New York Independent System Operator ("NYISO"), 9 reaching the 70% mark is even more arduous.

Reliability Contributions of Battery Energy Storage

The NYISO has stated that "[r]enewable energy generation, subject to sudden changes in weather, also provides new challenges to grid operators that must balance supply and demand in real time. These variables highlight the need for new generation technologies that can fill in when weather-dependent resources are unavailable." The NYISO identified in Appendix F of its 2023-2042 System & Resource Outlook Report ("Outlook") that battery energy storage could be a viable solution to address many projected shortfalls, stating that "numerous studies have shown that a system comprised of intermittent renewable energy generators and **short-duration storage** (*i.e.* 4—8 hour capacity) that cycle daily can economically meet demand in most hours across a year [emphasis added]." 11

In recent days, circumstances in Texas have underscored the importance of BESS to reliability. Due to extreme heat events in Texas, the Electric Reliability Council of Texas ("ERCOT") forecast the statewide peak energy demand for this month (August 2024) to be upwards of 86,000 MW, equaling or exceeding available resources.¹² As noted in an August 9, 2024 article from Renew Economy, in the wake of high electricity demand and trips from coal and nuclear facilities, BESS facilities were "able to respond in seconds and fill in the gap" providing over 3000 MW of capacity.¹³

However, as discussed above, a long-term solution to the variability problem requires new technologies as well. The NYISO introduced the concept of Dispatchable Emission Free Resources (DEFRs) in 2020 in the second phase of the NYISO Climate Study. In this context, NYISO anticipates that these new resources and/or new technologies must be "dispatchable, emissions-free, and able to respond quickly to changing grid conditions," and has identified that "[I]ong-duration energy storage could potentially serve the role of the modeled DEFRs in the Outlook [emphasis added]."¹⁴

It is therefore apparent that the Legislature, the NYISO, the PSC, and NYSERDA all agree that the expansion of energy storage resources is critical to increasing the capacity and reliability of renewable energy resources and to facilitate the retirement of aging thermal units.

⁹ NYISO, 2024 Load and Capacity Data (Gold Book) (April 2024)

¹⁰ NYISO, 2024 Power Trends (June 2024).

¹¹ NYISO, 2023-2042 System & Resource Outlook Report (July 23, 2024), Appendix F: Dispatchable Emission Free Resources (page 2).

¹² 2024-ERCOT-Monthly-Peak-Demand-and-Energy-Forecast.xlsx (live.com).

¹³ Parkinson, G. (2020, August 9), "Batteries Step In As Coal Plant Trips Amid Heatwave and Near Record Demand in Texas," Renew Economy, https://reneweconomy.com.au/batteries-step-in-as-coal-plant-trips-amid-heatwave-and-near-record-demand-in-texas/.

¹⁴ See fn. 11.



New York's Advancements in Procuring Clean, Battery Energy Storage Resources Should be Captured as Contributing to the 70% 2030 Renewable Target

Regardless of the recognized benefits of BESS, standalone energy storage (or storage co-located with thermal resources) has not traditionally been viewed in New York as a clean energy resource contributing to the 70% renewable target. The PSC noted in its 2016 order establishing the State's Clean Energy Standard ("CES") that "it is without question that modern markets must sufficiently and accurately value storage as a vehicle to design and optimize network planning and operations. However, as a reliability support and system optimizing resource, storage is not properly characterized as a standalone renewable energy resource under the CES. That being said, if the various mechanisms that the Commission is pursuing to ensure storage takes its rightful place as a critical resource for the modern grid prove insufficient, this topic will be revisited [emphasis added]." Perhaps this is the appropriate time to revisit the consideration of BESS as a clean energy resource under the CES.

Beneficial Co-Location of BESS With Existing Generation

In response to NYPA's request for recommendations for what to do with its existing generating facilities, Elevate believes that co-locating new battery storage generation at existing thermal generating units is the way to facilitate achievement of the CLCPA renewable energy goals, move the State closer to meeting its decarbonization goals, support reliability needs, and provide benefits to local communities. BESS provides real, direct, and quantifiable emissions reductions that will be realized immediately by local and state residents in New York, resulting in significant public health benefits and avoided social costs. ¹⁶ The emission reductions are not limited to carbon dioxide ("CO2") and other greenhouse gases but also include nitrous oxide ("NOx"), sulfur dioxide ("SO2") and fine particulate matter ("PM 2.5"). PM 2.5 has been shown to cause local adverse public health impacts, prevalent more in environmental justice and disadvantaged communities. ¹⁷

As longer storage duration projects are developed and retirements of thermal units continue, the environmental and public health benefits will increase substantially, not including the significant environmental benefits of redeveloping brownfields.¹⁸ Moreover, existing thermal generation facilities have important electrical interconnections (existing Capacity Resource Interconnection Service) that can

¹⁵ Case 15-E-0302, <u>Proceeding on Motion of Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard</u>, Order Adopting a Clean Energy Standard (Issued August 1, 2016).

¹⁶ See USEPA, Supplementary Material for the Regulatory Impact Analysis for the Final Rulemaking, Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review (November 2023), https://www.epa.gov/system/files/documents/2023-12/epa_scghg_2023_report_final.pdf; see also Heo, J., Evaluation of Air Quality Impacts on Society: Methods and Application (Carnegie Mellon, 2015) ("Estimating Air Pollution Social Impact Using Regression (EASIUR) Model," https://barney.ce.cmu.edu/~jinhyok/easiur/).

¹⁷ Section 7.3 of the CLCPA states, "In considering and issuing permits, licenses, and other administrative approvals and decisions...all state agencies, offices, authorities, and divisions shall not disproportionately burden disadvantaged communities...All state agencies...shall also **prioritize reductions of greenhouse gas emissions and co-pollutants** in disadvantaged communities [*emphasis added*]."

 $^{^{18}}$ The Inflation Reduction Act encourages locating renewable energy and energy storage projects on brownfields site through the IRA's "community energy" tax credit bonus. Internal Revenue Code $\S\S$ 45, 48, 45Y, 48E.



be repurposed with BESS, without incurring significant, new system upgrade costs or constructing expensive new substation infrastructure, thereby avoiding more emissions and significantly benefiting ratepayers.

Prioritizing Workforce Development is Essential

While not the central focal point of the conferral process report, Elevate commends NYPA for inviting commentary on the topic of workforce development. Training and workforce development within the local community and for the local community is not only important but essential to empower local disadvantaged communities and ensure that these communities are not left behind in the clean energy transition.

For reference, Elevate is endeavoring to execute on its vision of creating workforce opportunities for local communities by repurposing existing generating facilities instead of simply ceasing all generating activities at these sites and losing needed jobs. A successful workforce development program would create employment opportunities across the construction, manufacturing, and operation and maintenance sectors. These programs would provide training opportunities for existing staff and new employees from the community, with the aim to prepare them for highly skilled positions in the clean energy field. Furthermore, exposure to this new industry transition as early as possible can develop a deep workforce pipeline; hence, a qualified apprenticeship program would be a valuable addition to any workforce development program being considered. This workforce development strategy would allow NYPA to retain jobs, create new jobs, provide business contracting opportunities, and create a healthier environment for local residents of impacted, overburdened communities.

Recommendations for NYPA

With the duration and frequency of extreme weather increasing, energy storage has demonstrated its ability throughout the U.S. to provide grid stability, frequency control, and critical reliability services to the distribution and transmission systems. As part of NYPA's development of its 2024 strategic plan, NYPA should enhance its promotion of energy storage in its strategic plan because of the immense benefits these resources provide. Furthermore, NYPA should advance its proposed solicitation process or issue Requests for Proposals that build on NYPA's suggestion of co-locating renewable resources with its existing thermal generation in partnership with qualified developers, particularly focusing on battery energy storage co-located at NYPA's vast thermal generating facilities across the state of New York.

Energy storage adds value to the grid by firming up the integration of variable energy resources, such as solar and offshore wind, and enhancing grid resilience. Energy storage capacity will contribute to retaining the resource adequacy and reliability as aging thermal plants retire and are no longer available to operate as peaking units. Most importantly, co-location or hybridization of BESS with fossil fuel-fired power plants will reutilize brownfields sites and immediately reduce greenhouse gas emissions and other emission impacts from co-pollutants, providing direct benefits to disadvantaged communities where many of these facilities are located.

It is almost universally recognized that storage is critical for the transition from fossil fuel resources to renewable resources. The State cannot achieve its clean energy goals without storage. Therefore, battery storage, whether co-located with defined renewable resources or fossil fuel resources until they are retired,



should be considered clean energy contributing to achievement of CLCPA's renewable energy goals. BESS discharges its power without emissions, which has tremendous value locally and regionally. Energy storage should be included in the CES along with standard renewable resources. Only with storage will the State be able meet its clean energy goals.

Thank you very much for the opportunity to submit these comments to NYPA as part of its 2024 conferral process. We stand ready to discuss these important issues further with NYPA as it develops it strategic plan.

Respectfully submitted,

Tonja Wicks

Vice President, Regulatory Affairs

Elevate Renewables

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August 13, 2024

Via email at nyparenewablesconferral@nypa.gov

Mr. Justin E. Driscoll President and Chief Executive Officer New York Power Authority 123 Main Street White Plains, NY 10601-3170

Re: Follow-Up to NYPA Conferral with IPPNY on July 29, 2024 on Implementation of Build Public Renewables Law

Dear President Driscoll,

IPPNY appreciates a second opportunity to be included in NYPA's conferral process to assess how the Build Public Renewables Law could be implemented. Our recommendations are discussed in more detail below and are summarized as follows:

- NYPA should focus on competitively procuring renewables and energy storage instead of developing and owning those resources. NYPA's RFPs should be in partnership and cooperation with NYSERDA, in order to further advance NYSERDA's efforts to meet the CLCPA's targets.
- 2. NYPA should fund the long-overdue restoration of electricity, heating, ventilation, cooling, steam, or hot water to Disadvantaged Communities (DACs) by competitively procuring these services from energy services companies.
- 3. In terms of the 100 by 40 target, NYPA should issue an RFP for a hydrogen demonstration project at a facility of an independent power producer (IPP) as a way to share NYPA's experience from its successful hydrogen blending demonstration project at its Brentwood Small Clean Power Plant on Long Island.
- 4. NYPA should continue to focus on building new transmission lines to provide renewable energy from where it is generated to the locations where energy consumers can use it.
- Please share your thoughts on the State's progress toward CLCPA goals.

In November of 2023, IPPNY submitted a <u>letter</u> to NYPA to convey, in writing, our oral feedback during our 2023 conferral meeting. Our letter urged NYPA to coordinate its efforts with those of the PSC, which was required to evaluate progress toward the CLCPA's targets.

On July 1, 2024, DPS and NYSERDA issued a report, which discusses the status of achieving the CLCPA's target of having 70 percent of electricity generated by renewable energy systems by 2030 (70 by 30 target) and having the electricity sector be zero-emissions by 2040 (100 by 40 target). The document also reviews the status of the goal of 9 GW of offshore wind by 2035.

According to the report, in 2022, renewable energy resources supplied 25.1 percent of the State's electric load. Combined with nuclear generation, the total renewable and zero emission generation in New York amounted to 46.1 percent of statewide load. An additional 2,245 GWh



from a combination of solar, land-based wind, and offshore wind have become operational since 2022. As of June 1, 2024, for CES Tier 1, 752 GWh of projects are under development, and 3,959 GWh have contracts pending. 7,539 GWh of offshore wind are under development, and over 1,700 MW of offshore wind have executed contracts.

Additionally outlined in the document, the expected amount of renewable generation from operational and awarded/contracted sources in 2030 totals 73,292 GWh. 42,145 GWh would need to be procured to reach the 70 by 30 target. To fill the expected gap, three NYSERDA Tier 1 annual solicitations (in 2024, 2025, and 2026) will seek projects capable of deploying by 2030. As statewide load increases, the renewable energy needed to achieve the 70 by 30 target increases from 115,437 GWh to 120,673 GWh by 2033, meaning that the needed incremental deployment rises from 42,145 GWh to 47,381 GWh over that period. These resources would be procured through three additional NYSERDA solicitations through 2029 to enable Tier 1 deployment beyond 2030 to potentially 2033 or 2035, depending on demand scenarios. This trajectory would be updated by PSC program reviews in 2026 and 2028.

The status update indicates that progress toward the targets is affected by conditions in the larger global markets, such as supply chain issues, high interest rates, and inflation. The report acknowledges rising electricity demand due to electrification and energy intensive economic development investments. The document also proposes options for improving the Competitive Tier 2 program, the CES Tier 1 program, and the offshore wind program.

Regarding the 100 by 40 target, the report states that: "More fulsome consideration of the path to this goal is ongoing." IPPNY continues to lead the effort to have the PSC identify eligibility for zero emission sources to meet this target reliably.

Please share your thoughts on how NYPA can or should support the CLCPA.

To help implement the PSC's 2024 finding, NYPA should continue to focus on competitively procuring renewables and energy storage using long-term power purchase agreements that are public-private agreements, rather than NYPA developing and owning those resources. NYPA's RFPs should be in partnership and cooperation with NYSERDA to further advance NYSERDA's efforts to meet those targets.

NYPA should use its experience in serving its New York City Housing Authority (NYCHA) customers and expand the reach of its expertise to help energy consumers in DACs. Additionally, NYPA should fund the long-overdue restoration of electricity, heating, ventilation, cooling, steam, or hot water to DACs pursuant to a competitive procurement process. NYPA can carry out this high public policy purpose in a way that complements, and does not disrupt or usurp, the role of energy service companies, which are already providing these services statewide. In particular, NYPA should continue to issue RFPs to competitively procure these services from energy services companies.

Regarding the 100 by 40 target, NYPA could extend to IPPs its experience from successfully completing a hydrogen blending demonstration project, utilizing blends of 5 to 40 percent hydrogen with natural gas, at its Brentwood Small Clean Power Plant on Long Island. NYPA's issuance of an RFP for a hydrogen demonstration project at an IPP facility would help further practical experience with hydrogen, while the PSC continue to work to identify eligible zero emissions sources and to develop a competitive program to secure dispatchable emissions free resources.



Please share your thoughts on what NYPA is already doing to support the CLCPA.

NYPA is already performing its statutory role, given to it by the Legislature, for the advancement of new renewable energy projects. That role is building new transmission lines to provide the renewable energy from where it is generated to the locations where energy consumers can use it. NYPA should continue to focus on that important mission.

Do you have anything else you would like to share for the record?

If NYPA were to build and operate renewable energy systems and energy storage on its own, NYPA would face the same challenges as IPPs within the global markets and from rising demand. The question is, why would it make sense for NYPA and its ratepayers to be exposed to the increased risk from which wholesale competition among IPPs shields electricity consumers? If NYPA were to acquire, own, and develop renewable energy and energy storage projects, it would unfairly subject its ratepayers to costs and risks (including, but not limited to, environmental, regulatory, and operational risks) that now are borne solely by renewable energy and storage companies.

NYPA's customers would be responsible for paying all costs of such projects, as recovery of all NYPA's costs from its ratepayers is a guaranteed requirement through its bond covenants. This would include NYPA's more than 1,000 customers, from local and state governments (such as NYCHA, New York City government, the Metropolitan Transportation Authority, Westchester County government and numerous municipalities and school districts), to large and small businesses and non-profit organizations (such as colleges, universities, and hospitals) that currently rely on NYPA's favorable energy rates.

To compound the difficulty that NYPA faces, the costs of implementing the CLCPA and the Build Public Renewables Law are not known. Although NYSERDA's Integration Analysis looked at the total potential costs and potential economic and non-economic benefits of the Climate Action Plan, as required by the CLCPA, this macroeconomic examination of societal costs and benefits did not examine the additional costs and risks of NYPA developing and owning renewables and energy storage versus continuing to have IPPs develop and own such projects.

The PSC's October 12, 2023, order affirmed its 19-year policy that competition controls the costs of supporting renewable energy generation and yields "cost-effective outcomes for ratepayers, in part by allocating risk to generation project developers and operators." As the PSC's order correctly concluded, "competitive solicitations remain the best mechanism" to establish just and reasonable rates and to meet the CLCPA's targets. Thus, NYPA should continue to conduct competitive procurements to assist the efforts of NYSERDA to meet the CLCPA's targets.

NYPA does not have solar and wind experience, and it does not have large-scale solar and wind projects; instead, its CLCPA compliant resources are hydroelectric plants and energy storage at the Blenheim-Gilboa Pumped Storage Power Project. Private renewable energy companies have built, and will continue to build, solar, wind, and energy storage facilities to meet the CLCPA's target.



In closing, I appreciate the opportunity to provide these comments and to help NYPA shape its implementation of the Build Public Renewables Law through competitive procurement, while protecting its ratepayers. Private investment, ingenuity, and competition have always been, and will continue to be, the most efficient ways to accomplish our energy benchmarks.

All the best!

Sincerely,

Gavin J. Donohue President & CEO

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August 14, 2024

Comments on New York Power Authority's Renewables Conferral on behalf of Gary A. Abraham, Esq.; Benjamin E. Wisniewski, Esq.; and Ginger D. Schroder, Esq.

The undersigned are attorneys who, among us, have over 30 years of experience representing municipalities and community groups in siting or permitting large-scale renewable energy projects under SEQRA, and before the PSL Article 10 Siting Board and the state Office of Renewable Energy Siting (ORES). Please accept the following comments solicited by NYPA regarding the following questions:

- 1. Please share your thoughts on the State's progress toward CLCPA goals.
- 2. Please share your thoughts on how NYPA can or should support CLCPA.
- 3. Please share your thoughts on what NYPA is already doing to support CLCPA.
- 4. Do you have anything else you would like to share for the record?

* * *

1. THE STATE'S PROGRESS TOWARDS CLCPA GOALS

New York State has not made meaningful progress towards CLCPA goals. This is well documented in credible public agency reports. The State's irrational pursuit of excessive wind and solar energy generation has led to disastrous environmental consequences, public unrest, and only increased its reliance on fossil fuels. Continued investment in wind and solar to the exclusion of reliable baseload, load-following and dispatchable low-carbon sources (such as nuclear, hydropower, geo-thermal) will not change this trend. An all renewables electrical grid is inherently unstable, cannot provide reliable power and will substantially increase the cost of power for both taxpayers and ratepayers.

Recent reports by the state Department of Public Service (DPS), the State Comptroller, and NYISO acknowledge that the 2030 CLCPA goal to achieve 70% of New York's grid-provided electricity with renewable energy cannot be met. Based on these reports, over 50 business, energy and labor organizations have called on the State to undertake "a realistic assessment of the GHG [greenhouse gas]

¹ NYS Dep't Public Service, "Draft Clean Energy Standard Biennial Review" (July 1, 2024), filed in PSC Case No. 15-E-0302, *Clean Energy Standard*; NYS Comptroller, Report 2022-S4, "Climate Act Goals—Planning, Procurement and Progress Tracking (July 2024), https://www.osc.ny.gov/state-agencies/audits/2024/07/16/climate-act-goals-planning-procurements-and-progress-tracking; NYS Comptroller, "Economic and Policy Insights New York State's Clean Energy Fund" (July 2024), https://www.osc.ny.gov/files/reports/pdf/clean-energy-fund.pdf; NYISO, "Zero Emissions by 2040 Technical Conference" (December 11-12, 2023) (presentation on currently unavailable "dispatchable emissions-free source" necessary to achieve CLCPA goals), filed in PSC Case No. 15-E-0302.

emission reduction impacts of existing state initiatives". The reasons the State cannot achieve the CLCPA goals are structural and indicate that large-scale renewables (wind + solar + batteries) are approaching their maximum ability to contribute to the state's decarbonization goals. After more than two decades of aggressive incentives, New York currently provides less than seven percent of its electricity from wind, solar and batteries. DPS optimistically projects that New York can achieve 45% of its electricity generation with renewables, but most that will be from hydropower.

These recent reports also show that the CLCPA goals are aspirational goals and policy objectives rather than legal mandates. The state Public Service Commission "has not started to address all current and emerging issues that could significantly increase electricity demand and lower projected generation." A Scoping Plan to achieve the CLCPA goals has been developed, but no credible fiscal or engineering analysis was ever presented to support the plan. No cost/benefit analysis was performed, and none is planned. As discussed below, the structural obstacles to achieving the CLCPA goals principally with renewable energy cannot be overcome, and they mean that continued efforts to achieve those goals will progressively damage the grid and make energy unaffordable, 6 with potentially existential consequences for some. 7

France, Sweden and Ontario managed to decarbonize their grids in two decades while maintaining affordable reliable electricity and growing their economies by utilizing the same resources New York has: hydropower and nuclear power.⁸ The CPLPA's emphasis on wind⁹, solar and batteries is an outlier,

- 2 See The Business Council of New York State, "Final CLCPA sign on letter" (July 30, 2024), https://www.bcnys.org/news/statement-regarding-clcpa-letter-calling-answers-key-policy-concerns.
- 3 NYISO, *Power Trends 2024*, 49, https://www.nyiso.com/power-trends>.
- 4 NYS Dep't Public Service, "Draft Clean Energy Standard Biennial Review", 56; NYISO, Power Trends 2024, 49.
- 5 NYS Comptroller, "Climate Act Goals—Planning", 1.
- For example, in 2018 the lowest-earning 10% of all U.S. households spent 36.3% of their income on energy, according to a U.S. Bureau of Labor Statistics' Consumer Expenditure Survey. U.S. Bureau of Labor Statistics, "Consumer Expenditures in 2018", (May 2020), https://www.bls.gov/opub/reports/consumer-expenditures/2018/home.htm. Transitioning to intermittent resources exacerbates inequity as it results in a significant burden being placed on the most economically challenged households. Rising energy costs, as seen for more than a decade in California, are an inescapable burden upon the poor. R. Bryce, "The High Cost of California Electricity Is Increasing Poverty", The Foundation for Research on Equal Opportunity (July 2020), https://freopp.org/the-high-cost-of-california-electricity-is-increasing-povertyd7bc4021b705.
- A recent report from Cornell University confirms that there will be an energy shortfall of between 59% and 89% in Zones J (New York City) and J (lower Westchester) if the CLCPA is implemented as planned. These two zones contain approximately 60% of New York State's population. V. Liu, et al., "Heterogeneous Vulnerability of Zero-Carbon Power Grids under Climate-Technological Changes", *arXiv: Physics and Society* (July 2023) (v2), https://doi.org/10.48550/arXiv.2307.15079.
- Indeed, the Province of Ontario is canceling wind projects and embracing an aggressive build-out of nuclear power. Mike Crawley, "Doug Ford government spent \$231M to scrap green energy projects", CBC News (November 19, 2019); Matthew McClearn, "What the death of Ontario's green energy dream can teach other provinces about the challenges ahead", The Globe & Mail (June 1, 2020). China has 55 nuclear reactors in operation, and 26 nuclear power units under construction. Darrell Proctor, "China Starts Construction of More Reactors as Part of Rapid Nuclear Buildout", Power magazine (July 29, 2024), https://www.powermag.com/china-starts-construction-of-more-reactors-as-part-of-rapid-nuclear-buildout/.
- Robert Bryce, a well-known energy commentator, notes that a recent study, published in *Environmental Research Letters* and coauthored by a post-doctoral fellow (Lee Miller) and a physics professor (T. David Keith) at Harvard

followed only by California and Germany, where the program has been a clear failure.

The grid was built for large, centralized generating plants, including nuclear power plants that operate almost around the clock. Adding weather-dependent, unreliable renewables that lack fuel (wind and sunlight) half the time and operate at a fraction of their design capacity requires unprecedented levels of grid management, including fossil-fueled backup power¹⁰ and new local, regional and long-distance transmission capacity. It should be axiomatic that hardening the grid to extreme weather by relying principally on weather-dependent renewables is a technological challenge. Simply changing New York's date for doing so to 2033, is a prescription for repeated failure.

2. HOW NYPA CAN OR SHOULD SUPPORT CLCPA.

NYPA cannot fulfill its mission if it supports CLCPA's focus on intermittent and unreliable renewables—wind and solar. NYPA must lead the way on nuclear, now.

NYPA's mission, to provide inexpensive public power, is obstructed by New York's "two grids" problem. Siting a handful of new nuclear power stations can solve the two grids problem by bringing power generation closest to where it is needed. Siting large-scale renewables only exacerbates the two grids problem, since land and water in the amount needed for wind and solar is scattered throughout New York and far offshore, 11 requiring substantial and prohibitively expensive new transmission capacity. 12

Current climate modeling, as reported by the Intergovernmental Panel on Climate Change and the International Energy Agency, refutes the false premise that climate change is an "existential" threat requiring immediate action without regard to cost benefit analysis. Global average temperatures are likely to increase to between 2 and 3 degrees Centigrade by 2100,¹³ affording NYPA adequate time to

University, demonstrates that wind energy's "Achilles Heel" is its paltry power density. The Harvard University authors found that the average power density—meaning the rate of energy generation divided by the encompassing area of the wind plant -was up to 100 times lower than estimates by some leading energy experts. Miller and Keith concluded that solar panels produce about 10 times more energy per unit of land as wind turbines-a significant finding-but, as Bryce notes, their work deserves attention for two other reasons--it uses real world data, rather than models, to support its conclusions and it conclusively shows that wind energy's power density is far lower than the Department of Energy, IPCC and numerous academics have touted. "The ongoing push for 100-percent renewables, and, in particular, the idea that wind energy is going to be a major contributor to that goal, is not just wrongheaded-it's an energy dead end." Bryce, "Why Wind Power Isn't the Answer" City Journal, Manhattan Institute for Policy Research (January 29, 2019).

- 10 NYISO has determined that four dual-fuel backup ("peaking") generators in New York City must remain in operation for at least two years beyond their scheduled deactivation date of May 1, 2025, finding that energy storage alternatives are insufficient to keep the lights on. NYISO, "Short-Term Reliability Process Report: 2025 Near-Term Reliability Need", https://www.nyiso.com/documents/20142/39103148/2023-Q2-Short-Term-Reliability-Process-Report.pdf/; Power Trends 2024, 20.
- 11 Offshore wind (which also requires substantial new transmission capacity) is unlikely to obviate the need for new low-emissions generation provided by nuclear power. No offshore renewable energy credits have been generated, and the future of offshore wind in New York is questionable. *See* NYS Comptroller, "Climate Act Goals", 15.
- 12 See PSC, CES Modification Order (October 15, 2020), 78 (finding that "absent new transmission capacity, the addition of new upstate renewable developments will fail on its own to increase the penetration of renewable energy consumed in New York City to a level that enables statewide compliance with the 70 by 30 Target.").
- 13 Intergovernmental Panel on Climate Change (IPCC), Sixth Assessment Report, Vol. WG1, The Physical Science

adapt to potential changes while developing an effective strategy for achieving the state's emissions goals with an all-of-the above strategy, primarily hydro- and nuclear power, with limited support from wind and solar resources in appropriate locations.

NYPA should focus on the CLCPA's technology-neutral zero-emissions electricity 2040 climate goal and the 2050 "net zero" goal for the state economy as a whole. Multiplying the state's nuclear capacity may substantially advance the 2040 and 2050 goals (but cannot contribute to the 2030 goal). A technology-neutral energy policy to reduce emissions will result in less renewables and more nuclear because neither NYPA nor the state's private utilities are able to effectively deliver renewable energy to an existing grid that has been designed and built to operate under the large centralized generating plant model. Indeed, a program to achieve the State's emissions goals primarily with hydro- and nuclear power would make it unnecessary to re-make the grid to accommodate renewables.

NYPA should renew the licenses of its existing operating reactors and plan for the deployment of additional modern nuclear power plants throughout the state. It is the fastest way to decarbonize New York. Just as statewide carbon emissions climbed overnight when Indian Point closed, ¹⁴ reviving plant operations would decrease New York's emissions as soon they come online. The premature and illadvised shuttering of Indian Point, which provided 25% of the region's electricity, has had a disastrous impact on the State's goal of achieving zero-emissions and is another example of public officials pandering to activists who are more concerned with the optics of clean energy than a reduction in carbon emissions. NYPA's advocacy for nuclear could help change the State's current focus on wind and solar projects.

A shift in focus to nuclear and hydropower would also significantly reduce the amount of land devoted to energy generation, and avoid the substantial adverse environmental impacts created by excessive wind and solar generation capacity. Large-scale renewables are expected to provide up to "half of the renewable energy procured to meet the 70% Climate Act goal." To achieve that requires the destruction of about a million acres of carbon-sequestering forest and farmland, to be replaced with wind turbines, solar panels and their infrastructure. These lands must be sacrificed for 55 gigawatts of solar panels (all made in China) and 10 GW of mostly foreign-made onshore wind.

In addition to environmental impacts, over-reliance on wind and solar technologies are likely to adversely impact the larger economy, as they rely heavily on substantial direct subsidies and massive investments in batteries, transmission and backup generation. Direct subsidies include federal tax credits and state Renewable Energy Credits (RECs). Under the federal Inflation Reduction Act (IRA), Renewable Electricity Production Tax Credits (PTC), "receive an inflation-adjusted credit of 2.6 cents

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Basis (2021), 238-239, https://www.ipcc.ch/report/ar6/wg1; International Energy Agency (IEA), "Net Zero Roadmap: A Global Pathway to Keep the 1.5° C Goal in Reach: 2023 Update", Figure 2.3, https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach. Cf. Roger Pielke Jr., Matthew G. Burgess and Justin Ritchie, "Plausible 2005–2050 emissions scenarios project between 2 °C and 3 °C of warming by 2100", 17 Environ. Res. Lett. 024027 (2022) (discussing the above-referenced IPCC and IEA reports). See also IPCC, Sixth Assessment Report, Vol. WG1, The Physical Science Basis, 1856, Table 12.12 (indicating that no signal has emerged from the natural variability of climate change for most extreme weather events).

¹⁴ Oliver Milman, "A nuclear plant's closure was hailed as a green win. Then emissions went up", *The Guardian* (March 20, 2024), https://www.theguardian.com/environment/2024/mar/20/nuclear-plant-closure-carbon-emissions-new-york.

¹⁵ NYS Comptroller, "Climate Act Goals", 14.

per kWh [\$26 for each MWh generated] for the first 10 years of electricity generation." The PTC thus allows electricity from wind turbine projects to be sold into the market at a price of *negative \$25 per MWh* and still be profitable. The IRA made the 10-year PTC permanent after decades of reauthorizations which had already resulted in wind energy projects bidding negative numbers into the wholesale market for electricity. The PTC is the single most expensive energy-related tax expenditure in the federal code, expected to cost \$276.6 billion between 2024 and 2033.¹⁷

New York can be expected to follow the trend across the nation, where the most negative pricing for electricity occurs where wind and solar penetration are greatest. The PTC incentivizes waste (since the subsidy is available even when the electricity generated isn't needed) and the premature closure of reliable generators of electricity (who can't compete). The cost to taxpayers is roughly the cost of renewable energy without the PTC, or about \$32 per MWh. After 10 years, a wind or solar project can requalify for another 10 years of PTC support by replacing major components—well before the end of their useful life. The tax incentive has driven such "repowering" projects, which occur when wind projects are 9 to 16 years old, with a median age of 10 years. These market dynamics shift the cost of generation from wind and solar generators and ratepayers to federal taxpayers, and progressively destabilize the grid. This is a perfect example of privatizing profits while socializing losses.

New York adds a substantial layer of subsidies with RECs, the cost of which are paid by ratepayers. Each REC represents one MWh of electricity generated by a wind or solar facility. RECs are awarded by NYSERDA to large-scale renewables in return for a promise to generate. There are no costs for RECs borne by the sponsor of a renewable energy facility. New York's projected annual electricity demand is at least 200 million MWh by 2040. Since one REC represents one MWh, 200 million RECs will be required each year. If RECs cost \$20 each, the amount New Yorkers must provide in order to subsidize 100% of electricity demand with RECs is \$4 trillion in 2040. Since the cost of RECs has not been

¹⁶ U.S. Dep't of Energy, "Advancing the Growth of the U.S. Wind Industry: Federal Incentives, Funding, and Partnership Opportunities", 2, https://www.energy.gov/sites/default/files/2023-02/weto-funding-fact-sheet-feb-23.pdf.

¹⁷ U.S. Dep't of the Treasury, "Tax Expenditures", https://home.treasury.gov/policy-issues/tax-policy/tax-expenditures>.

¹⁸ See Lawrence Berkeley National Laboratory, "Exploring Wholesale Energy Price Trends" (May 20, 2021), https://emp.lbl.gov/news/new-data-tool-explores-trends>.

¹⁹ U.S. Dep't of Energy, "Land-Based Wind Market Report: 2022 Edition", 50, https://www.energy.gov/eere/wind/articles/land-based-wind-market-report-2022-edition.

²⁰ Id., 31.

²¹ NYISO, "2023-2042 System & Resource Outlook" (July 23, 2024), 30, https://www.nyiso.com/documents/20142/46037414/2023-2042-System-Resource-Outlook.pdf.

²² The most recent RGGI auction (June 5, 2024) sold RECs for \$21.03. See https://www.rggi.org/auctions/auction-results/prices-volumes>.

²³ This excludes the cost of new transmission capacity, the roughly 75% discount on local sales and property taxes for renewables (provided under typical PILOT agreements), and subsidies for residential solar energy. For the latter, *see* Norman Rogers, "Useless Residential Solar Electricity", *RealClearEnergy* (July 30, 2024), https://www.realclearenergy.org/articles/2024/07/30/useless residential solar electricity 1048193.html.

procured by the State,²⁴ the entire cost of the program will fall on ratepayers and taxpayers. Many New Yorkers will pay twice, once as a ratepayer and again as a taxpayer.

In addition to the cost of RECs and other subsidies, renewables are likely to face increasing interconnection costs imposed by utilities to ensure "grid reliability and safety to prevent arc flashes, wildfires or injuries to line workers." In Virginia, for mid- and large-scale solar projects, Dominion Energy requires costly upgrades for a "direct transfer trip" which automatically disconnects a system. The upgrades "include[] laying a dark fiber optic transmission line to a substation at a cost of \$150,000 to \$250,000 per mile and in some cases adding a relay panel that runs \$250,000 for projects exceeding 250 kilowatts, raising costs by 20 to 40 percent."²⁵

The cost of needed transmission upgrades also includes expected steep increases in the cost of copper, driven by the CLCPA's policy to increase end-use electrification.²⁶

New York's grid is expected to become winter peaking as a result of increasing electrification, and this will add further costs. Eventually, ratepayers will need to subsidize baseload and backup power in order to keep a high-renewables grid stable. Wind and solar cannot ensure their performance will achieve planned capacity factors.²⁷ Wind and solar droughts are certain, and solar provides very little energy during the winter. These resources are therefore unable to keep up with demand growth, particularly in the winter. As other jurisdictions have found, demand growth requires more, not less dispatchable generation.²⁸ None of these costs would occur but for the cost of firming the grid to make up for wind and solar intermittency.

Achieving New York's emission reductions goals with renewables also requires yet-to-be-

²⁴ NYS Comptroller, "Climate Act Goals", 14.

²⁵ Jim Morrison, "Va. went all in on solar. Then its powerful utility changed the rules", *Washington Post* (May 27, 2024), https://wapo.st/4dT2bzB>.

²⁶ *Cf.* International Energy Forum, "Copper Mining and Vehicle Electrification" (May 2024), https://www.ief.org/focus/ief-reports/copper-mining-and-vehicle-electrification. Note that the Climate Action Council's *Final Scoping Plan* (December 2022), at 123, 179-180, calls for approximately 1 to 2 million homes electrified with heat pumps by 2030 and approximately 3 million zero-emission vehicles (predominantly battery electric) sold by 2030. Available at https://climate.ny.gov/resources/scoping-plan/.

Annual capacity factors relied on for planning purposes by NYISO are 12.89% for land-based wind, 15.64% for solar, and 31.56% for offshore wind. NYISO, "Final Capacity Accreditation Factors for the 2024/2025 Capability Year", https://www.nyiso.com/documents/20142/41593818/Final-CAFs-for-the-2024-2025-capability-year.pdf. Today, actual annual generation of electricity in New York by wind is 4,110.4 GWh, while nuclear generates 13,285,581.9 GWh and hydropower generates 28,674.7 GWh. NYISO, 2022 Goldbook, Table III-3c, https://www.nyiso.com/documents/20142/2226333/2022-Gold-Book-Final-Public.pdf. For illustration, the 6.4 square mile Palo Verde Nuclear Generating Station in Phoenix, Arizona, generates 244 times as much electricity—reliably—than a 1,600 square mile wind energy facility. Ken Braun, "The biggest wind energy project on this side of the Earth and its tiny power output", Substack (April 6, 2024).

²⁸ In 2023 Texas mandated baseload and backup power subsidies to address grid instability caused by increased penetration of wind and solar power. Texas Senate Bill No. 2627. The same function is served by ZECs for nuclear power in New York; and California's Civil Nuclear Credit Program, which awarded \$1.1 billion to extend the life of the Diablo Canyon Power Plant. S.B. No 846 (September 2, 2022). "Despite California adding more renewable energy, it is still having issues during peak demand times, which has led the state to ask residents not to charge their cars or lower the temperature on their air conditioning." NYS Comptroller, "Climate Act Goals—Planning", 16.

demonstrated "dispatchable emissions-free technologies" (DEFR),²⁹ including long-term energy storage technology.³⁰ However, PSC has yet to seriously address this problem.³¹ Examples of DEFR (none of which are commercially available) include "long-duration batteries, small modular nuclear reactors, hydrogen-powered generators, and fuel cells."³² Without these sources, NYISO suggests that the limit for renewables in New York has been reached: further penetration of renewables without substantial DEFR (assuming that fossil-fueled backup will continue to be deactivated)³³ is projected to cause reliability crises.³⁴

Nuclear power can be developed in New York as fast or faster than DEFR. China is building 30 new nuclear plants and may be "10 to 15 years ahead of the US in its ability to deploy fourth-generation nuclear reactors at scale", demonstrating that "it's possible to make large strides toward clean, around-the-clock energy using existing nuclear technology—if accompanied by generous financial terms, consistent state support and rigorous safety standards." Government efforts to accelerate the deployment of nuclear power have emerged around the world in the last two years. NYSERDA Chair Doreen Harris stated recently that nuclear power is an "advanced area of commercial viability, as opposed to some of the other resources that we see on the technical horizon at this point". 37

²⁹ NYISO, *Power Trends 2022* (in addition to local and long-distance transmission capacity additions, and in addition to long-term electricity storage—neither of which is projected to exist in time—significant amounts of yet-to-be-invented on-demand, zero-emission flexible generation that can back up the weather-related intermittency of renewables will needed to achieve the 2030 and 2040 Climate Act goals).

³⁰ See PSC Case 18-E-0130, In the Matter of Energy Storage Deployment Program (June 20, 2024), 28-30 (adopting a goal of 6 GW of electricity storage capacity, including 3 GW of "bulk level" (i.e., utility-scale) storage by 2030, and over 4 GWs of 8-hour storage by 2035. NYPA is building two 12-hour storage demonstration projects expected to be operational in 2028. American Public Power Association, "NYPA to Participate in Energy Storage Demonstration Using Fire-Safe Battery Technology" (July 25, 2024), https://www.publicpower.org/periodical/article/nypa-participate-energy-storage-demonstration-using-fire-safe-battery-technology.

³¹ NYS Comptroller, "Climate Act Goals", 14.

³² NYISO, "2023-2042 System & Resource Outlook" (July 23, 2024), 8-9, https://www.nyiso.com/documents/20142/44646498/03b_Draft%2520Report_2023-2042 System Resource Outlook.pdf

³³ For example, the proposed NY-HEAT Act would eliminate existing gas services for end-users. Section 7 of the Act acknowledges gas service may be limited or discontinued to facilitate achievement of the CLCPA climate justice and emission reduction goals; Section 8 grants PSC the authority to order the curtailment or discontinuance of the use gas for any customer or section of the gas distribution system in order to implement state energy policy; and Section 11 removes the entitlement to continuation of gas service following the demolition and reconstruction of any structure owned by a customer. See Senate Bill S2016A, https://www.nysenate.gov/legislation/bills/2023/S2016/amendment/A>.

³⁴ NYISO, "2023-2042 System & Resource Outlook", 47-48.

³⁵ Bloomberg News, "China Is Rapidly Building Nuclear Power Plants as the Rest of the World Stalls" (August 7, 2024), https://www.bloomberg.com/news/articles/2024-08-07/what-china-can-teach-the-world-about-nuclear-power?srnd=markets-magazine-v2.

³⁶ Sama Bilbao y León, Director General, World Nuclear Association, "Nuclear energy in 24/7 carbon-free energy systems: meeting the moment", *Energy Connects* (July 18, 2024), https://www.energyconnects.com/opinion/thought-leadership/2024/july/nuclear-energy-in-24-7-carbon-free-energy-systems-meeting-the-moment/.

³⁷ Tim Knauss, "New nuclear power will be on the agenda when NY officials hold energy summit in Syracuse", *Syracuse.com* (August 8, 2024), https://www.msn.com/en-us/weather/topstories/new-nuclear-power-will-be-on-the-agenda-when-ny-officials-hold-energy-summit-in-syracuse/ar-AA10iP5h.

Developing nuclear power is substantially less expensive than developing wind and solar power. As noted, renewables require large system costs to reliably serve electricity demand (including DEFR). This requirement flows directly from renewables' unreliability. Nuclear power does not require such system costs. This makes nuclear power less expensive than using wind, solar, battery storage, gas-fired backup power, and substantial transmission upgrades. In addition, nuclear does not require load balancing using battery or alternative emissions-free technologies. When the fact that renewables last only 30 years and must be repowered one or more times during that period, while nuclear reactors are permitted for 40 years and can be renewed for another 40 years, the cost difference between renewables and nuclear widens even further. While the upfront capital costs of a nuclear plant are high, once the capital costs are paid, the only costs are fuel and operating expenses. As a result, nuclear provides reliable service at a substantially lower cost than wind, solar, and battery storage.³⁸

Nuclear plants' small footprint, compared to large scale renewables, has a far less damaging effect on the State's natural resources and environment. One only need consider the impact of a single blade failure in Nantucket, to understand the significant adverse impacts that such projects can have on the environment.³⁹

NYPA should focus on bulk transmission that connects upstate power sources to the downstate grid, and transmission support for converting shuttered power plants (*e.g.*, Jamestown, Somerset) to nuclear. For example, Constellation Energy and Pennsylvania officials are considering state funding to restart of part of Constellation's Three Mile Island power facility, the site of a nuclear meltdown in the 1970. ⁴⁰ A cryptomining company has signed a memorandum of understanding to replace hydroelectric energy with a portable nuclear microreactor at a decommissioned coal power plant in the City of Niagara Falls. ⁴¹ Micron Technology is building a chip factory in the Syracuse area because the proposed site has access to Oswego County nuclear energy. ⁴²

The CLCPA emissions reduction goals can be achieved with a handful of new nuclear power plants. Unlike renewables, new transmission needed for new nuclear plants should be minimal.

³⁸ *Cf.* Matthew L. Wald, "Dollars, Sense, and Kilowatt-Hours", *Breakthrough Institute* (May 2, 2023), https://thebreakthrough.org/issues/energy/lcoe-lazard-misleading-nuclear; Isaac Orr and Mitch Rolling, "Why Nuclear is Cheaper than Wind and Solar", *Cornwall Alliance* (July 17, 2024),, https://cornwallalliance.org/2024/07/why-nuclear-is-cheaper-than-wind-and-solar/. Backup power for renewables cannot be avoided regardless of how much renewables penetrate the grid because unpredictable renewables cannot energize the grid with baseload power.

³⁹ Owen Klinsky, "Bunch Of Suits Trying To Cover Their Tracks': Beach Town Locals Slam Offshore Wind Developer For Polluting Shores", *Daily Caller* (July 18, 2024), https://dailycaller.com/2024/07/18/nantucket-locals-slam-offshore-wind-developer/.

⁴⁰ Laila Kearney and Jarrett Renshaw, "Constellation talking to Pennsylvania on Three Mile Island restart, sources say", *Reuters* (July 2, 2024), https://www.reuters.com/business/energy/constellation-talking-pennsylvania-three-mile-island-restart-sources-say-2024-07-02/.

⁴¹ Dan Swinhoe, "Nano and Blockfusion hope to deploy nuclear microreactors at Niagara Falls data center", *The Critical Power Channel*, https://www.datacenterdynamics.com/en/news/nano-and-blockfusion-to-deploy-nuclear-microreactors-at-niagara-falls-data-center/. *See also* Steve Buchiere, "Wayne County Board of Supervisors push for new nuclear facility", *Finger Lakes Times* (July 19, 2024), https://www.fltimes.com/news/wayne-county-board-of-supervisors-push-for-new-nuclear-facility/article_283b3a2a-443f-11ef-8f49-c760c57e9372.html>.

⁴² Nuclear Newswire, "Senate committee discusses growing energy demands, nuclear's role" (May 22, 2024), https://www.ans.org/news/article-6066/senate-committee-discusses-growing-energy-demands-nuclears-role/.

Decommissioned power plants already have the needed transmission capacity. Additional nuclear plant sites can be selected based on their proximity to existing or upgraded transmission capacity. Moreover, nuclear power plants provide high-paying jobs. In contrast, virtually no new permanent positions are created by industrial solar or wind projects. Maintenance is generally provided by out-of-area specialists. The small footprint of a nuclear power plant, the ability to utilize existing transmission infrastructure, and the local employment nuclear power plants provide should avoid most of the opposition to siting new generation and transmission capacity. Such opposition has and will continue to make the siting of large-scale renewables and the transmission infrastructure they require, at least at the scale projected to meet the CLCPA's 2030 renewables goal, increasingly challenging.⁴³

In summary, NYPA should reject entrenched ideological bounds limiting acceptable decarbonization technologies. Neglecting to consider nuclear power leaves the potential for effective pathways to decarbonization unexplored. The undersigned have all been heavily involved in the State's efforts to site new wind and solar generation and transmission capacity. It is painfully obvious that wind and solar have already reached their maximum positive potential. The favored sites for new renewable generation have mostly been taken, diminishing the potential for contributing to the CLCPA goals by this pathway. We therefore urge NYPA to support the CLPCA by pursuing new nuclear and hydropower generating capacity, rather than continuing to pursue the fantasy of an electric grid powered primarily by intermittent and unreliable wind and solar energy.

3. HOW NYPA IS ALREADY SUPPORTING THE CLCPA.

For the reasons set forth above, NYPA's current focus on increasing wind and solar generation capacity, and creating associated new transmission lines and substations, should be abandoned for technical, environmental, and economic reasons. Furthermore, detailed system modeling for the benefits of Clean Path NY should be developed, focusing on how much upstate electricity the originating substation at Delhi can provide, and where among the NYISO regions that electricity is generated.

4. CONCLUDING REMARKS.

There are compelling reasons to undertake feasible programs to decarbonize New York. Intensive oil and gas drilling causes environmental degradation (*e.g.*, land drainage, landscape alteration, tectonic movements, and oil spills on land and at sea). The burning of petroleum products often emits toxic substances that can degrade both interior and exterior environments. It may even be reasonable for the state government to conclude that New York has a moral obligation to reduce carbon emissions in light of New York's vanishingly small contribution to anthropogenic global climate change. The undersigned therefore support New York's efforts to prioritize low emission energy sources.

However, there is growing evidence that New York's over-emphasis on wind and solar generation is damaging the grid, the environment and the economy. The state's heavy handed energy siting programs administered by the Public Service Commission, the Siting Board, and ORES, have also led to

⁴³ *Cf.* Mary Katherine Wildeman and Melina Walling, "Wind farms' benefits to communities can be slow or complex, leading to opposition and misinformation", *AP News* (July 25, 2024), https://apnews.com/article/wind-turbines-farms-power-taxes-misinformation-rural-ed60fdf6e0e6577797035b1f1f1d2f20 (opponents complain that "people's taxes don't go down, and wind farms take away from an area's natural beauty").

significant public unrest and loss of faith in whether such agencies are serving the public interest, or something else. We therefore implore NYPA to reject unsubstantiated arguments about the benefits of politically favored energy technologies like wind and solar energy. The reality is that wind and solar energy, when pursued to excess, hinder economic development, waste public resources, and degrade large amounts of land. This makes the impact of renewables virtually indistinguishable from the fossil fuels they are replacing.

The global energy crisis precipitated by the invasion of Ukraine, Covid, and supply chain constraints have little to do with the constraints on New York's ability to implement the CLCPA. The physical reality of how the grid works predated these events and will remain with us for the foreseeable future. It was true before the global energy crisis, and it will remain the case that an electric system that relies primarily on weather-dependent resources will not be more resilient and will not be able to better withstand extreme weather events than a grid that is built around reliable sources of energy.

Electricity demand in New York and neighboring jurisdictions will only grow for the foreseeable future, and carbon emissions worldwide are climbing.⁴⁴ If we want to substantially reduce the need for fossil-fuel infrastructure, we will need to maintain our current fleet of nuclear reactors and vigorously and quickly support new nuclear power development. We therefore urge NYPA to support the CLPCA by pursuing new nuclear and hydro generating capacity, rather than continuing to pursue the fantasy of an electric grid powered by excessive amounts of intermittent and unreliable wind and solar energy.

Respectfully submitted,

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⁴⁴ Energy Institute, "2024 Statistical Review of World Energy", 16, https://www.energyinst.org/statistical-review>.



NYPA 2024 Conferral Process: Policy Recommendations and Considerations for Developing New York Public Renewables

On behalf of the New York Conference of Mayors (NYCOM), the New York State Association of Counties (NYSAC), and the Association of Towns (AOT), we appreciate the opportunity to participate in the New York State Power Authority's (NYPA) 2024 Conferral Process.

Local governments are integral to the statewide effort to combat and adapt to a changing climate. Actions taken at the local level, such as electrifying vehicle fleets, retrofitting buildings for energy efficiency, and promoting community solar projects, not only advance the goals established by the Climate Leadership and Community Protection Act ("CLCPA") but also demonstrate the practical benefits of transitioning to a greener economy. Moreover, these local actions and initiatives rely on a sustainable and resilient energy infrastructure.

Our feedback is informed by the experiences of our members, which include cities, villages, towns, and counties across New York State. As nonpartisan organizations dedicated to supporting local officials, we offer these recommendations to ensure that renewable energy projects align with local needs and contribute to broader state goals.

Overview

NYCOM, NYSAC, and AOT are committed to promoting a sustainable, equitable, and community-oriented approach to the development and siting of renewable energy facilities under the New York Public Renewables program. While we recognize the critical role that renewable energy plays in combating climate change and advancing the state's environmental goals, we must emphasize the necessity of balancing these objectives with the needs and priorities of local communities. Our perspectives and advocacy are grounded in the principles and constitutionally protected requirements of municipal home rule, which uphold the rights and autonomy of local governments to manage their own affairs, particularly in land use and development decisions.

Local siting considerations and influence over the siting of renewable energy generating and transmission facilities is crucial. Local oversight helps ensure that the unique characteristics, needs, and priorities of each community are respected and integrated into the planning process. Local governments are better equipped to address potential conflicts and promote harmonious development that benefits both the environment and local residents than developers and agencies that may not appreciate the particularities and nuances of a community.

We also highlight the importance of Community Benefit Agreements (CBAs) and Payment In Lieu of Taxes (PILOTs). These mechanisms are vital for ensuring that the communities hosting renewable energy projects receive fair and adequate compensation. CBAs and PILOTs can provide critical funding

for local infrastructure improvements, public services, and community development initiatives, thereby offsetting any potential disruptions or burdens caused by the renewable energy projects. These alternative funding streams also serve as a way to foster goodwill and support among local residents, enhancing the overall success and acceptance of renewable energy initiatives.

In light of these principles, we urge NYPA to incorporate the following considerations into their renewable energy project planning and implementation processes. By doing so, NYPA can ensure that the development of renewable energy projects not only advances New York State's renewable energy goals but also aligns with the interests, values, and well-being of local communities across the state. This collaborative and community-focused approach will lead to more sustainable, equitable, and widely supported outcomes, fostering a stronger and more resilient future for all New Yorkers.

Key Considerations

1. Home Rule and Local Input

NYPA should consider and honor the requirements of Home Rule by ensuring that local governments retain substantial control over the siting of renewable energy and transmission projects within their jurisdictions. Local governments are best positioned to understand and manage the unique needs and priorities of their communities.

Respect for Local Jurisdiction

Article IX of the New York Constitution, often referred to as the "Home Rule" provision, grants local governments significant authority to govern their own affairs and enact local legislation. This constitutional empowerment underpins New York's commitment to decentralized governance, by allowing municipal corporations to exercise control over matters that directly affect their communities.

In the context of renewable energy siting, Article IX plays a crucial role by ensuring that local governments have the authority to influence and regulate the placement and development of renewable energy projects within their jurisdictions. This is particularly important given the diverse geographical, environmental, and socio-economic conditions across New York State. A one-size-fits-all approach to renewable energy siting may not account for the nuanced impacts that such projects can have on different communities. Therefore, the ability of local governments to tailor regulations and policies to their specific contexts is essential for achieving balanced and equitable outcomes.

Consultative Processes

NYPA should establish a structured consultative process that involves local officials and community stakeholders from the earliest stages of project planning. In particular, NYPA needs to coordinate closely with local governments when determining where to make its investments in renewable energy and grid modernization. This process should include regular updates, public hearings, and mechanisms for local feedback, ensuring that the community's voice is integral to decision-making. This collaboration is crucial to ensure that NYPA's investments align with local zoning, planning priorities, and the specific needs of each community.

Local governments have a deep understanding of their unique community characteristics and development goals, making their input invaluable in identifying the most appropriate sites for renewable energy projects and necessary grid enhancements. NYPA's coordination with local authorities can help avoid conflicts, minimize environmental impacts, and ensure that the benefits of renewable energy projects are maximized for the local community.

Engaging local government leaders in this manner supports the principles of accountability and responsiveness. As local officials are directly elected by and accountable to their constituents, they are more likely to be responsive to local concerns. This receptiveness can foster greater public trust and acceptance of renewable energy projects, as residents see that their local government is actively involved in ensuring that the projects align with the community's interests and values.

2. Community Benefit Agreements (CBAs) and Payment In Lieu of Taxes (PILOTs)

NYPA should facilitate the negotiation of CBAs or PILOTs that provide fair compensation to local communities hosting renewable energy facilities. These agreements should reflect the scale and impact of the projects, compensating for any disruptions or burdens placed on local infrastructure and services.

Ensuring Fair Compensation

Renewable energy projects, while important and necessary to achieve the goals of the CLCPA, can have significant impacts on local communities. These include disruptions during construction, increased traffic, noise, and potential changes to local landscapes. Fair compensation agreements can help fund necessary upgrades or expansions to accommodate these changes and mitigate negative impacts.

CBAs and PILOTs should be carefully tailored to reflect the scale, scope, and impact of the renewable energy projects. Larger projects, such as extensive wind farms or solar arrays, often have more significant effects on local communities, potentially leading to increased wear and tear on roads, changes in land use, additional demand for municipal utilities like water and solid waste disposal, and shifts in local economic patterns. The agreements should be scaled accordingly, ensuring that the compensation provided is commensurate with the size of the project and the level of disruption or burden it imposes.

Targeted Local Benefits

In many cases, the influx of workers and equipment associated with renewable energy projects can increase demand for infrastructure improvements and put additional pressure on local public services, such as schools, healthcare facilities, water and sewer service, and emergency response teams. CBAs can include provisions for direct investments in these services, ensuring that they are adequately equipped to handle the increased demand.

For both CBAs and PILOTs to effectively target local benefits, their implementation must be strategic and informed by a deep understanding of community needs. This requires early and ongoing engagement with local stakeholders, including residents, businesses, and civic organizations. By involving these groups in the negotiation process, NYPA and developers can ensure that the agreements reflect the community's priorities and deliver benefits that are truly valued.

Transparency and Accountability

To maximize the impact of CBAs and PILOTs, transparency in their terms and accountability in their execution are crucial. This framework not only builds trust but also ensures that the agreements remain aligned with evolving community needs.

NYPA should establish oversight mechanisms to ensure that promised benefits are delivered in a timely and efficient manner that includes (1) an assessment of the estimated costs that will result from the construction and operation of the renewable energy facility for each taxing jurisdiction (e.g., police, fire, emergency response, water, sewer, solid waste disposal, and highway maintenance); (2) detailed terms

that outline specific benefits, timelines, and responsibilities of each party; (3) monitoring and reporting mechanisms to track the delivery of promised benefits and assess their impact on the community; and (4) involving the community by inviting local stakeholders to the negotiation process to ensure that the agreements genuinely reflect the community's needs and priorities.

3. Environmental and Social Considerations

Renewable energy projects offer significant environmental benefits by reducing reliance on fossil fuels and lowering greenhouse gas emissions. However, the development of these projects must also be undertaken with a strong commitment to minimizing their own environmental impacts. This involves a comprehensive approach that includes careful site selection, the implementation of best practices in construction and operation, and proactive measures to mitigate any potential adverse effects on the environment. Additionally, when environmental impacts are unavoidable, CBAs can play a crucial role in funding or facilitating environmental preservation or restoration efforts to offset these effects.

Minimizing Environmental Impact and Proactive Measures to Mitigate Adverse Impacts

Projects should be located where they will cause the least harm to the environment, including minimizing their footprint on agricultural land, which is critically important to New York State's economy and food security. Siting renewable energy projects on prime farmland should be avoided to protect the state's agricultural productivity and preserve the character of our rural communities. Developers should instead prioritize sites that are already disturbed or degraded, such as brownfields or abandoned industrial sites, reducing the risk of significant ecological and economic disruption. Should farmland be used, we encourage NYPA to look into alternatives like agrivoltaic projects that sustain agricultural production underneath or between solar panels throughout the life of the project.

In addition to safeguarding agricultural lands, avoiding ecologically sensitive areas, such as wetlands, forests, and habitats that support endangered or threatened species, is equally important. Through careful site selection, developers can help to protect New York's natural resources. In cases where some level of environmental impact is unavoidable, NYPA and the developers should take proactive measures to mitigate these effects. This can include creating or restoring habitats to replace those that are disturbed by the project. For example, if a solar farm requires the clearing of a forested area, the developer could fund reforestation efforts in another part of the community or establish conservation easements to protect nearby natural areas. Similarly, if agricultural lands must be used, developers should consider compensatory measures, such as supporting local agricultural preservation initiatives or funding land conservation efforts, to ensure that the state's agricultural economy and character remain strong.

Product Stewardship for Solar Panels and Wind Turbines

As the deployment of solar energy systems and wind turbines accelerates across New York State, it is essential to address the long-term environmental impacts of these renewable energy technologies throughout their life cycles. Product stewardship for both solar panels and wind turbines involves ensuring that the materials used in their manufacturing, deployment, and eventual decommissioning are managed responsibly to minimize waste and environmental harm.

NYPA should collaborate with manufacturers, developers, and policymakers to establish comprehensive recycling programs for solar panels and wind turbine components that reach the end of their useful life. This includes creating infrastructure to safely and efficiently recycle valuable materials, such as silicon,

glass, metals like silver and copper from solar panels, and the composite materials and metals used in wind turbine blades and towers. By doing so, we can reduce the need for raw material extraction and prevent hazardous materials from entering landfills.

Moreover, it is important to encourage the design and production of solar panels and wind turbines that are easier to recycle and have longer lifespans. This approach not only reduces the environmental footprint of renewable energy but also promotes the development of a circular economy in which resources are reused and waste is minimized.

Local governments support the establishment of state-level policies that mandate producer responsibility for both solar panels and wind turbines, requiring manufacturers to take back and recycle their products at the end of their life cycle. By implementing such policies, New York can lead the way in sustainable renewable energy development, ensuring that the benefits of clean energy are not offset by unintended environmental consequences.

Community Health and Safety

While renewable energy projects are generally safer and cleaner than fossil fuel-based energy generation, they still carry potential risks that must be carefully managed. NYPA should prioritize the health and safety of local residents, ensuring that renewable energy facilities do not pose risks to public health or safety. This includes adhering to stringent safety standards and providing emergency response plans.

Effective emergency response requires close collaboration with local authorities, including municipal fire departments, police, and emergency medical services. NYPA must work closely with local governments and their emergency response leaders to ensure that they are familiar with the layout and potential risks of the renewable energy facility and that they have the necessary training and equipment to respond to emergencies.

4. Equity and Inclusivity

Disadvantaged and Disproportionally Impacted Communities

Ensuring that the benefits and opportunities from renewable energy projects are accessible to all community members, particularly marginalized and underserved populations, is essential for promoting equity and social justice in the transition to clean energy. NYPA must play a critical role in making sure that these communities are not only included in the decision-making process but also receive tangible benefits from renewable energy initiatives. This approach helps to address historical inequities, fosters broad community support, and contributes to the overall success and sustainability of renewable energy projects.

In addition, as New York State transitions away from fossil fuels, it is imperative to ensure a just transition for workers and communities disproportionately affected by this shift. This includes providing retraining programs, job placement services, and economic support to those who have relied on fossil fuel industries for their livelihoods. NYPA should work closely with local governments to develop strategies that support these communities and help them adapt to the new clean energy economy.

Special consideration should also be given to economically disadvantaged communities that may benefit disproportionately from renewable energy projects. NYPA should consider additional measures to support these communities, such as enhanced financial incentives or community programs. One of the

direct benefits of renewable energy projects is the potential for lower energy costs. NYPA should prioritize making affordable, clean energy available to low-income households and communities that have historically faced energy insecurity. Ensuring that all community members, regardless of income, can access affordable renewable energy is a key component of equitable development.

Financial Impact Assessments and Consumer Protection

With the state's aggressive climate policies, there is a growing need to assess the financial impact of these initiatives on utility costs and, by extension, on consumers. Local governments are concerned about the potential burden on residents, especially in disadvantaged communities. NYPA should work with the Public Service Commission (PSC) to conduct comprehensive studies on these financial impacts and develop strategies to mitigate costs for consumers. This includes exploring innovative billing practices that can reduce grid demand and provide cost savings for all customers.

5. Coordination and Outreach

Coordination with Other State Agencies and Authorities

To effectively meet New York State's ambitious climate goals, it is essential that NYPA improves its coordination with other state agencies and authorities. Currently, local governments, businesses, and community members must navigate a myriad of different state websites and contacts to find relevant information about climate policies, programs, and resources. This fragmented approach can lead to confusion, inefficiencies, and missed opportunities for those seeking to engage in or benefit from the state's climate initiatives. As a result, some NYPA programs and resources are underutilized because local governments are simply not aware that they exist, limiting the impact these programs could have on advancing local and state climate objectives.

NYCOM, NYSAC, and AOT strongly advocate for the creation of a centralized, web-based toolkit where local governments, businesses, and residents can easily access information related to the state's climate-related programs and resources. Such a hub would streamline access to critical information, including funding opportunities, technical assistance, regulatory updates, and best practices. By centralizing these resources, New York State can help ensure that all stakeholders are well-informed and equipped to contribute to the Climate Act goals.

By creating this centralized resource hub, New York can also better support communities in disadvantaged areas, ensuring they have equal access to the resources and information necessary to participate fully in the transition to a clean energy economy. This will not only advance the state's climate objectives but also promote equity and inclusivity across all regions.

Education and Training Programs

In addition to centralizing information, local governments and other stakeholders must be educated on how to use that information effectively. As new technologies emerge, such as household energy storage and microgrid systems, local governments require technical assistance to integrate these innovations into their operations. NYPA should provide guidance and support for local governments in adopting these technologies.

To maximize the effectiveness of state climate initiatives more broadly, there is a critical need for comprehensive public education and training programs. These programs should be designed to ensure that all local governments, businesses, and residents are fully aware of and can take advantage of the

resources available to them. This includes training on new technologies, best practices for energy efficiency, and the financial incentives offered by the state and federal government.

A key area where New York State has not fully capitalized on available resources is the incentives provided by the federal Inflation Reduction Act (IRA). The IRA offers substantial financial incentives, including tax credits and rebates, for clean energy projects, energy efficiency improvements, and electric vehicle adoption. One of the most significant opportunities provided by the IRA is the "direct pay" option, which allows local governments and other tax-exempt entities to receive direct payments equivalent to tax credits for eligible projects. However, New York State has not fully leveraged these benefits, particularly the direct pay option, which could significantly reduce the financial burden on local governments while accelerating the deployment of renewable energy projects and infrastructure improvements. NYPA, in coordination with other state agencies, should prioritize educating local governments about these federal incentives and provide technical assistance to help them navigate the application process. By doing so, the state can ensure that local governments maximize the financial benefits available under the IRA, thereby advancing New York's climate goals more effectively.

Conclusion

By incorporating these considerations, the New York Power Authority can help ensure that the New York Public Renewables program not only advances the state's renewable energy goals but also aligns with the values of local governance and community well-being. NYCOM, NYSAC and AOT believe that a collaborative, transparent, and community-focused approach will lead to more equitable and sustainable outcomes, ultimately fostering stronger support for renewable energy initiatives across New York State.

As stated throughout these comments, local governments are not only critical implementers of clean energy projects, they can also be key influencers of public opinion and advocates for climate action. Their efforts help to bridge the gap between policy goals and community engagement, ensuring that the transition to a greener economy is both inclusive and effective. By providing these remarks in the NYPA's 2024 Conferral Process, we aim to further amplify these efforts and collaborate on strategies that will drive New York State towards a sustainable and resilient future.

From: New York Energy Alliance <info@nyenergyalliance.org>

Sent: Wednesday, August 7, 2024 11:50 AM

To: NYPARenewablesConferral < NYPARenewablesConferral@nypa.gov>

Cc: Motley, Kicy < Kwamina. Motley@nypa.gov>; Bocco, Alexandria

<Alexandria.Bocco@nypa.gov>

Subject: Re: Reminder: NYPA 2024 Conferral Invitation

Hello NYPA Team,

Thank you for reaching out to us. With the recent energy summit announcement I believe you will find the below statement agreeable.

Please feel to reach out if you have any questions,

Brian Wilson

NYEA Co-Founder

Statement:

Thank you for reaching out to us for our opinion on this matter. Our answer to the stated questions is informed by the recent interview given by your VP of Renewable Project Development and the recent PSC report that states NY's CLCPA 2030 renewable goal will not be met. This announcement has spurred many to call on NYPA to use its new authority from the BPRA to fill this gap.

We at NYEA feel that NYPA is moving at a correct pace, and that no pace is possible to reach a goal that was from the beginning unrealistic. NYPA has set a timeline and is working to understand the best way for it to use its unique advantages to produce renewable energy in New York while being mindful of public perception. From our first conversation with NYPA, we feel NYPA does not want to ram rod development through localities that do not want it, and its process thus far is indicative of that. As stated in the above mentioned interview, the BPRA does not force NYPA to step in if the 2030 goals are declared unreachable, as the bills most ardent supports try to characterize. To even attempt to do so will cause the public relations nightmare NYPA has wanted to avoid from day one.

Also, it should be made clear, NYPA does not own any renewable manufacturing capacity. It is affected by the same supply chain delays and cost overruns as any other developer. NYPA cannot magically make a turbine or panel appear, there absence a core reason for the delays.

NYEA maintains the same position that NYPA should look to re-enter nuclear generation, especially looking forward to the CLCPA 2040 goals. NYPA seems very willing to enter public-private partnerships, maybe one avenue could be partnering with NY's last nuclear operator, Constellation, on a joint project.

With this most recent announcement, we believe the State should re-assess it goals and set ones that are achievable and serve the actual interests of New Yorkers: reliable, cheap, abundant electricity for all New Yorkers. As for NYPA, it should stay the course it is on until such time more sensible heads prevail. NYPA cannot perform miracles, it is too busy delivering electrons.



August 14, 2024

New York Power Authority 123 Main Street White Plains, NY 10601-3170 via email to NYPARenewablesConferral@nypa.gov

Re: Input from New York Energy & Climate Advocates regarding NYPA 2024 Conferral process

Dear New York Power Authority,

New York Energy & Climate Advocates (NYECA) is a non-profit, volunteer-based organization comprised of scientists, engineers, environmentalists, and advocates for social justice who understand the reality of climate change and the moral imperative for timely action, employing effective solutions that work in the real world. Pursuant to the New York Power Authority (NYPA) 2024 conferral process, please accept the following input regarding action to support implementation of the Climate Leadership and Community Protection Act (CLCPA). It is our understanding that NYPA is soliciting feedback on the state's progress toward CLCPA goals, what NYPA is doing to support the CLCPA presently, and how NYPA can or should support it in the future.

Recent reports from state agencies and entities including the New York State Energy Research and Development Authority (NYSERDA), the New York Independent System Operator (NYISO), and the State Comptroller make clear that New York is not on track to meet CLCPA goals for decarbonization of the electricity sector or decarbonization statewide. In fact, New York is burning more fossil fuels for electricity today than in 2019 when the CLCPA was enacted due to the regrettable loss of nuclear power downstate. We also observe that many upstate communities who are losing agricultural land and natural areas to industrial-scale solar and wind projects feel that the community protection component of the CLCPA has been ignored. The state's failure to make progress toward CLCPA goals is tragic, the result of irresponsible actions and planning driven by political ideology rather than facts.

NYPA, however, has been a notable exception to this. Regarding actions already taken, we wish to acknowledge the important role that NYPA has played and continues to play in ensuring that New Yorkers enjoy reliable, clean, and affordable electricity. As the operator of New York's large hydropower facilities, the Authority produces 20% of electricity generated in-state, the vast majority of renewable energy in New York, and nearly half of the state's carbon-free electricity. Further, by constructing and managing transmission, the Blenheim-Gilboa pumped storage facility, and other strategic assets, NYPA ensures that the state's grid performs efficiently and reliably. Historically, NYPA has also contributed to the beneficial development and operation of reliable carbon-free nuclear power. In our view, NYPA has exemplified the best use of a public power authority—not by displacing the role of independent producers, but by investing in necessary

technologies that are more challenging for the private sector to pursue, and by providing the support infrastructure essential to a functional grid.

That said, our comments here will focus on what NYPA can and should do in the future to help New York achieve its climate goals. Relating to this, we also find it necessary to address misconceptions about the electric grid and the value of public power, including implications of the Build Public Renewables Act (BPRA) enacted last year.

Unfortunately, the BPRA was conceived of by interests that substitute ideological views about preferred technologies, and who should operate them, for a solid understanding of energy. Many of its proponents appear to believe that the only barrier to carbon-free electricity is that the private sector is not building solar and wind projects fast enough, or that the reason for rising cost is corporate greed rather than anything associated with the technologies pursued. This is contrary to numerous credible analyses confirming that decarbonization strategies which rely predominantly on intermittent generation are less feasible and more costly than those which use a balance of resources, including those capable of baseload or load-following operation. Whether industrial wind and solar projects are built by NYPA or private industry, New York will fail to decarbonize its electric grid—and thus fail to achieve its greenhouse gas reduction goals—if it does not address the fundamental obstacles of intermittency, storage, transmission, and low-energy-density that prevent renewables alone from meeting the energy needs of society. Moreover, since gas-fired generators will likely satisfy demand when intermittent sources are unavailable and batteries are depleted, building a system that is overly dependent on low-capacity factor solar and wind threatens to lock in fossil fuels for decades to come.

NYECA commented at length on these matters in July 2022 testimony to the New York Assembly on the role of state authorities in renewable energy development (NYECA testimony on BPRA to assembly 7-26-22) and in January 2023 testimony to state senate committees on actions necessary to implement the CLCPA (NYECA testimony to on CLCPA implementation to state senate 1-19-23).² We acknowledge that the BPRA legislation that was eventually adopted last year is more responsible than predecessor bills originally drafted by its proponents. If not wisely applied, however, we are concerned that its emphasis on renewable-only generation could direct the Authority away from productive steps that can and should be taken to maintain a reliable low-carbon grid, and could even undermine the long-term goal of zero-emission electricity. Needless to say, the topic is receiving heightened attention with NYSERDA's recent admission that New York will not meet the CLCPA's renewable energy goal. Instead of reacting politically, it is more important than ever for NYPA to act with engineering prudence.

¹ NYECA, Comments of Draft Scoping Plan, 7-1-22. https://www.nuclearny.org/wp-content/uploads/2022/07/NYECA-Scoping-Plan-comments 7-1-22r-Schue Rodberg.pdf

² NYECA, Role of State Authorities in Renewable Energy Development, July 26, 2024. https://www.nuclearny.org/wp-content/uploads/2023/01/BPRA-testimony NYECA 7-26-22.pdf; NYECA, Testimony on Actions Necessary to Implement the CLCPA, to NYS Senate committees, January 19, 2023. https://www.nysenate.gov/sites/default/files/keith_schue_new_york_energy_climate_advocates.pdf

Recommendations

NYECA maintains that the best way for NYPA to support the CLCPA's goal of greenhouse gas reduction is by building upon the vital role it has played in New York since its inception.

The Authority should analyze opportunities to expand the capacity of its reliable carbon-free assets, including its large-scale hydropower plants, as well as small-scale hydropower where possible. A good example of this is the Green Island Hydroelectric Power Station on the Hudson River. Original built by Henry Ford in 1921, this run-of-river facility was acquired by the Green Island Power Authority (GIPA) in 2000 and rehabilitated in 2001.³ Since 2009, plans have existed to replace the plant's four 1.5 MW turbines with eight 6MW turbines. In addition to providing reliable renewable power in proximity to New York's capital, the design includes a public park and new fish-exclusion technology, thus making the facility more ecologically friendly.⁴ However, for lack of state support, progress has languished. NYPA should partner with GIPA to make the Green Island expansion project a reality.

We do not believe that competing with private industry to build large-scale intermittent solar and wind projects is the best use of NYPA expertise or resources. A public authority can expect to encounter the same set of limitations that are impacting private enterprise with respect to supply chains, permitting, workforce, and time-to-market constraints. By placing addition stress on those constraining factors, the Authority could even exacerbate bottlenecks and interfere with the timely deployment of commercial projects. Moreover, it is unclear how the bonding of solar and wind projects by NYPA would impact the Authority's financial spreadsheet and ultimately the bill of NYPA ratepayers.

Consistent with CLCPA goals, we instead encourage NYPA to provide support for system-level infrastructure and facilities necessary to make the grid of the future operate effectively. This includes the provision of responsibly-cited transmission, storage in proximity to downstate load centers, and dispatchable emission-free resources (DEFRs) that all credible studies indicate will be needed to avoid retaining most—if not all— of the state's existing fossil fuel capacity. Instead of taking on projects that private developers can build themselves, NYPA should focus on developing those components of the systems that are more challenging for the private sector but essential to achieving a reliable carbon-free grid—the "glue" necessary for a mix of firm and intermittent resources to function together effectively.

We also note that while the BPRA contemplates the deployment of renewables, it does not preclude NYPA from investing in or supporting other carbon-free technologies. As previously mentioned, the Authority was instrumental in bringing nuclear power to New York. In particular, NYPA assisted in the development of the James Fitzpatrick nuclear plant, named after its former chairman, and was interim owner and operator of Indian Point Unit 3. As with its early investments in hydropower and nuclear, NYPA is well-suited to assist in the development of first-of-a-kind

³ Green Island Hydroelectric Plant, Albany Engineering https://www.albanyengineering.com/greenisland.htm; Green Island Power Authority https://villageofgreenisland.com/gipa/

⁴ Green Island Expansion Plans, Village of Green Island https://villageofgreenisland.com/gipa/expansion-plans/

technology, including advanced nuclear. Credible advocates for public power recognize this as well. In its 2022 issue brief on nuclear energy, the American Public Power Association, which has existing since 1940, states:

The American Public Power Association (APPA) supports the continued use of nuclear power, a key source of baseload, emissions-free electricity. ...APPA also believes that federal policies should continue to facilitate the construction of new nuclear facilities and further the development of advanced nuclear technologies, including small modular reactors (SMRs).⁵

In addition to providing reliable baseload electricity, many advanced nuclear designs support load-following (a feature common in French reactors today), or fast ramping as with the sodium-cooled Natrium reactor now under construction in Wyoming by TerraPower with support by the Department of Energy and Bill Gates. A nominal 345 MW reactor, Natrium employs thermal storage to allow rapid variations in output power from 100 MW to 500 MW. This dispatchable feature will be particularly useful in systems with a significant amount of generation from intermittent renewables. We believe it is appropriate for NYPA to broadly interpret its authority under the BPRA to develop technologies, including nuclear power, that complement the function of renewables on the grid.

Competing with or displacing private enterprise in a race to cover the state with sprawling solar and wind projects is neither a wise use of public resources, nor is it a winning climate strategy. However, to the extent that NYPA is compelled by politics to become involved in the construction of such projects, we would encourage the Authority to develop large-scale renewables on land within the downstate region. From a technical standpoint, this is desirable because doing so would locate generation closer to loads being served. However, it is also desirable as a means of more fairly distributing the impacts of renewable energy buildout. Presently, that burden is borne almost entirely by upstate communities, which are often forced to host industrial-scale solar and wind projects that residents oppose. With unprecedented powers by the Office of Renewable Energy Siting (ORES) to waive local laws and approve unpopular massive projects that consume farmland and nature, many update communities are becoming openly hostile to CLCPA implementation. It should also be noted that the capacity factor of solar improves at lower latitudes.

In addition to focusing the deployment of any renewable projects closer to downstate load centers, the Authority should optimize the use of brownfields and already-developed areas. We do not support the use of state forests, preserves, wilderness areas, wetlands, public conservation lands, or lands protected by conservation easements for solar and wind development. The siting of any renewable energy projects or related infrastructure should be based on a thorough analysis of

⁵ American Public Power Association-Powering Strong Communities, Issue Brief: *Nuclear Power*, June 2022. https://www.publicpower.org/system/files/documents/70%202022%20PMC%20Issue%20Brief Nuclear%20Power FINAL.pdf;

⁶ TerraPower Natrium reactor https://natriumpower.com/; see also: https://natriumpower.com/; see also: https://natriumpower.com/; see also: https://www.terrapower.com/; see also: https://www.terrapower.com/downloads/Natrium Technology.pdf

direct and indirect ecological impacts with attention to the protection of listed species, biodiversity, and ecological corridors.

In our view, meaningful action on climate change requires a very different approach from the politics that has driven climate activism to date. Needed is an approach driven not by ideological agendas or technology discrimination, but rather one that optimizes public resources to achieve the salient goal of greenhouse gas reduction while ensuring reliable service. With an eye on the actual goal of decarbonization, NYPA should have flexibility to consider a variety of carbon-free technologies without prejudice. Embracing New York's spirit of innovation and the Authority's own history of leadership, NYPA should actively explore advanced nuclear power, thermal storage, synthetic fuels, and system-level techniques for managing supply and demand. Consistent with this, in implementing advanced technologies and first-of-a-kind projects, NYPA should explore opportunities for partnering with both the federal government and private sector, as is taking place elsewhere in the country.

Finally, we wish to emphasize the importance of bringing competent, technical experts to the table. If New York is serious about achieving its climate and energy goals, it cannot afford to be distracted by tangential or ideological special interests. We respect that NYPA is a results-oriented authority charged with the serious task of managing physical plants and delivering reliable electricity. The Authority should not be burdened by unnecessary obligations, mandates, or restrictions that prevent it from doing its job.

Thank you for accepting these comments and feel free to contact us with any questions.

Sincerely,

Keith Schue

New York Energy & Climate Advocates

Weil Solve

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August 14, 2024

Justin E. Driscoll President and CEO New York Power Authority 123 Main Street White Plains, NY 10601-3170

Re: NYPA 2024 Conferral

Dear President Driscoll:

Jointly, the New York State AFL-CIO ("NYS AFL-CIO") and New York State Building & Construction Trades Council ("BCTC") submit these comments in response to the July 9, 2024 Conferral invitation from the New York Power Authority ("NYPA" or "Authority").

The NYS AFL-CIO is a federation of 3,000 public sector, private sector, and building trades unions throughout the state, representing 2.5 million members, retirees, and their families. The BCTC includes 14 local building trades councils, 12 district councils and state associations, and 135 local unions representing over 235,000 unionized construction workers throughout the State of New York. Collectively, our members live and work in every community in our state and reflect the diversity that makes New York great.

While we fully support the State's emission reduction goals, careless implementation of the Climate Leadership and Community Protection Act ("CLCPA") will imperil thousands of good union jobs, threaten reliability, and lead to skyrocketing costs. That is why it is critical for the State, including NYPA, to prioritize the maintenance and creation of good union jobs in the continued implementation of the CLCPA.

In its role in implementing the CLCPA, NYPA should include quality-based contracting and labor provisions that build on the Just Transition policies enacted over the last few years for renewable energy systems in section 66-r of the Public Service Law and section 224-d of the Labor Law, including prevailing wage, project labor agreements, labor peace, and Buy American provisions. The Authority should also include protections and standards recommended in the

Additionally, robust labor standards and protections have recently been enacted in the following climate change statutes: Education Law §§ 3623-a (2) (f), 3638; Environmental Conservation Law § 58-1301; Labor Law §§ 21-f, 224-f; Public Authorities Law §1005(27-a); Public Buildings Law §91; Public Service Law §§ 66-t, 66-v; and State Finance Law §163-c.

Climate Action Council Scoping Plan and embraced in statute – such as job protections, prompt rehire, and direct assistance for displaced workers.² These policies will help ensure that projects are built in a cost-effective manner and meet applicable standards and critical construction and power generation schedules. NYPA should require, as an ongoing condition of any agreement implementing zero-emissions energy systems programs, that the owner of the zero-emissions energy system, or a third party acting on the owner's behalf, comply with the provisions of PSL Section 66-r and Section 224-d of the Labor Law. NYPA should also require utilization of bona fide apprenticeship programs registered with the United States or New York State Department of Labor for the appropriate type and scope of work. Prevailing wage and apprenticeship training have similar positive project delivery effects as do PLAs. Apprenticeship training provides an effective tool for ensuring a sufficient supply of skilled workers with verified training for the future of this industry. PLAs ensure that affected projects will be built in a timely manner by a skilled and trained workforce. Collectively, apprenticeship and pre-apprenticeship programs affiliated with the unions affiliated with the BCTC provide opportunities for residents of disadvantage communities to learn a trade and start a career path towards a middle-class, family sustaining-future. In addition, all three policies have a long history of success in federal, state, and local public works programs in New York 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 State's Climate Policy.

NYPA is already required to adhere to a strict set of labor standards in implementing the Build Public Renewables Act ("BPRA") as section 1005 (27-a) Public Authorities Law provides an obligation to utilize project labor agreements, comply with prevailing wage Articles 8 & 9 of the Labor Law, employ Buy American provisions, protect civil service employees and create operation and maintenance opportunities for transitioning employees.³

These labor provisions are consistent with the March 23, 2021, recommendations of the Just Transition Working Group to the Climate Action Council. They would create and retain good paying union jobs in New York, spur local manufacturing and further New York's clean economy goals. They would also 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.

The Authority should also consider the benefits afforded by establishing an in-state supply chain for burgeoning technologies. Early adoption of new technology combined with domestic and instate content requirements or preferences will attract manufacturers and jobs to the state.

NYPA can further bolster efforts to foster domestic and New York State supply chain development by building out grid storage. Expanding storage buildout, especially downstate, would create the added benefit of enhancing reliability by preventing brownouts and blackouts.

² Id.

³ Public Authorities Law §1005 (27-a)(k)(l)(m)(n)

Many unionized industries, including construction and manufacturing, rely on non-renewable and hydro energy to operate. These industries employ thousands of workers and offer tremendous training and career opportunities for apprentices seeking to learn a trade and establish a middle-class career. The generation of non-renewable and hydro energy also employs thousands of union workers, including construction workers and apprentices, many of whom are on the path to life-changing wages and benefits. NYPA and the State must prioritize the protection of these workers and the maintenance of these jobs. This can be done by maximizing the application of protections for current workers included in the BPRA and ensuring that union employers, especially those in energy intensive trade exposed industries, can continue to access reliable, affordable energy.

Further, NYPA should endeavor to build out 15gw of renewable generation capacity by 2030. Achieving this lofty goal will also enable New York to become a leader in the production of green hydrogen by utilizing energy that would otherwise be curtailed to produce green hydrogen. In pursuit of this goal, NYPA can also ensure that those trained or retrained as part of the State's Just Transition are provided the needed pathway to jobs.

While we are fully supportive of renewable development, the zero-emission technologies described below would fill the energy generation gap; keep industries operational; and provide enormous opportunity for those who construct, operate, repair, and maintain non-renewable energy generating facilities to transition to clean energy sector jobs. NYPA should embrace zero-emission technologies that will provide the much-needed dispatchable resources that will inevitably be necessary for the clean-energy grid to maintain reliable and cost-effective service. Such zero emissions technologies should include existing and advanced nuclear, thermal energy networks, long-duration storage, green and pink hydrogen, renewable natural gas, carbon capture and storage ("CCS"), virtual power plants ("VPPs") and demand response resources.

Thank you for your time and consideration.

Sincerely,

Mario Cilento

President

New York State AFL-CIO

Maw Cilem

Gary LaBarbera

President

New York State Building & Construction Trades Council

NEW YORK STATE ASSOCIATION OF ELECTRICAL WORKERS ORGANIZED JUNE 26, 1915

Affiliated with

NEW YORK STATE AFL/CIO NEW YORK STATE BUILDING TRADE



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New York Power Authority 2024 Conferral Process

Response - August 14, 2024

The New York State Association of Electrical Workers ("Association") submits these comments in response to the July 9, 2024 Conferral Process invitation from the New York State Power Authority ("NYPA" or "Authority"). The Association is comprised of thirty-one (31) Locals of the International Brotherhood of Electrical Workers (IBEW) union representing over 70,000 current or retired electrical workers across New York State. Our union locals represent inside and outside electrical construction workers, as well as utility workers both in the private and public sectors, including workers at NYPA's electric generation facilities.

The Association is concerned that the current development pipeline of zero-emission generation and complimentary transmission is insufficient to meet the generation goals of the CLCPA and will (a) result in an unreliable and unaffordable energy market in the state; (b) fail to ensure a Just Transition for workers impacted by the transition to clean energy; and (c) jeopardize trade exposed industries' ability to remain or locate in New York. The Association is concerned that without strong labor standards on projects the emerging disturbing trend at some clean energy project sites, utilizing out of state workers with unknown training, with poor and dangerous working conditions and wage theft, will only worsen.

NYPA should work to address the Association's concerns by: (a) owning and/or ensuring the development of utility scale – zero-emission energy generation and necessary transmission, that will provide long term construction and maintenance jobs. The authority should focus on (i) building generation or other related storage or technology solutions that are not being developed under current market forces, either because of a longer pay-back period, lower profit projections or the complexity of the project; (ii) providing reliable generation that can supply base loads to zones with demand, taking advantage of existing infrastructure and the availability of displaced and disadvantaged workers ready and able to provide manpower; and (iii) diversifying the generation portfolio to ensure hydrogen production and generation, advanced nuclear generation,

thermal energy networks, energy storage, transmission and other technology solutions to address the demands of electrification are included where possible; and (b) fully embrace labor standards and compliance with the same, as well as requirements of the CLCPA to ensure a Just Transition, with a diverse trained and skilled workforce through open communication with and/or utilization of existing organizations and contractors that (i) provide trained and skilled workers in the applicable trades through New York State certified pre-apprentice and/or apprentice programs; (ii) can ensure the use of domestically sourced materials to meet enhanced domestic content policy requirements - that should be adopted by NYPA; (iii) support the utilization and additional training needs of the Authority's current workforce; and (iv) can provide project management services and work in collaboration with other similar organizations and contractors involved in the project where appropriate. By utilizing this approach, the Authority would create an environment conducive to support family sustaining jobs for those the CLCPA aims to benefit, while ensuring the reliable supply of energy and keeping the cost of energy affordable to ratepayers, including in-state manufactures.

The diverse workforce represented by the Association, members of the IBEW, is employed by private contractors and companies or public employers to construct, renovate, and maintain electrical systems from residential to commercial and utility scale projects. For decades IBEW has partnered with its employers to provide world class apprentice programs and continuing education to train the workforce that has built, renovated or maintained every type of energy generation in the state and nation, including zero-emission facilities generating electricity utilizing hydropower, wind and solar energy, hydrogen, thermal and nuclear energy, as well as the state's transmission and distribution infrastructure, energy storage systems, electric vehicle charging infrastructure and charging stations and smart grid technology.

The IBEW workforce is comprised of apprentices under the supervision of journeyman electricians, and includes foreman and superintendents, all employed by our network of signatory contractors, represented by the National Electrical Contractor's Association (NECA) or by public and/or private facility owners. We can also utilize IBEW workers from around the country to seamlessly address manpower needs. The IBEW and employer collaboration ensures the workforce has the training and skills to meet the needs of project owners/developers, keeping pace with technological advancements and project requirements. We can continue and expand our work with NYPA to ensure its workforce needs are met, including diversity and targeted hiring goals, regardless of project delivery method, including existing Public Work models and/or under a Project Labor Agreement.

Our members that comprise NYPA's current in-house workforce are capable of performing work on new generation and transmission projects. Our inside construction workforce can perform any electrical work needed on generation projects and the outside construction workforce can provide transmission work, including everything from tree trimming to crane operation as well as the transmission line setting and cable pulling. IBEW's construction workforce routinely works side-by-side with our utility workforce, whether public or privately employed, and in the case of inside construction projects with other construction trades, union and non-union. Our signatory contractors routinely provide project management services, including energy generation projects. Our members and partner contractors are accustomed to working on large projects with multiple trades and have a history of being able to work collaboratively to address project issues.

Our workforce is present on every type of energy generation projects in New York State and is actively engaged in recruitment to feed our pre-apprentice and registered apprentice programs, including from diverse populations, disadvantaged and environmental justice communities. We also work to organize non-union journeyman electricians to ensure we meet the increasing demand for our skills as the state transitions its energy economy to meet the goals of the CLCPA.

With open and transparent communication we can respond to NYPA's workforce needs by scaling up our traditional training programs to assist in meeting the specific needs of NYPA supported projects. Our training programs are located across the state and can be leveraged to address project workforce and hiring needs in their regions. Productive communication will enable strategic planning with the objective of providing advanced workforce development and addressing transition needs. Strategic decision making would best allow us to support NYPA's existing or expanded unionized workforce with training necessary for project success, as well as retraining our workforce displaced by the implementation of the CLCPA, to ensure there are sufficient workers with the training and competencies needed to deliver high quality work. NYPA making a commitment that requires minimum training standards and work experience, with safe apprentice to journeyman ratios will ensure the long-term success of projects and help build and strengthen the workforce pipeline necessary to successfully meet the goals of the CLCPA and the ongoing needs related to electrification.

Our partner contactors are actively engaged in procuring domestic electrical supplies and are involved in projects where investments are being made to increase domestic production. We know the domestic manufacturing market is poised to meet market needs. There is more and more domestic production each year, partially due to federal action to address overseas manufacturing conditions and practices. NYPA could provide additional demand to further increase domestic production, including in-state production, through policy/contract terms or product utilization. The domestic supply chain would be bolstered by purchase orders from reliable project owners/developers like NYPA – particularly on a timeline that allows the supply chain to ramp-up production to scale.

The Association applauds the outreach from NYPA during this stage of the process and looks for continued communication as it moves forward with its work. We appreciate the working relationship our locals and workforce have had with the Authority and hope we can build upon our successes to help ensure the state meets the goals of the CLCPA. The Authority has historically been the key to zero-emission energy production in this state and hope that its expertise can be utilized to ensure all the goals of the CLCPA are achieved, including reliability, affordability, and a Just Transition while supporting a strong manufacturing sector.



August 14, 2024

New York Power Authority 123 Main St White Plains, NY 10601

Re: NYPA 2024 Conferral Process

Dear NYPA Colleagues,

On behalf of New York Solar Energy Industries Association (NYSEIA), I am pleased to submit the attached comments as part of NYPA's 2024 Conferral Process. NYSEIA acknowledges the significant challenges New York must overcome to achieve the clean energy mandates in the Climate Leadership and Community Protection Act (CLCPA). We also appreciate the significant contributions that the New York Power Authority (NYPA) is making to support progress toward these mandates. Thank you for being a collaborative partner to New York's solar industry, and for affording us the opportunity to provide input as NYPA develops its Build Public Renewables Act implementation plan.

Please contact me if you have any questions regarding NYSEIA's comments, and we look forward to continued dialogue and collaboration.

Respectfully submitted,

Nooh Dubay

Noah Ginsburg

Executive Director

New York Solar Energy Industries Association

Please share your thoughts on the State's progress toward CLCPA goals.

On July 1, 2024, NYSERDA and the Department of Public Service filed their Clean Energy Standard Biennial Review, a report which states that New York is no longer on track to meet its 70% renewable electricity by 2030 mandate with a business-as-usual approach. According to the NYSERDA/DPS report, electric load growth combined with delays and cancellations for utility-scale renewable energy projects due to inflation and rising interest rates are resulting in a forecast >42,000 GWh shortfall in clean energy by 2030 to meet the 70% renewable electricity mandate.

New York Solar Energy Industries Association (NYSEIA) is concerned that New York is not on track to achieve 70% renewable electricity by 2030, and calls for policy interventions and a new strategy to accelerate deployment of renewable energy resources and energy efficiency. Despite setbacks for utility-scale renewables and headwinds for rooftop and community solar, New York is actually ahead of schedule for deploying 10 gigawatts of distributed solar by 2030. Scaling up distributed solar deployment can help to close the gap on New York's CLCPA mandates, which is why NYSEIA is calling for New York to raise its distributed solar goal to 20 gigawatts by 2035. The policy interventions needed to accelerate distributed solar deployment include: interconnection reform and flexible interconnection to lower the cost and shorten the timeline for connecting new solar and storage projects to the electric distribution system; siting/permitting reform to expedite local approvals for rooftop and community solar; and improved rate design and incentive programs, with an emphasis on supporting projects that are beneficially sited and/or deliver direct utility-bill savings to low- to moderate-income households.

Please share your thoughts on how NYPA can or should support CLCPA.

NYSEIA asserts that the primary interventions that will accelerate distributed solar deployment include: interconnection reform and flexible interconnection to lower the cost and shorten the timeline for connecting new solar and storage projects to the electric distribution system; siting/permitting reform to expedite local approvals for rooftop and community solar; and improved rate design and incentive programs, with an emphasis on supporting projects that are beneficially sited and/or deliver direct utility-bill savings to low- to moderate-income households. To the extent NYPA can drive these important policies forward or otherwise address interconnection and siting barriers, that could meaningfully drive incremental progress toward CLCPA compliance.

NYPA can also support progress toward the CLCPA by rapidly transitioning its fleet of fossil fuel generators to non-emitting alternatives such as large-scale battery energy storage facilities, paired with onsite clean energy generation resources where feasible. NYPA can also support progress toward the CLCPA by maintaining high performance from its fleet of hydroelectric facilities; the NYSERDA/DPS Clean Energy Standard Biennial Review states that "baseline hydroelectric resources have declined 8.2% from 2017-2020" and cites economic challenges and deferred maintenance as the root cause. NYPA can also continue to support its existing power customers to implement onsite distributed energy resources across the state.

To the extent NYPA plans to use its expanded authority to develop and own distributed solar and battery energy storage facilities, NYSEIA strongly recommends that NYPA do so in partnership with the existing ecosystem of solar and storage developers, EPC contractors and financiers operating in New York State. The significant gap between New York's forecasted renewable energy generation and what is needed to comply with the CLCPA implies that additional actors could enter the market without hurting existing market participants. Yet at the same time, the core barriers to deployment are interconnection hosting capacity and land use; issues that can only be addressed through policy changes.

Additionally, incentive programs such as NY-Sun and NYSERDA's forthcoming retail energy storage incentive program have finite budgets allocated. The limited pool of funding/capacity through these programs creates a sense of scarcity and competition. NYSEIA urges NYPA to approach development with a lens of additionality; NYPA should focus its limited bandwidth toward implementing projects that would not otherwise happen if not for NYPA's participation. This approach will allow NYPA to leverage its strengths to help close New York's CLCPA gap while helping to expand the renewable energy industry and workforce. As NYPA develops its renewable energy implementation strategy, NYSEIA recommends that the Authority consider adopting an approach similar to the New York Green Bank, whose "mission is to work in collaboration with the private sector to transform markets in ways that accelerate clean energy investments, combat climate change, and equitably deliver both economic and environmental benefits to all New Yorkers." An approach that emphasizes partnership and additionality will be well received by existing market participants and will drive progress toward CLCPA mandates.

In the spirit of expanding the addressable market, one area where NYPA might be able to support solar project deployment is within New York's upstate municipal utility service territories. Many of these municipal utilities lack standardized interconnection processes or compensation mechanisms for distributed energy resources. As a power provider for many of these municipal utilities, NYPA is uniquely positioned to enable solar and storage projects in these areas that will otherwise go unserved. Similarly, NYPA can enable a subset of its existing customers to implement solar projects that would otherwise not be feasible. For example, NYSEIA is aware of public agencies/authorities who have concerns about Internal Revenue Service (IRS) rules that prohibit private use of facilities constructed with tax-exempt bond financing. Perhaps NYPA could utilize its expanded authority to help its public sector customers overcome such concerns, enabling large portfolios of distributed solar and energy storage projects to be deployed on these facilities, many of which have strong technical potential.

Finally, NYPA has an important role to play in informing policy regarding rate design and interconnection. NYPA has a unique perspective as both a public utility and an entity charged with implementing clean energy projects. NYPA understands both the utility perspective and that of clean energy developers, allowing it to put forth nuanced and impactful policy recommendations that are more likely to succeed. To the extent NYPA is able, NYSEIA encourages NYPA to increase its (already significant) engagement in efforts to improve interconnection and rate design in the state.

Please share your thoughts on what NYPA is already doing to support CLCPA.

NYSEIA is not aware of all the activities that NYPA is doing to support the CLCPA, however, we acknowledge the important role that NYPA plays generating and transporting clean and low-cost power to municipal and industry energy consumers in the State, and supporting its customers to implement onsite distributed energy resource (DER) opportunities.

Do you have anything else you would like to share for the record?

The key barriers to clean energy deployment in New York are rising interconnection costs, restrictive local laws/siting challenges and challenging project economics due to declining incentives and rising costs. These barriers impact NYPA just as they impact private sector clean energy developers. NYSEIA encourages NYPA to focus its finite time and resources toward addressing these structural barriers to clean energy deployment and/or enabling projects that would not otherwise be feasible if not for NYPA's participation.



John R. Koelmel, Chair New York Power Authority 123 Main Street White Plains, NY 10601-3170

August 7, 2024

Comments Re: NYPA 2024 Conferral

Dear Chairman Koelmel:

The New York State Laborers' Political Action Committee (NYS Laborers' PAC) is an organization representing over 40,000 union members and 24 local unions. The NYS Laborers' PAC aggressively advocates for wage and safety standards for our members, raising the floor for both union and nonunion construction workers. We appreciate the opportunity to provide public comments regarding NYPA's involvement in reaching the goals of the Climate Leadership and Community Protection Act (CLCPA).

Workforce Training

Any efforts by NYPA to transition from fossil fuels to renewable and zero emissions energy systems must consider the potential impact to workers. One mechanism to ensure the creation of career-track jobs in the green economy is the utilization of state -certified apprenticeship programs. Already established training programs have been, and will continue to be, a key component in the retraining of workers to build and maintain the clean energy systems. Union apprenticeship programs offer flexible training curriculums, access to on- the -job training and compensation and an unmatched investment in skills and safety training. NYPA does not need to create new programs to effectively reeducate workers, as highly effective apprenticeship programs already exist. In addition to apprenticeship programs, pre-apprenticeship programs offer a direct entry path into a union apprenticeship program, assisting those from disadvantaged communities to gain access to jobs in the green economy. It is also imperative that NYPA seek out counsel and partner with groups like the Workforce Development Institute (WDI), an organization that specifically focuses on worker training in various sectors, including energy and climate.

In addition to retraining workers employed in the fossil fuel industry, NYPA must consider barriers workers face that extend beyond training. The majority of large scale renewable and zero emissions energy projects occur in rural areas with sparse populations, making the need for wraparound services such as transportation and childcare all the more necessary. Unless these needs are addressed, worker shortages may persist and persons from disadvantaged populations may be prevented from accessing jobs in the clean energy sector. Project Labor Agreement (PLA) and prevailing wage requirements will also assist in preventing a worker shortage, while helping local residents gain access to jobs in their community.

NYPA Renewable Generation



We urge NYPA to not simply be another bidder, in competition with private developers for New York State Energy Research and Development Authority (NYSERDA) contracts, but to have a more narrow focus, prioritizing transmission and projects lacking private sector involvement. There is a tremendous demand for NYPA to issue solicitations in economically or geographically challenging areas. In doing this, NYPA will be filling a void, and will play a key role in assisting the state in reaching the goals of the Climate Leadership and Community Protection Act (CLCPA).

Interconnection

The prioritization and acceleration of large scale renewable and zero emissions energy projects must also be complemented by a focus on transmission. As solar and onshore wind projects continue to be developed upstate, and offshore wind projects progress downstate, a bi-directional controllable transmission line would serve as an effective tool to meet the energy needs of New Yorkers statewide. Transmission projects must be as heavily prioritized as the buildout of large scale clean energy projects in order to meet the state's energy demands and climate goals. Transmission lines also create hundreds of career-track construction jobs, helping to put New Yorkers to work in the green economy. Laborers across the state are ready to build the green infrastructure that will ensure a reliable, zero emissions electrical grid.

CLCPA Goals

The state can meet the ambitious goals of the CLCPA, and NYPA can continue to be an active partner in that process. These goals cannot be achieved without focusing on worker training, labor standards and the continued involvement of labor organizations.

The New York State Laborers' PAC looks forward to continuing to work with NYPA to realize the goals of the CLCPA. Thank you for your attention to this important topic.

Sincerely,

Vincent Albanese

Director of Policy & Public Affairs

New York State Laborers' PAC











PEAK Coalition New York Power Authority 2024 Conferral Process Comments August 14, 2024

PEAK Coalition respectfully submits the following written comments in response to New York Power Authority's annual conferral process to gather information and views on the state's progress on Climate Leadership and Community Protection Act (CLCPA) mandates to help inform the Authority's renewable development strategies.

The PEAK Coalition, made up of UPROSE, THE POINT CDC, New York City Environmental Justice Alliance (NYC-EJA), New York Lawyers for the Public Interest (NYLPI), and Clean Energy Group (CEG), is a campaign to end the long-standing pollution burden from fossil fuel-fired power plants. This coalition represents over 750,000 New Yorkers, 78% of who are people of color or low income people, living within a half mile of these peaker plants, and is the first comprehensive effort in the US to reduce the negative and racially disproportionate health impacts of a city's peaker plants by replacing them with renewable energy and storage solutions.

New York State is not building sufficient renewable energy and is therefore making woefully inadequate progress toward its CLCPA mandates.

The New York State Energy Research and Development Authority (NYSERDA) and the New York State Public Service Commission (PSC) have reported in the Draft Clean Energy Standard Biennial Review that New York will likely be unable to meet the Climate Leadership and Community Protection Act's 70% renewable energy grid by 2030 mandate and that delaying the timeline to 2033 or beyond could be "unavoidable." The review cites an increase in electricity usage due to "data center expansion, clean tech manufacturing growth, and electrification efforts," among other reasons. However, the review is clear that the primary reason that New York is not on track to reach its clean energy mandates is due to a failure to bring a sufficient capacity of renewable generation online quickly enough. This failure is attributed to multiple reasons beyond the control of New York State entities. These include unfavorable conditions in global energy markets, such as supply chain issues, geopolitical tensions, high interest rates, and inflation — issues that were on full display when private renewable energy developers unsuccessfully petitioned the PSC in 2023 for non-competitive price adjustments to their preexisting contracts. The report's data also shows but fails to mention the significant impact large-load interconnections have on the grid contrasted with comparatively modest load growth from electrification.

While these external factors present a real barrier to rapid, mass deployment of renewable energy, many causes for the delay are policy failures well within the control of the State and must be changed. Unnecessary delays exist across the board, such as in the New York Independent System Operator (NYISO) interconnection process, which often takes three to four years before a new generator can connect to the transmission system. The Biennial Review also points to significant gaps in the clean energy workforce, as well as the need for significant transmission upgrades both between and within NYISO load zones. Nearly

¹ NYSERDA and PSC Draft Clean Energy Standard Biennial Review, pg. 42.

every point of delay also demonstrates clear, achievable opportunities for improvement, and we are pleased to see that some of those opportunities are being seized upon. For example, NYISO is transitioning to a "cluster study" period for the first time in the summer of 2024, which is expected to streamline the study process and ultimately shorten the time for interconnection. Similarly, legislation like the RAPID Act, which may streamline the land-based siting and permitting process for new generation from an average of 3.5 years to 1.2 years, should be looked toward as an exemplar for expediting processes without sacrificing safety. These changes show that while there is some degree of concrete restraints on renewable energy resources— as exemplified by the global impacts on supply chains— much of the delay can also be attributed to problems in permitting and review processes. These problems are made in New York, come from our state legislature and executive agencies, and ultimately hurt the people of New York, who continue to demand a swift and equitable transition to a clean, reliable, and affordable energy future as codified in the nation-leading CLCPA.

Deliberate inaction and avoidable delays by state departments and authorities continue to put the legally mandated and technically feasible timeline of implementing the energy transition at severe risk. Many of the state actors responsible for the clean energy transition - including NYPA - focus more on their limitations than the capabilities they have had since the FY2023 Budget. NYPA's mandate to build public renewables sunsets in 2033. The Authority should do everything possible to retire dirty, harmful, expensive peaker plants and build renewable energy and energy storage before that point. At times, however, NYPA's actions suggest the authority is trying to run out the clock instead. To date, NYPA has taken few concrete steps toward developing renewable resources as the Authority's own fossil peakers continue to exacerbate the climate crisis and harm surrounding communities. Continuing business-as-usual with insufficient deployment of renewable energy creates reliability concerns like those cited in the 2023 NYISO decision to keep the Gowanus and Narrows peaker plants in Sunset Park, Brooklyn, online two years past their regulated deactivation date. This is a dangerous precedent. Every year that the state slow-walks swift and equitable renewable energy deployment is another year that the state's Disadvantaged Communities continue to unequally endure expensive energy bills and toxic air pollution from fossil fuel-fired power plants located in their neighborhoods. A change in outlook is required.

As directed under the 2023-2024 New York State Budget, the New York Power Authority (NYPA) must shut down over 400 MW of its fossil fuel power generation capacity and build any necessary renewable energy generation by 2030 to guarantee that New York State meets its CLCPA mandate of a 70% renewable electricity grid six years from now. As the state's largest clean energy power provider through NYPA's fleet of hydroelectric power plants, NYPA is uniquely positioned, well equipped, and strongly encouraged to swiftly develop, build, and own several gigawatts of renewable electricity generation and energy storage to meet the state's renewable generation mandate and secure a timely achievement of a zero-emissions grid. Incentives offered by federal legislation, such as the Inflation Reduction Act (IRA), should be used liberally by NYPA. They could be even more accessible in the coming years as federal guidance and criteria are finalized. For instance, the Authority is eligible for direct pay incentives and federal grants that private renewable energy and battery storage developers cannot otherwise attract, bringing significant matching federal funding for NYPA's mandated renewable energy investments and enhancing the Authority's existing billions of dollars in bondmaking capacity.

Additionally, NYPA's support for CLCPA must prioritize its impact and benefits in New York's Disadvantaged Communities. Consistent with the goals of energy transition programs across the state, NYPA projects should aim to achieve additional grid resiliency, fossil-fuel

phase-out, and energy affordability, as well as ensure that a minimum of 35-40% of these benefits and investments are located in Disadvantaged Communities.

The PEAK Coalition is motivated by its collaborative efforts with NYPA in 2022 to publish the Small Clean Power Plant Adaptation Study, which confirmed that NYPA can phase out the use of its fossil fuel peaker plants with currently available short-duration battery storage alone by 2030. We are further encouraged by NYPA's subsequent Request for Proposal to implement such battery storage deployment. However, the selection process has dragged on for over two years without any visible progress. However, as a utility provider to some state agencies and authorities, local governments, and nonprofit education institutions, NYPA can also educate, encourage, and assist its customers in working with other utilities to implement a comprehensive demand reduction or management strategy. NYPA's ability to fully leverage this opportunity is critical to ensuring that efforts to electrify our economy and new large-load interconnections do not put additional strain or danger on the reliability of the energy grid, which would require prolonged operation of power plants in Disadvantaged Communities. Distributed, customer-sited technologies, like rooftop solar, batteries, EV chargers, and smart devices, require significantly less capital investment and can and must be done through structural programmatic changes to be effective at scale. The PEAK Coalition is encouraged by NYPA's Virtual Power Plant (VPP) pilot demonstration project and its work with customers to facilitate distributed resource development. NYPA should proactively work with its customers and relevant local utilities to scale up and expand such emerging programs and institutionalize demand management, distributed resource development, and VPPs as part of its standard utility operations.

Finally, the framing of the conferral process questions does not adequately capture the purpose or value of the conferral process itself, the binding nature of the CLCPA, or NYPA's unique position, which allows it to develop and own renewable energy generation projects.

The legislative mandate for NYPA to complete this process requires not only that NYPA confer with the public on "the state's progress on meeting the renewable energy goals established by the Climate Leadership and Community Protection Act" but also states that "the information developed through such conferral *shall* be used to identify projects to help ensure that the state meets its goals under the climate leadership and community protection act." (Emphasis added.) The questions included in this process are limited to those that are overly broad and unlikely to elicit responses that will help NYPA identify specific projects, types of projects, locations for projects, and more. Future conferral processes must have more detailed and pointed questions so participants can provide direct and useful insights for NYPA to satisfy legal requirements and environmental justice commitments. These processes must lead to firm, actionable commitments by NYPA that will advance the environmental and social justice objectives mandated by the CLCPA.

The PEAK Coalition is encouraged by the new authorizations and some steps that the New York Power Authority has taken to facilitate the implementation of New York's Climate Leadership and Community Protection Act. At the same time, the PEAK Coalition believes that NYPA can and must do more within its scope to develop renewable energy infrastructure, deploy battery storage, retire fossil fuel facilities, and scale demand management and VPP systems with a focus on creating measurable benefits for Disadvantaged Communities across New York State in a timely manner.

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² N.Y. Pub. Auth. Law § 1005(27-a)(d) (McKinney).

POWER FOR ECONOMIC PROSPERITY (PEP)

August 13, 2024

COMMENTS IN RESPONSE TO NYPA 2024 CONFERRAL PROCESS

Power for Economic Prosperity ("PEP") is a coalition of energy intensive manufacturing companies that receive low-cost hydropower from the Niagara Power Project in Lewiston, New York. PEP is just a subset of the businesses to which the New York Power Authority ("NYPA" or "Authority") supplies low-cost hydropower, and the positive impact of that hydropower on the economy of Western New York cannot be overstated. PEP is pleased to provide these comments to NYPA as part of its Conferral Process.

The companies comprising PEP have a significant economic impact in the communities where they are located, including many which are in economically challenged areas and neighborhoods. Combined, PEP member companies employ approximately 7,500 people, the majority of which are members of various labor unions. The estimated annual payroll of PEP member companies is \$445 million with an additional \$125 million in indirect economic impact. PEP member companies pay an estimated \$50 million in local and state property taxes. PEP member companies that receive low-cost hydropower have invested hundreds of millions of dollars in their Buffalo Niagara region manufacturing facilities, including technologies and equipment to continue lowering our emissions.

PEP member companies expect to continue to invest hundreds of millions of dollars in these facilities over the next five years. However, cost burdens have material impacts on future decisions. PEP members, many of whom have been NYPA customers for decades, rely on NYPA for low-cost hydropower to keep their plants operating in Western New York. The current uncertainty due to the changing regulatory landscape in New York is already affecting decisions on future capital investments at PEP member facilities, which will result in the economic leakage that the CLCPA sought to avoid.

We have set forth below answers to the four questions that NYPA posed as part of its 29024 Conferral Process. In sum, PEP members are not opposed to NYPA playing an important role in the State's pursuit of CLCPA goals as long as the obligations imposed on NYPA are reasonable, as determined by the NYPA Board of Trustees, and do not interfere with NYPA's essential role as a driver of economic development, and protector of jobs, in New York. For example, PEP filed a Memorandum in Opposition to provisions of the Build Public Renewables Act (BPRA") in 2023 because of concerns about the unfunded obligations it would have imposed on NYPA and undermined NYPA's ability provide reliable, low-cost hydropower to their existing Western New York business customers. Imposing expansive but unfunded and ill-defined obligations on NYPA should be avoided at all costs.

POWER FOR ECONOMIC PROSPERITY (PEP)

1. The State's progress toward CLCPA goals.

PEP members are supportive of reasonable and affordable efforts to reach New York's ambitious climate goals, including the mandates in the 2019 Climate Leadership and Community Protection Act (CLCPA), and recognize the urgency to reduce emissions. However, recent reports indicate that a reevaluation of efforts already underway is needed. For example, recent state agency studies have revealed that despite billions in State spending (including but not limited to \$43.7 billion in climate-related spending and commitments under several PSC-directed programs according to the June 2023 Commission report), it is now generally expected that the State will not meet two of the CLCPA's principal mandates - 70% renewable energy generation and 40% greenhouse gas emission reductions by 2030.

The fact that progress on meeting CLCPA goals is delayed does not mean that the State should double down on spending in a fruitless effort to reach unattainable goals. Rather, the State should use this opportunity to pause and conduct a comprehensive assessment of the CLCPA mandates, a comprehensive cost analysis, implementation efforts to date, and future actions. New York needs to make reasonable, necessary adjustments that can keep New York on a path to reduced GHG emissions while avoiding significant adverse energy supply and cost impacts. One such pathway is for the State Legislature to adopt the Governor's proposal in 2023 to use a 100-year methane accounting formula versus the current 20-year formula. Moving forward, the State should continue to develop and refine carefully structured plans that take into consideration the cost and feasibility of technologies, preserve system reliability, and maintain the competitive advantage of low-cost hydropower that keeps the manufacturing sector in Western New York viable.

2. How NYPA can or should support the CLCPA goals.

As noted earlier, PEP members are not opposed to NYPA playing an important role in the State's pursuit of CLCPA goals as long as the obligations imposed on NYPA are reasonable, Accordingly, PEP does not oppose NYPA's expanded role in developing renewable resources. However, while NYPA should be expected to support reasonable, affordable emission-reduction efforts, it should not be saddled with expansive, unfunded obligations designed to achieve unattainable goals.

3. What NYPA is already doing to support the CLCPA goals.

Upon information and belief, NYPA already is aggressively pursuing CLCPA goals. NYPA is committed to a very public process as it puts together a plan to fulfill its legislative obligations under the Build Public Renewables Act which was passed in 2023. This includes outreach to various stakeholders for input as part of the conferral process. For example, NYPA conducted a process in which it issued Requests for Qualifications that resulted in responses by dozens of private sector renewable energy development companies. NYPA must submit its plan for fulfilling its statutory obligations in the BPRA by the end of 2025. In developing this plan, we hope that NYPA will factor in how the costs for building renewable energy projects, which will

POWER FOR ECONOMIC PROSPERITY (PEP)

include stringent prevailing wage and project labor agreement stipulations (PLAs), do not impact the cost of hydropower for its economic development customers.

4. Other Comments

Given that New York State has acknowledged that it will not be able to meet some of its most important statutory thresholds in the CLCPA, there are likely to be future, expensive legislative and/or regulatory proposals to get the state back on track to meet thresholds that cannot be met. Leaving aside the prudence of such spending, PEP is concerned that future legislative proposals could require new roles, responsibilities and/or requirements for NYPA. Any such proposals must be carefully and responsibly drafted so that the Authority's ability to undertake additional CLCPA-related responsibilities recognize NYPA's role as an economic development engine in New York. These proposals should not interfere with NYPA's obligation to provide low-cost, reliable power to New York businesses such as PEP members, in exchange for commitments from those businesses to maintain family-sustaining jobs in New York. At a minimum, all costs associated with expanded roles for NYPA should be "siloed" so that the cost of hydropower provided under NYPA's critical job retention programs are not affected.

PEP appreciates the opportunity to provide these comments, and would be willing to engage in any follow up discussions.

August 13, 2024

RE: NYPA Conferral Invitation

To Whom It May Concern,

The Public Utility Law Project of New York ("PULP") welcomes this opportunity to provide its limited comments for the second round of the New York Power Authority's ("NYPA") Conferral Process.

We commend NYPA Staff for its efforts to conduct outreach on the key issues surrounding progress toward the achievement of New York's Climate Leadership and Community Protection Act ("CLCPA") goals. PULP believes that progress toward an equitable energy transition is of vital importance to New Yorkers and appreciates the continued engagement of stakeholders throughout this process. While PULP has provided limited comments herein, we largely defer to our initial comments on NYPA's Renewable Energy Access and Community Help Program ("REACH") Proposal to indicate our recommendations and priorities.

Lastly, we feel it is critical to note that Laurie Wheelock, Executive Director and Counsel of PULP, who also serves as a Trustee of NYPA, did not participate in the preparation or development of these comments. Her non-participation is due to the direct relation of this matter to her duties with NYPA. The views and opinions expressed herein are solely those of PULP.

Question 1: Please share your thoughts on the State's progress toward CLCPA goals.

- The recent Comptroller audit and the DPS/NYSERDA Clean Energy Standard Biennial Review raised significant concerns about NY's progress toward the achievement of our CLCPA goals. The issues highlighted therein included slow progress generally, the usage of outdated data, and the lack of comprehensive cost analysis.
- From PULP's perspective, we also believe there must be a sustained focus on energy affordability and equity in the public discourse around the clean energy transition. Lowand fixed-income households are already struggling with high utility rates, and the potential for further rate increases to fund renewable energy projects could exacerbate existing financial hardships. Additionally, there is a pressing need for transparency around the costs of the energy transition to ensure that consumers are fully informed and that any financial burden is equitably distributed.

Question 2: Please share your thoughts on how NYPA can or should support CLCPA.

NYPA has a crucial role to play in supporting the goals of the CLCPA. Given its
resources and newly expanded public mandate, NYPA should prioritize efforts that align
with both the state's ambitious climate targets and the needs of its most vulnerable
consumers.

- NYPA can lead the way in expanding large-scale renewable energy projects, particularly in areas where the private sector may be reluctant to invest. By doing so, NYPA can help close the gap in renewable energy capacity needed to meet the CLCPA's targets. However, these projects must be developed with a focus on minimizing costs to consumers and ensuring that the benefits, such as job creation and local economic development, are shared equitably. Additionally, NYPA should increase communication about what projects are in the pipeline and their expected impacts, ensuring that communities are well-informed and can provide input throughout the entire development process.
- NYPA should ensure that its initiatives under the CLCPA do not disproportionately burden low- and fixed-income households. This means prioritizing projects and investments that directly benefit these communities, such as energy efficiency programs and renewable energy installations in disadvantaged areas. The Authority should also actively engage directly with consumers, particularly those from low- and fixed-income households in disadvantaged communities, to ensure their voices are heard in the decision-making process.
- The establishment of the Department of Public Service's Energy Affordability Policy ("EAP") Working Group marked a significant step forward to broaden stakeholder engagement and harness collective expertise to enhance EAP. Given the critical role that NYPA plays in the state's energy transition, PULP believes it is essential that they participate in the proceedings of this working group. NYPA's involvement would bring valuable insights and resources to the table and ensure they are fully integrated into the development of affordability policy improvements.

Question 3: Please share your thoughts on what NYPA is already doing to support the CLCPA.

• PULP applauds NYPA for the expeditiousness of its REACH Proposal. As we described in our comments on that proposal, the REACH Program holds significant potential to advance the State's broader energy affordability policy goals. Through the use of revenues yielded from new renewable generation facilities and other funding sources, REACH will provide tangible benefits for financially vulnerable and disadvantaged utility consumers in areas where those projects are sited. It also will complement and "stack" with other existing affordability programs, ultimately making the benefits of clean and affordable energy accessible to more New Yorkers than ever before.

Question 4: Do you have anything else you would like to share for the record?

PULP would like to emphasize a few additional points for the record regarding the proposed NYPA REACH Program.

 EAP as Sole Qualifier: While PULP appreciates the efficiency of automatically enrolling EAP participants in the REACH Program, we remain concerned that using EAP enrollment as the sole qualifier may unintentionally exclude some of New York's most vulnerable populations. Many low-income households are not currently participating in

- their utility's EAP, despite being eligible. This limitation could significantly reduce the REACH Program's overall reach and effectiveness.
- Revenue Sharing and NYC's Enrollment Advantage in EAP: PULP is also concerned about the potential inequities in the distribution of REACH benefits, particularly the proposed revenue sharing model that may disproportionately favor downstate EAP participants, especially in New York City, where EAP enrollment outpaces the rest of the state. While we recognize the unique challenges in developing large-scale renewable projects in urban areas like New York City, it is crucial that the distribution of benefits does not overlook upstate communities that host these projects and bear the associated environmental and social impacts.
- Moderate-Income Expansion: Lastly, although PULP's mission is dedicated to low-income consumers, we wish to highlight the need for an expedited effort to extend REACH benefits to moderate-income households, who currently may not be receiving any help despite facing significant energy burdens. This population, particularly those earning between 60% and 100% of the state median income, represents a critical segment of New Yorkers who are often ineligible for existing assistance programs yet struggle with high utility costs.

PULP appreciates the opportunity to provide its comments for the second round of the New York Power Authority's ("NYPA") Conferral Process. Given the limited nature of these comments, PULP reserves our right to supplement these comments in future rounds of NYPA's Conferral Process.

Respectfully submitted,

/s

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Statement on the NYPA Conferral Process

July 23, 2024

Robert W. Howarth, Ph.D.

The Atkinson Professor of Ecology & Environmental Biology

Cornell University

and

Member, NY State Climate Action Council

Progress by the State in meeting CLCPA goals: I am very disappointed by the slow progress towards meeting the goals of the CLCPA. As noted in a recent report from the PUC, NY is at least a few years behind schedule in terms of meeting the requirement of 70% of electricity from renewable sources by 2030. An even greater concern to me is the CLCPA goal of reducing all greenhouse gas emissions by 40% by 2030: I have seen no analysis of progress toward this goal, but it seems very unlikely that the State will come anywhere near meeting it.

Energy use in homes and commercial buildings is the singles largest source of greenhouse gas emissions in our State, and progress towards reducing these emissions seems very slow. The Final Scoping Plan of the Climate Action Council, passed on a 19-3 vote in Dember 2022, called for the rapid retrofitting of buildings with heat pumps, moving away from fossil gas, fuel oil, and propane. And the Plan called for ending the subsidy for fossil gas in new construction ("the 100' rule"). The State has not followed this guidance, and in fact public utilities in the State continue to subsidize natural gas appliances used for space heating, water heating, clothes drying, and heating of swimming pools.

The State has not developed a realistic plan for funding the mandates of the CLCPA. One such mechanism is the "cap and invest" plan which was recommended in the CAC Final Scoping Plan. That Plan called for implementing cap and invest by the end of 2023. More than 6 months after this date, there is no clear indication of if and when cap and invest might finally be implemented. Further, A draft of the plan proposed very low fees, well below the DEC-approved social cost of carbon.

How NYPA can and should support the CLCPA: The NYPA can and should be central to meeting the goal for NY's electricity production to be 70% renewable by 2030 and 100% emissions free by 2040. NYPA was given authority, indeed it was directed; to develop a program whereby it plays a direct role in the construction of renewables energy generation. However, the timeline for doing so is overly long: the current plan has the NYPA assessing ideas this year and releasing a roadmap next year. NYPA should greatly speed up the timeline. The climate clock and the 2030 clock is ticking rather loudly.

The CLCPA requires all State agencies and authorities to consider greenhouse gas emission goals in their decision making (Section 7). This clearly applies to the NYPA, and therefore NYPA should be considering CLCPA goals and mandates in their screening decisions and actions on awards for power for economic development. Providing inexpensive power to companies that emit greenhouse gases would not be consistent with the CLCPA. It is unclear if NYPA is conducting the requisite reviews, and if so, how it is determining if the actions it takes will be making achieving the CLCPA goals easier, or harder.

What is NYPA already doing to support the CLCPA?: Unfortunately, I am not able to answer this question, as I am largely unaware of NYPA actions in this regard. As note above, I believe the NYPA is moving too slowly in the development of new renewable power, and it is not clear if and how the NYPA is considering CLCPA mandates when making funding decisions. Beyond this, NYPA may be taking action towards CLCPA goal, but if so, this has not been well publicized.

Columbia Law School | COLUMBIA CLIMATE SCHOOL SABIN CENTER FOR CLIMATE CHANGE LAW

New York Power Authority <u>nyparenewablesconferral@nypa.gov</u> *Via email*

August 13, 2024

RE: Comments of the Sabin Center for Climate Change Law on the New York Power Authority's 2024 Conferral Process

The Sabin Center for Climate Change Law at Columbia Law School (Sabin Center) submits this comment letter to provide feedback and recommendations on how the New York Power Authority (NYPA) can and should support the achievement of the state's climate goals pursuant to the Climate Leadership and Community Protection Act of 2019 (CLCPA).

These recommendations touch briefly on two distinct topics: transmission and generation. First, the Sabin Center encourages NYPA to continue developing "priority transmission projects" that will alleviate bottlenecks to the deployment of renewable energy facilities. To the greatest extent possible, NYPA should focus its resources on projects that will have the maximum impact on decarbonization of the grid, including projects that will allow natural gas peaker plants to be retired as soon as possible—and, before retirement, run less. Second, to the extent NYPA is planning to build solar facilities on farmland, either alone or in partnership with private developers, the Sabin Center encourages NYPA to devote resources to projects with ambitious agrivoltaics plans that allow simultaneous agricultural production on site. Building such projects will help to establish a track record for the successful deployment of agrivoltaics in New York State. Building this track record will, in turn, help to demonstrate that solar generation and agriculture can be mutually compatible, thus helping to rebut one of the more common but largely unfounded arguments against renewable energy development. ¹

BACKGROUND

Sabin Center for Climate Change Law

The Sabin Center is an academic center at Columbia University that develops legal techniques to combat the climate crisis and advance climate justice and trains the next generation of leaders in the field. The Sabin Center has written extensively about New York State's climate laws and regulations. The Sabin Center has also closely monitored developments in those laws and regulations, including by maintaining a New York State Climate Law Tracker and a CLCPA

¹ Matthew Eisenson, Jacob Elkin, Andy Fitch, Matthew Ard, Kaya Sittinger & Samuel Lavine, *Rebutting 33 False Claims About Solar, Wind, and Electric Vehicles*, Sabin Center for Climate Change Law, April 2024 (revised June 2024), at 11-14, https://scholarship.law.columbia.edu/sabin_climate_change/217.

Scoping Plan Tracker, among other resources.² In addition, the Sabin Center runs the Renewable Energy Legal Defense Initiative, which studies legal obstacles to the deployment of renewables and develops strategies for overcoming those obstacles.³

<u>Statutory Basis for NYPA's Investment in Transmission and Generation Facilities to Help the State Meet CLCPA Targets</u>

i. Transmission

NYPA is generally authorized by statute to construct "transmission and related facilities as it deems necessary or desirable to assist in maintaining an adequate and dependable supply of electricity" for its customers.⁴ Several years ago, as part of the 2020–2021 state budget, the legislature more specifically authorized and directed NYPA to develop "bulk transmission investments found by the [New York Public Service Commission (PSC)] to be needed expeditiously to achieve CLCPA targets." These projects are defined by statute as "priority transmission projects."

ii. Generation

NYPA has similar authority to construct generation facilities. Recently, as part of the 2023–2024 state budget, NYPA was authorized and directed to "plan, design, develop, finance, construct, own, operate, maintain and improve, either alone, or jointly with other entities through the use of public-private agreements . . . renewable energy generating projects in the state." The law specified, however, that NYPA should not develop any project on farmland unless it were "in furtherance of an agrivoltaics project."

Importantly, the same law that granted NYPA the power to build renewables also directed NYPA to cease generation at small natural gas power plants (*i.e.*, peaker plants) by the end of 2030, unless NYPA determines that those plants are still needed for emergency purposes or system reliability. ¹⁰

² New York State Climate Law Tracker, Sabin Center, https://climate.law.columbia.edu/content/new-york-state-climate-law-tracker; CLCPA Scoping Plan Tracker, Sabin Center, https://climate.law.columbia.edu/Scoping-Plan-Tracker.

³ Renewable Energy Legal Defense Initiative, Sabin Center, https://climate.law.columbia.edu/content/renewable-energy-legal-defense-initiative.

⁴ N.Y. Pub. Auth. Law § 1005.

⁵ See Accelerated Renewable Energy Growth and Community Benefits Act of 2020 at § 7(5).

⁶ *Id*.

⁷ N.Y. Pub. Auth. Law § 1005.

⁸ N.Y. Pub. Auth. Law § 1005(27-a)(a)(i).

⁹ N.Y. Pub. Auth. Law § 1005(27-a)(b)(i).

¹⁰ N.Y. Pub. Auth. Law § 1005(27-c)(a).

RECOMMENDATIONS

NYPA Should Concentrate Its Transmission-Related Investments on Developing the Projects with the Greatest Potential for Decarbonization

At the outset, the Sabin Center acknowledges that NYPA is already undertaking and planning to undertake substantial investments to meet CLCPA goals. In its VISION2030 report, for example, NYPA explained that its strategy for transmission would include: (a) "[i]nvesting \$200 million to \$400 million annually to grow NYPA's transmission asset base by three to five times by 2030," (b) focusing on "projects that balance system planning, returns and wider state objectives," and (c) "[a]ccelerating New York State's most critical transmission projects in support of CLCPA goals." In that report, NYPA also identified several priority projects that are "likely to be located in the Western and Northern parts of the state to facilitate shifting Renewable Energy Source load to higher demand areas (e.g., downstate)." Moreover, just two weeks ago, NYPA and New York Transco LLC submitted an application to the PSC for the approval of the Propel NY Energy project, which would involve the construction of approximately 90 miles of buried transmission cables to help bring renewable energy to the downstate region. 13

This is a good start. Looking forward, as NYPA considers making additional transmission-related investments to help the state meet its CLCPA goals, including but not limited to any priority transmission projects identified by the PSC, it should prioritize the following: (a) projects that will have the greatest impact on debottlenecking the queue for renewable energy generation facilities; (b) projects that will have the greatest impact on decarbonization; (c) projects that allow natural gas peaker plants, which cause adverse climate and human health impacts, to be taken offline as soon as possible—and, in the interim, to be used less; and (d) projects necessary for debottlenecking, decarbonization, and/or retirement of peaker plants that private sector companies are unlikely to take on alone, whether because of economics, complexity, or other factors.

NYPA Should Devote Resources to Developing Ambitious Agrivoltaics Projects that Set a Precedent for Successful Deployment in New York State

NYPA's power to build renewables is relatively new, and it is too early to comment on NYPA's track record of building such facilities. However, in the event that NYPA decides to devote resources to developing any solar projects on farmland, the Sabin Center recommends that NYPA pursue projects with an ambitious agrivoltaics component, above and beyond the minimum standard required by law.

Conflict over the use of agricultural land is a significant impediment to renewable energy development across the country and in New York State specifically. ¹⁴ Indeed, researchers from

¹¹ New York Power Authority, VISION2030, at 9, https://www.nypa.gov/-/media/nypa/documents/document-library/vision2030/nypa-vision2030.pdf.

¹² Id

¹³ Propel NY Energy, News, https://www.propelnyenergy.com/news.

¹⁴ See generally Matthew Eisenson, Jacob Elkin, Harmukh Singh & Noah Schaffir, Opposition to Renewable Energy Facilities in the United States: June 2024 Edition, Sabin Center for Climate Change Law, June 2024, https://scholarship.law.columbia.edu/sabin_climate_change/226.

Lawrence Berkeley National Laboratory have identified concerns about the loss of agricultural land as one of the main root causes of local opposition to solar facilities. ¹⁵ More specifically, there is a pervasive but unfounded concern that building solar facilities on farmland poses a threat to the food supply. ¹⁶ In addition, there is also a pervasive concern that building solar facilities on farmland will displace jobs in the farming industry, ¹⁷ which is largely overstated. ¹⁸

Agrivoltaics, which involves the dual use of land for solar generation and farming, provides an opportunity to address any concerns about the loss of farmland by keeping the land in production and providing employment opportunities for agricultural workers. Because this practice is relatively new, there are relatively few examples of deploying agrivoltaics at scale in New York State. However, examples are beginning to emerge in other states. ¹⁹ To the extent NYPA decides to develop solar projects on farmland, it should pursue ambitious demonstration projects that maintain high levels of agricultural production. Building these projects could help to demonstrate that solar development can be compatible with farming and that agrivoltaics can be achieved at scale, thereby addressing a major source of opposition to renewable energy projects.

Respectfully submitted,

/s/ Matthew Eisenson

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¹⁵ Robi Nilson et al., Survey of Utility-Scale Wind and Solar Developers Report, Berkeley Lab (Jan. 2024), at 22, https://emp.lbl.gov/publications/survey-utility-scale-wind-and-solar.

¹⁶ Matthew Eisenson, Jacob Elkin, Andy Fitch, Matthew Ard, Kaya Sittinger & Samuel Lavine, *Rebutting 33 False Claims About Solar, Wind, and Electric Vehicles*, Sabin Center for Climate Change Law, April 2024 (revised June 2024), at 11-14, https://scholarship.law.columbia.edu/sabin_climate_change/217.

¹⁷ See, e.g., How Solar Affects You!, No To Solar, https://www.notosolar.com/how-solar-affects-you ("[A] [s]ubstantial amount of revenue is shifted out of the agricultural realm when farmland is developed into solar farms. This results in a loss of jobs, loss of farm equipment and supplies sold, and a loss of consumer produce.").

¹⁸ 5 Moser Suppl. Testimony, Attachment SM-1, Agricultural Economic Impacts in Oak Run Solar Project, In re Application of Oak Run Solar Project, LLC, Nos. 22-549-EL-BGN, 22-550-EL-BTX (O.P.S.B. May 11, 2023), at 3, 22-27, https://dis.puc.state.oh.us/ViewImage.aspx?CMID=A1001001A23E11B60909C02064 (finding that ambitious agrivoltaics plans will support more farming-related jobs on the same land than farming alone).

¹⁹ In Ohio, for example, state authorities recently approved the 6,050-acre Oak Run Solar Project, which will be required to incorporate 4,000 acres of crops and 1,000 sheep on site. *See* Matthew Eisenson, *Ohio Approves Nation's Largest Agrivoltaics Project, Finding It Will Serve the Public Interest*, Climate Law Blog, Apr. 1, 2024, https://blogs.law.columbia.edu/climatechange/2024/04/01/ohio-approves-nations-largest-agrivoltaics-project-finding-it-will-serve-the-public-interest/.

Representing over 15,000 IBEW Utility Workers in NYS

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Mr. Justin Driscoll President and CEO New York Power Authority 123 Main St. White Plains, NY 10601

August 9, 2024

Regarding: Comments directed on the implementation of the BPRA

Dear Mr. Driscoll:

The IBEW Utility Labor Council of New York State, representing approximately 15,000 utility workers state-wide, appreciates the opportunity to provide comments on the state's progress toward CLCPA goals and how NYPA can assist in supporting those goals. We would like to offer comments on two issue areas related to advancing the goals of the CLCPA. The Build Public Renewables Act provides NYPA with the tools and guidance to significantly change the renewable energy generation landscape. One, we believe that the advancement of workforce development and retraining is fundamentally important to achieving the CLCPA goals. NYPA has a unique opportunity to invest in and guide the emerging renewable energy workforce. Two, we believe that investor-owned utilities should have the legal authority, on a limited basis, to participate in renewable generation projects.

The increased complexity of working towards the goal of managing an energy generation portfolio almost exclusively consisting of renewable energy means we must constantly adapt our systems and learn new skills to ensure reliability. With all these



changes, there continue to be many challenges. The rapid pace of new regulations and technologies means ongoing training is vital. We need to stay informed and adaptable to manage these shifts effectively while ensuring safety and reliability. We recognize that it would certainly be beneficial to achieving the goals set forth in the CLCPA if NYPA expands its portfolio into renewable energy generation. Supporting large-scale solar, wind, and other projects not only aligns with CLCPA goals but also could set a strong example for why investor-owned utilities should have limited participation in this sector. As the energy landscape evolves, so does the need for specialized skills. The Department of Labor in conjunction with NYPA should focus on training programs and professional development for this emerging workforce. This will ensure that we are equipped to handle new technologies and methodologies required to meet CLCPA goals. We look forward to the DOL and the NYPA collaboratively investing in workforce training and development. As new technologies and methods are adopted, ensuring that our workers have the necessary skills and knowledge is vital. A small investment now will not only help us stay effective but also support the broader transition to a sustainable energy system. That being said, the members of our organization are disappointed in the lack of progress, investment, and communication between the affected unions and government entities. When the BPRA became law, it contained a provision that would require the operation and maintenance of NYPA renewable generation facilities be offered to workers that are transitioning from the fossil fuel industry. The DOL is required to keep a list of these workers and unions that represent the transitioning workers are required to provide the DOL with such lists of those who lost or are losing their jobs. The DOL is then required to provide that list to NYPA or the developer of the renewable energy generation facility 90 days prior to operation. Shortly after passage of the law, a conversation took place that laid the groundwork for a process and a determination that a training component needed to be discussed to assist in this transition. It's been over a year and there has been no communication or updates on this statutory requirement. The development of this process is fundamental to the success of this act, as it could be the template to supporting additional transitional opportunities for non-NYPA related renewable energy generation projects. Below are some of the discussion points which the IBEW Utility Labor Council feels can prepare our workforce to meet the CLCPA goals.

Assessment of Current Skills and Career Counseling

Skills Inventory: Conduct an assessment to determine the current skills, qualifications, and experience of fossil fuel industry workers including technical skills, safety certifications, and operational experience.

Career Counseling: Provide individual counseling to help workers understand how their existing skills can transfer to the renewable energy sector and to identify any additional training or certifications needed.

Development of a Retraining Program

Curriculum Design: Collaborate with union officials, educational institutions, industry experts, and renewable energy companies to develop a comprehensive retraining

curriculum. This should include both theoretical knowledge and hands-on experience in areas such as solar, wind, energy storage technologies, and other emerging technologies.

Certification/ Apprenticeship Programs: Establish partnerships with certification bodies or government entities to offer credentials that are recognized in the renewable energy industry.

Training Implementation

Workshops and Courses: Offer workshops, online courses, and hands-on training sessions focusing on renewable energy technologies, systems, and maintenance practices. Ensure the training is practical and relevant to current industry needs.

On-the-Job Training: Create internship or apprenticeship opportunities with renewable energy companies where retraining participants can gain real-world experience and network with industry professionals.

Job Placement and Hiring Preferences

Job Matching: Develop a DOL job placement program that connects retrained workers with job openings in NYPA's renewable energy sector. Create a database of trained workers and match them with job opportunities based on their skills and interests.

Hiring Preferences: Enforce the implementation of hiring preferences for retrained fossil fuel workers at NYPA created generation facilities

By following this process, utility workers transitioning from the fossil fuel industry can effectively acquire new skills and find rewarding employment opportunities in the renewable energy sector, contributing to a more sustainable future while ensuring their continued career development. Without such program, there will be a skills gap that will slow down the progress and goals of the CLCPA

While we believe that labor's participation in the renewable energy sector will provide a significant boost to achieving the goals set out by the CLCPA; we also think that it is critical for investor-owned utilities to participate in renewable energy generation providing them a carve out from deregulation specifically for this type of energy. Below are some of the discussion points which the IBEW Utility Labor Council feels should be considered when discussing the utilities involvement to help achieve the CLCPA goals.

Aligning with Climate Goals and Sustainability

Investor-owned utilities have historically been barred from the role of energy generation in New York State. However, in the context of achieving the climate goals set forth in the CLCPA, their participation in renewable energy generation is essential. Deregulation should not preclude utilities from participating in renewable energy projects, as their involvement can accelerate the transition to clean energy, reduce greenhouse gas emissions, and support our climate goals.

Leveraging Expertise and Resources

Utilities possess significant expertise, infrastructure, and financial resources that can be leveraged for renewable energy projects. Their existing knowledge in managing large-scale energy projects, coupled with substantial capital investment capabilities, enables them to effectively develop and deploy renewable energy technologies. Allowing utilities to participate ensures that these valuable resources are utilized in advancing renewable energy initiatives, which can enhance the overall efficiency and effectiveness of the energy transition.

Ensuring Reliability and Grid Stability

Renewable energy sources, while crucial for reducing carbon emissions, can introduce variability and challenges in grid management. Utilities with their experience in grid operation and management, can contribute to stabilizing the grid and integrating renewable energy sources seamlessly. Their participation can lead to the development of advanced grid technologies and energy storage solutions that ensure a reliable and resilient energy supply, balancing the benefits of renewable energy with the need for grid stability.

Enhancing Investment in Renewable Infrastructure

Utilities bring substantial, coordinated investments into large-scale renewable projects. This can drive economies of scale, reduce costs, and promote the development of significant renewable energy infrastructure that might otherwise be unachievable in a fragmented market.

Addressing Energy Equity and Accessibility

Utilities have a long-standing commitment to providing reliable and affordable energy to all consumers, including underserved communities. Their involvement in renewable energy projects can help ensure that the benefits of clean energy are distributed equitably across different socioeconomic groups. Utilities can implement programs that provide access to renewable energy solutions for low-income households, enhance energy affordability, and support community-based renewable initiatives.

Facilitating Transition and Mitigating Disruptions

The transition to a renewable energy future can be complex and disruptive. Utilities with their established infrastructure and operational experience, can facilitate a smoother transition by integrating renewable energy into existing systems and minimizing disruptions. Their participation helps ensure a more orderly and manageable transition process, reducing the risk of energy shortages and operational challenges.

We support allowing investor-owned utilities limited participation in renewable energy generation, even in a deregulated market, as vital for achieving climate goals, leveraging expertise and resources, ensuring grid stability, and promoting fair competition and energy equity. By integrating the strengths of utilities into the renewable energy landscape, we can more realistically progress towards the goals of the CLCPA. The

participation of utilities in renewable energy generation is not just a matter of policy convenience but a strategic imperative for realizing New Yorks energy targets.

In conclusion we believe that training the workforce now for jobs emerging over the next decade is critical to supporting the goals of the CPA. In addition, we also believe that allowing investor-owned utilities to participate in renewable generation will have a significant positive impact in attempting to meet climate targets. Thank you for the opportunity to offer these comments.

Sincerely

Patrick Guidice