NYPA Renewables Strategic Plan

Public Comment Draft

October 8, 2024

NEW YORK STATE | NY Power Authority

1 EXECUTIVE SUMMARY

The Power Authority of the State of New York ("NYPA" or the "Power Authority") is pleased to publish for public comment and hearings its inaugural draft Strategic Plan for developing new renewable energy generation projects to supply New Yorkers with affordable, reliable, and emissions-free electricity.

The 2023-24 Enacted State Budget authorized and directed the Power Authority to engage in the largest expansion of our responsibilities in decades to advance renewable energy and support other state priorities. This expanded authority will enable NYPA to accelerate the development of renewable energy, support workforce training for jobs in the renewable energy sector, and to establish the Renewable Energy Access and Community Help (REACH) program to provide bill credits for low- and moderate-income ratepayers in disadvantaged communities served by New York's investor-owned utilities.

In the time since Governor Kathy Hochul signed the State Budget into law on May 3, 2023, NYPA has made major progress toward the development of new renewables. This progress includes establishing the business structures, filling key personnel roles, and garnering other necessary resources to carry out our new missions, all while advancing the first tranche of projects.

With the opportunity to become a leader in responsible development of new renewables, NYPA aims to expeditiously build affordable projects, staying grounded in our commitment to the communities in which we operate now and in the future, all while ensuring fair and family-sustaining worker wages.

We are proud to present this inaugural NYPA Renewables Strategic Plan, which describes how the Power Authority will operationalize our new renewables work, along with our continued and critical obligations to our existing generation, transmission, customer, and community commitments.

This plan is built on the continuing efforts of NYPA staff to develop an ambitious and scalable model to build renewables, including:

- Issuing a Request for Information (RFI) in January 2024 to identify developers interested in collaborating with NYPA. More than 170 entities expressed an interest in NYPA's renewable energy activities; several indicated a willingness and desire to partner with NYPA.
- Launching a Request for Qualifications (RFQ) in early 2024 to pre-qualify renewable energy and energy storage developers and investors to ensure our ability to rapidly partner and deploy projects. To date, NYPA has pre-qualified 84 developers and investors under the RFQ for potential collaborations that may arise in the future. The Power Authority has already engaged several of these qualified developers in negotiations to enable or accelerate renewable energy generation projects that are already in development. We are continuing to engage with qualified developers to pursue new opportunities on an ongoing basis.
- Conducting two statewide conferral processes with stakeholders and community members to gather their input to inform on our renewable development priorities.

- NYPA also engaged its sister agencies and public authorities, including the New York State Energy Research and Development Authority (NYSERDA), the New York State Office of General Services (OGS), and the New York State Department of Corrections and Community Supervision, to identify public lands suitable for development.
- NYPA's legal, finance, and taxation experts and outside counsel conducted comprehensive research on financial structures to maximize renewable energy development, while limiting risk to the Power Authority and its customers.
- NYPA and the Empire State Development Corporation, through the Job Development Authority (JDA), created a local development corporation that will act as a conduit bond issuer with the ability to finance NYPA's renewable energy generating projects.

NYPA continues to move forward with steps to accelerate our ability to build renewables, including:

- In October 2024, the Power Authority's Board of Trustees will vote on establishing a wholly-owned subsidiary that will allow NYPA to bring in external capital more easily, as well as to protect the Power Authority against project risks, both of which increase the amount of renewable energy that NYPA can deploy.
- The Board of Trustees will also vote in October 2024 on an initial investment of $100 million in new renewable energy generation.

Our completed and active efforts are summarized in this inaugural NYPA Renewables Strategic Plan, in which NYPA is unveiling the first tranche of projects that will establish the Power Authority as a key player in the development of new renewable energy generation. This inaugural plan includes 40 projects, in every region of New York State, for a total potential renewable growth of 3.5 GW.

Strategic Plan Release and Hearing Schedule		
Draft NYPA Renewables Strategic Plan Released		**Tuesday, Oct. 8**
Western New York Hearing	**Niagara Power Vista** 5777 Lewiston Road Lewiston, NY 14092	Thursday, Nov. 7, 2024 10 a.m. – noon and 6 to 8 p.m.
Southern Tier Hearing	**Holiday Inn Downtown** 2-8 Hawley St. Binghamton, NY 13901	Thursday, Nov. 14, 2024 10 a.m.to noon and 6 to 8 p.m.
Capital Region Hearing	**Albany Capital Center** 55 Eagle St. Albany, NY 12207	Monday, Nov. 18, 2024 10 a.m. to noon and 6 to 8 p.m.
New York City Hearing	**John Jay College – Gerald W. Lynch Theater** 524 West 59th St. New York, NY 10019	Wednesday, Nov. 20, 2024 10 a.m. to noon and 6 to 8 p.m.
Virtual Hearing	**Zoom**	Thursday, Nov.21, 2024 10 a.m. to noon and 6 to 8 p.m.

Long Island Hearing	**Suffolk County Community College – Grant Campus** 1001 Crooked Hill Road Brentwood, NY 11717	Monday, Nov. 25, 2024 1 to 3 p.m. and 6 to 8 p.m.
NYPA Board of Trustee vote on NYPA Renewables Strategic Plan		**January 2025 (Date forthcoming)**

Until 2035, NYPA will update each biennial strategic plan annually as needed, after a public comment period of at least 30 days and at least one public hearing. Each update will include a review of the implementation of projects previously included, including status in the interconnection queue. The NYPA Renewables Strategic Plan and any updates of the plan are not deemed final until they are approved by our Board of Trustees.

2 NYPA AND OUR EXPANDED MISSION

The 2023-24 State Budget authorized the most significant expansion of NYPA's authority under the Power Authority Act in a generation. This expanded authority builds on the day-to-day work of NYPA staff to supply the state with reliable electricity, expand New York's transmission system, and provide clean, affordable power and innovative energy services to our customers.

The enactment included four new areas of responsibility for NYPA, one of which expanded our authority to develop, own, and operate renewable energy generation projects to help meet the state's clean energy goals. The expanded authority directed NYPA– beginning in 2025 and biennially thereafter– to develop and publish a renewable energy generation strategic plan that identifies our renewable energy generating priorities for the next two years. In addition, NYPA is directed to update the plan annually and may update the plan more often than annually if needed.

Beyond directing NYPA to build renewables, the budget enactment contained several other mandates:

- NYPA will work with the New York State Public Service Commission (PSC) to establish the REACH program to provide renewable energy bill credits to low- or moderate-income New Yorkers in disadvantaged communities;
- NYPA will invest up to $25 million annually in workforce training in collaboration with the New York State Department of Labor (DOL);
- NYPA will lead the Decarbonization Leadership Program, which calls for the development of energy and emissions profiles for state government's largest carbon-emitting facilities and decarbonization action plans that will guide state agencies on facility improvements that will reduce carbon emissions;
- NYPA will cease fossil fuel generation at its small natural gas power plants by the end of 2030, so long as electric system reliability and environmental conditions allow.

2.1 About NYPA

NYPA is America's largest state power organization, with 17 generating facilities and more than 1,550 circuit-miles of transmission lines. Our vision is a thriving, resilient New York State powered by clean energy. Our mission is to lead the state's transition to an emissions-free, economically vibrant New York through customer partnerships, joint development opportunities, innovative energy solutions, and the responsible supply of affordable, clean, and reliable energy.

VISION2030, NYPA's 10-year strategic plan, guides our efforts and prioritizes investments and activities to mitigate and adapt to climate change. VISION2030 is being updated to incorporate our new mandates.

The 2019 Climate Leadership and Community Protection Act (CLCPA or "Climate Act") sets forth a plan for New York State to eliminate emissions from the state's electricity grid by 2040 and reach a carbon-neutral economy by 2050. The law aims to ensure the availability of sustainable, reliable, and affordable power for all New Yorkers and to promote growth in clean energy technology and electrification. VISION2030 aligns with and supports the achievement of CLCPA goals and reinforces our commitment to put the people of New York first, stimulating job creation and capital investment, and contributing to a stronger economy.

The Power Authority owns and operates three large hydropower generating facilities; two fossil fuel-powered generating facilities; 11 small natural gas power plants (SNGPP); four small hydroelectric facilities; and one utility-scale battery energy storage system. These assets total approximately 6,000 megawatts (MW) and generate 22% of the electricity made in New York State. In 2023, 84% of our power generation was clean, renewable hydropower. NYPA's work has been entirely self-funded.

State and federal regulations shape NYPA's diverse customer base, which includes large and small businesses, not-for-profit organizations, community-owned electric systems, rural electric cooperatives, and government entities. The Power Authority provides the lowest-cost electricity in New York State and is the only statewide electricity supplier. A complete list of our customers is available here.

We provide our customers with electricity and offer energy services to help them achieve their decarbonization and electrification goals. Our low-cost, clean hydropower promotes economic development and supports more than 455,000 jobs in New York State.

In addition to generation, NYPA is a national leader in promoting energy efficiency, the development of clean energy technologies, and the adoption of electric vehicles. The Power Authority's energy efficiency projects save electricity and taxpayer dollars while reducing greenhouse gas emissions.

2.2 Additional Components of our Expanded Authority

2.2.1 Workforce Development and Training Investment

In addition to our current work to support workforce development and training, NYPA, in collaboration with the Department of Labor (DOL), is authorized— as deemed

feasible and advisable by our Board of Trustees— to make available up to $25 million annually. These expenditures may be used to fund programs established or implemented by or within the DOL, including the Office of Just Energy Transition and programs for workforce training and retraining, to prepare people for employment in the renewable energy field.[1]

In March 2024, NYPA and the DOL entered into a Cooperative Agreement for programs related to workforce training, retraining, and apprenticeship opportunities in the renewable energy field.

NYPA's Board of Trustees has approved investment in the following initiatives:

2.2.1.1 DOL Workforce Training Initiative

$5 million was authorized for this DOL initiative to expand or create statewide clean energy training programs and pre-apprenticeship opportunities, including the provision of wraparound services for participants.

2.2.1.2 DOL Support Services Funds

$4 million was approved for this DOL initiative to create two separate $2 million funds to be distributed to local workforce development boards. Local workforce development boards will use these funds to support transitioning workers in reskilling from fossil fuel work for the renewable energy field, as well as residential worker support in the fields of weatherization and building performance. Each DOL fund includes a supportive services component that includes assistance with childcare, transportation, housing stability, food, mental health services, substance use treatment, and life-skills training.

2.2.1.3 NYPA Clean Energy Workforce Training Initiative

$2.55 million has been authorized for this NYPA initiative to partner with training providers to develop technical training opportunities, hands-on experience, paid internships, and full-time jobs for people entering the workforce. The funds will also advance training opportunities for traditional utility workers to ensure that new and current employees have the requisite skills and qualifications to participate in New York's clean energy now and in the future. This initiative is regionally focused, providing employment training and employment opportunities for residents in disadvantaged communities located in the vicinity of NYPA generation assets.

2.2.1.4 NYPA Say Yes Buffalo Youth Apprenticeship Program

A $600,000 grant to Say Yes Buffalo Scholarship, Inc. will partially fund an effort known as the "Say Yes Buffalo/CareerWise Greater Buffalo Modern Youth Apprenticeship Program." This apprenticeship program places recent public high school graduates in one- to three-year structured work-based learning apprenticeships at committed industry partners in high-demand sectors.

2.2.1.5 Renaissance Technical Institute

This $500,000 joint initiative between NYPA and DOL provides a grant to the Renaissance Technical Institute (RTI) in New York City to partially fund a six-month paid internship program. Students who successfully complete the program will be offered jobs with participating companies in the clean energy field. RTI's mission is to inspire at-risk youth in disadvantaged communities by providing them with all-inclusive,

[1] PAL § 1005(27-d).

free vocational training/education and provide them a pathway to career opportunities in the renewable energy field. RTI has several vocational programs, but this grant is for a paid internship program involving plumbing, carpentry, electrical, HVAC, and solar panel installation. This grant will allow the program to cover the cost to enroll approximately 100 to 120 students.

2.2.2 Renewable Energy Access and Community Help ("REACH")

In January 2024, NYPA filed a petition with the PSC to establish the REACH program to provide electric utility bill credits for low-income households in disadvantaged communities.

The bill credits will be funded from a portion of revenues from new renewable energy generating projects developed or contracted by NYPA and designated for REACH, and from other authorized contributions.

NYPA worked with NYSERDA and the New York State Department of Public Service (DPS) to prepare the petition to ensure that the program would build upon existing efforts, such as the Energy Affordability Program and Statewide Solar for All. REACH will provide meaningful benefits to low-income electricity customers in disadvantaged communities as the state transitions to a clean energy economy.

In February 2024, the PSC published a notice of the petition and requested public comments. On May 3, 2024, NYPA published a report to the Governor and state legislative leaders on the feasibility and advisability of implementing a program similar to REACH in the service territories of municipal distribution utilities and rural electric cooperatives. In June 2024, after public comments on the REACH petition were filed with the PSC, NYPA filed additional reply comments.

2.2.3 Decarbonization of the Small Natural Gas Power Plants

In conjunction with its expanded authority to develop new renewable resources, the 2023-2024 Enacted State Budget directed NYPA to publish a plan by May 3, 2025, to stop generating electricity with fossil fuel at its 11 small natural gas power plant (SNGPP) units located at 7 sites in New York City and on Long Island by the end of 2030, if conditions allow. NYPA plans to cease fossil-fuel generation at these sites so long as individual plants are not needed for emergency power, to meet a reliability need, and if emissions from replacement resources do not result in more than a de minimis increase in emissions of carbon dioxide or criteria air pollutants within a disadvantaged community. In furtherance of this requirement, NYPA is prioritizing the advancement of renewable energy generating projects that benefit communities served by SNGPPs. Also, based on a prior RFP and separate from this Strategic Plan, the Power Authority is in negotiations with respect to battery storage at three of the SNGPP sites. NYPA has also issued an RFI to solicit ideas for development of its Kent SNGPP site. NYPA will continue to solicit community views on the future of these sites and will publish the initial phase-out plan required by PAL § 1005(27-c) no later than May 3, 2025.

2.2.4 Decarbonization Leadership Program

As part of New York's 2023-2024 Enacted State Budget, NYPA was directed to develop decarbonization action plans for 15 of the highest-emitting state government facilities. The NYPA-led Decarbonization Leadership Program will address this requirement and enable state entities to identify impactful projects and programs to

electrify and decarbonize these 15 facilities.

Future decarbonization projects have the potential to create significant new clean energy jobs and may include innovative new technologies, such as thermal energy networks that could connect multiple buildings to emissions-free energy sources. NYPA and OGS recently released an Energy Master Plan focused on decarbonization for the Empire State Plaza in Albany, which will serve as the prototype for other decarbonization plans. NYPA is on schedule to deliver the decarbonization action plans in January 2026.

2.3 NYPA's Additional Commitments to Energy and the Environment

NYPA's expanded authority builds on our strong track record of facilitating and implementing the Climate Act. Our VISION2030 Strategic Plan, published in 2020, included an updated mission statement to reflect a commitment to the CLCPA.

2.3.1 Existing Generation

NYPA generates 22 percent of the state's power, more than 80 percent of which is clean, affordable hydropower. NYPA's hydropower is the foundation of New York's grid—both today and in an emissions-free future.

NYPA operates three large-scale hydroelectric plants: the Niagara Power Project (opened in 1961), the St. Lawrence-Franklin D. Roosevelt Power Project (1958), and the Blenheim-Gilboa Pumped Storage Power Project (1973). To continue the safe and reliable operations of these assets, the Power Authority has committed to significant ongoing investment, including, for example, a 15-year, $1.1 billion modernization and digitization program (Next Generation Niagara) at the Niagara Power Project, the largest source of clean electricity in New York State and one of the country's largest hydroelectric projects.

The Power Authority also operates two fossil fuel-powered generating facilities and 11 SNGPPs. NYPA has committed to retiring all fossil units by 2035. As mentioned above, NYPA is directed to cease electricity production using fossil fuels at the SNGPPs by the end of 2030, as long as reliability and environmental conditions are met. NYPA will make decisions on a plant-by-plant basis after receiving public comment and holding a hearing.

2.3.2 Transmission

In addition to managing more than 1,550 circuit miles of high-voltage transmission in New York State, the Power Authority is investing in the most ambitious transformation of the state transmission system in more than 40 years. No entity—public or private—is doing more transmission work in New York than NYPA. Our direct investments of over $2 billion in the Smart Path, Central East Energy Connect (CEEC), Smart Path Connect, and Propel NY projects have enabled an additional $3.7 billion of private

investment.

NYPA completed the Smart Path project in the summer of 2023, rebuilding more than 78 miles of transmission in the North Country, and we are modernizing an additional 100 miles of transmission through Smart Path Connect in Northern New York and the Mohawk Valley. NYPA's investments in Smart Path and Smart Path Connect are creating a 345-kilovolt (kV) corridor that significantly increases transmission capacity in New York State, which enables 900 MW of renewable energy to be delivered to 900,000 homes statewide. The projects also decrease annual carbon dioxide (CO_2) and nitrogen dioxide (NOx) emissions by 1.16 million tons and 160 million tons, respectively, and results in $447 million in annual congestion savings for ratepayers. At the end of 2023, NYPA completed CEEC, an upgrade of transmission assets between Albany and Oneida counties, which had been one of the most heavily congested transmission areas in the state power grid. CEEC was one of two segments selected by the New York Independent System Operator (NYISO) in the Public Policy Transmission Planning Process, which solicited transmission solutions to unbottle the NYISO's Central East interface to allow renewable energy to flow downstate. CEEC increased the Central East transfer limit by at least 350 MW, increased voltage transfer by 875 MW, and reduced CO_2 emissions and congestion costs.

NYPA continues to invest in its existing transmission network. We are investing $85 million to reconductor the Long Island Sound Cable (also known as Y-49) transmission line and are investing approximately $350 million in the Stewart Avenue - Uniondale Hub Substation (formally East Garden City Substation) to facilitate the Propel NY project. NYPA's Transmission Life Extension and Modernization program is ongoing and we expect to invest an additional $150 million through 2027. NYPA is also advancing additional major transmission projects.

2.3.3 Customer Energy Services

In addition to providing customers with low-cost hydropower, NYPA enables approximately $250 million a year in energy services investment. NYPA works with state agencies, municipalities, transit organizations, and educational institutions as a trusted advisor to help achieve their decarbonization goals.

Our energy services are focused on three key areas to best support New York State energy goals: facility decarbonization through energy efficiency and electrification; electric vehicle (EV) charging infrastructure to support adoption; and distributed energy resources, including customer-sited renewables.

These solutions have resulted in nearly $4 billion in investments to date. NYPA's Distributed Energy Resources Advisory group has enabled 62.4 MW of solar to date, with an additional 351.23 MW in the project pipeline. Through our Smart Street Lighting NY program, we help municipalities purchase their streetlights from private utility companies and upgrade them to energy-efficient, smart-controlled LED lighting. Additionally, NYPA enables the transition to electric transportation by expanding EV charging infrastructure for our customers and the public, including our EVolve NY program, which operates 170 direct current fast chargers across the state.

NYPA's commitment and expertise in building decarbonization was further recognized in the 2023-2024 Enacted State Budget, which entrusted us to manage the Decarbonization Leadership Program on behalf of New York State.

2.3.4 Canals

In 2017, state lawmakers granted NYPA stewardship of the New York State Canal System. NYPA and the New York State Canal Corporation (a NYPA subsidiary) seek to preserve the heritage of the Canal System and maintain it as a source of economic growth for its next century of operation.

The Canal Corporation is prioritizing safety, incorporating sustainable practices, and promoting innovation. We invest more than $140 million every year to operate and revitalize the Canal System.

NYPA also committed $300 million under our Reimagine the Canals initiative, which is an investment in resilience, regeneration, restoration, reuse, and retrofit. As we prepare to celebrate the bicentennial of the Erie Canal in 2025, NYPA is committed to enhancing the resilience and economic growth potential of the canal system.

2.3.5 NYPA Environmental Justice

NYPA has a long-standing commitment to environmental justice (EJ) and has been a leader in community-based engagement and programming in historically disadvantaged communities for more than 20 years.

In 2016, we revamped our EJ program by conducting a yearlong listening tour in underserved communities to hear their needs and priorities and to inform our work. We created a dedicated EJ department with established stakeholder relationships built on a track record of investment, mutual trust, and program success. Our goal is to ensure that EJ communities are prioritized in the transition to a clean energy economy. NYPA's EJ program leverages our expertise in generation, transmission, renewable energy, and EV technology to provide meaningful programs in four fundamental areas: public education, community energy projects, community engagement, and workforce development.

Public Education: NYPA EJ education programs are designed to increase community understanding of electricity, climate change, and the clean energy transition. We provide multi-lingual energy literacy programs delivered by NYPA environmental educators and community-based educators. NYPA is committed to ensuring that historically disadvantaged communities are central to our planning when we invest in new projects or infrastructure.

Examples include:

- **Indoor Food Production (IFP)**: Since 2020, NYPA has participated in a multi-state research collaborative aimed at informing electric grid design and the energy consumption associated with controlled agriculture initiatives. As part of the research, shipping container farms are placed in food deserts (census tracts that experience high rates of poverty and limited access to grocery stores that offer fresh and nutritious foods) to support climate-vulnerable communities by creating a microclimate that optimizes year-round healthy food production. NYPA has invested more than $1 million in IFP programs in partnership with Black Urban Growers in Harlem and the East Side of Buffalo; projects are coupled with climate justice and urban farming training and curriculum. At the school level, NYPA's Green Classrooms program involves the creation of hydroponic science labs in New York City public schools, including teacher

training and student research. NYPA supports 23 schools including a New York City Housing Authority community center.

- **Energy Storage**: NYPA's Research & Development team is engaged in long-duration energy storage research and our EJ group is developing community curriculum and workshops to promote equitable access to clean energy infrastructure and to solicit feedback on the project. We will educate communities about the careers and jobs associated with the project, including the role of energy storage in decarbonization.
- **Community Energy Projects:** NYPA's EJ program implements community energy projects to bring new resources into disadvantaged communities and increase access to clean energy.

Examples include:

- Installation of energy-related infrastructure and educational exhibits at the Explore and More Children's Museum in Buffalo.
- Replacement of energy-intensive appliances at the Massena Housing Authority.
- LED lighting upgrades at the Niagara Falls Housing Authority, reducing operational and maintenance costs and improving public safety.
- Collaboration with academic institutions to build programs that prioritize disadvantaged communities. In 2023, NYPA funded Bronx Green Action, an environmental sustainability challenge for Bronx-based colleges to advance energy-related climate solutions and green jobs training. Bronx Community College was the inaugural winner of the $1 million award.
- A $1 million energy efficiency project at the Tuscarora Nation Elementary School in Western New York that provided energy-efficient upgrades to the school's heating and water filtration systems.

Community Engagement: NYPA has a strong legacy of community engagement. Our EJ team works as an internal advocate on behalf of communities to ensure that their concerns are prioritized and incorporated into NYPA's strategic planning. Our staff hosts meetings and site tours between critical stakeholders, advocates, and NYPA business units to incorporate a justice lens and inform the Power Authority's program development and execution.

For example, in 2020, NYPA signed a Memorandum of Understanding with the PEAK Coalition, a group of five leading environmental justice and clean energy interests, to jointly evaluate the transition of NYPA's SNGPPs in New York City and on Long Island. The landmark agreement resulted in recommendations for clean energy technologies, such as battery storage and low- to zero-carbon emission resources and technologies, while continuing to meet the unique electricity reliability and resiliency requirements of New York City. The agreement also informed the development of our bulk energy storage RFP and is part of an ongoing monthly meeting between PEAK Coalition and NYPA.

Workforce Development: NYPA recognizes the opportunities for workforce development in the clean energy transition. We are investing in robust internship programs for early career students, a fellowship for high school students, scholarships for college students interested in clean energy careers, and an EV training program. The goal of our EJ workforce development initiatives is to ensure that students in historically disadvantaged communities are equipped to

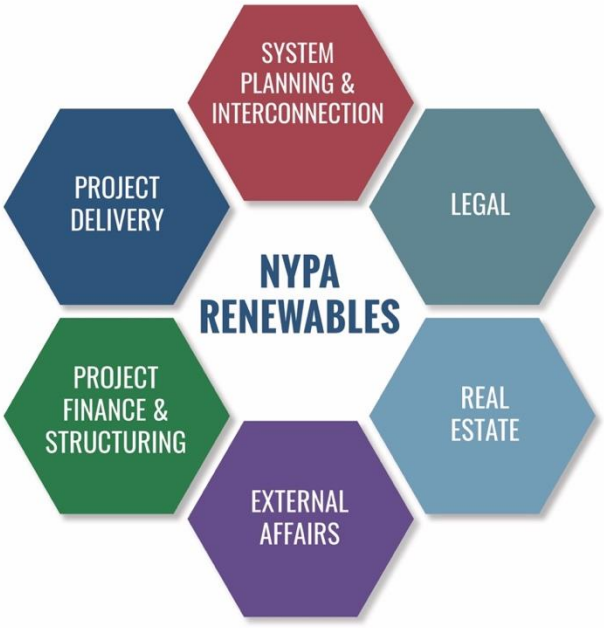
participate in the transition to a clean energy economy. Our programs serve as a pipeline to break down traditional barriers to entry to careers in the utility industry and to promote a more diverse candidate pool for the growing needs of the clean energy industry.

Examples include:

- **Pathways in Technology Early College High School (P-TECH) Scholars Program**: NYPA has made a five-year commitment to serve as an industry partner by supporting students from ninth grade to the completion of a free, energy-related associate's degree. We support 16 school districts and community colleges in historically disadvantaged communities close to NYPA assets. Since 2021, we have supported 125 students with paid summer internships that include industry-recognized certifications in energy auditing, HVAC, and drone technology.
- Additionally, NYPA's **Future Energy Leaders College Scholarship** provides a $10,000 scholarship in partnership for students pursuing an energy-related college degree. We have supported 50 students with a goal of 70 students over five years. NYPA employees share expertise on entry-level skills and curriculum design, and they mentor students throughout the year.
- **NYPA EV Workforce Development Program:** NYPA supports the next generation of automotive technicians by donating electric vehicles that have been retired from our fleet. Donation recipients are Boards of Cooperative Educational Services and Career and Technical Education institutions throughout New York State. NYPA has collaborated with 16 educational institutions to provide EVs, safety equipment, and Level II chargers. NYPA is developing curriculum to train automotive instructors on hybrid and EV technology, along with community engagement workshops led by our staff. The curriculum is focused on EV careers and addresses the environmental justice and health burdens associated with transportation emissions.
- **NYCHA Clean Energy Academy:** NYPA has committed funding of $75,000 per year to support the **NYCHA Clean Energy Academy,** a two-year scalable program that trains New York City public housing residents in clean energy careers. Funding supports curriculum development and educational bridge training for NYCHA residents who do not have the minimum qualifications to access the academy.
- **Transmission Siting Economic Development Federal Grant:** NYPA was recently selected to receive a U.S. Department of Energy Transmission Siting and Economic Development grant. NYPA will use the grant to implement the Propel NY Energy Sustainable Communities Initiative, which will make funding available to disadvantaged communities adjacent to the Propel NY transmission project. The initiative will bring new resources to advance clean energy projects and workforce development. NYPA will work with local schools, housing authorities, and community service agencies to develop clean energy education and job opportunities for residents in disadvantaged communities. The total investment includes up to $43 million of federal funding and $3 million in matching funds from NYPA.

3 NYPA RENEWABLES: OUR INAUGURAL PLAN

3.1 Progress to Date



3.1.1 Staffing

To support our wide range of responsibilities, NYPA and Canals operate on a shared service model, where subject matter experts are supported by existing in-house resources, including Legal, Procurement, Finance, and Project Delivery. This model allowed NYPA to quickly create the NYPA Renewables function.

3.1.2 Stakeholder Engagement

This Strategic Plan has been and will continue to be informed by significant stakeholder engagement. NYPA is committed to transparency and ease of access in stakeholder engagement processes.

In addition to the public engagement process required for the NYPA Renewables Strategic Plan, NYPA is required by statute to engage in an annual conferral with stakeholders to seek their perspectives on various matters, including New York State's advancements towards achieving the renewable energy objectives outlined in the CLCPA.

In November 2023, NYPA published its first Conferral Report (Appendix D). The report was the culmination of our inaugural conferral process in which we gathered feedback from more than 50 stakeholder groups, including state agencies and authorities, regulatory entities, climate and resiliency experts, labor organizations, and environmental justice and community organizations.[2]

NYPA's second conferral process concluded in September 2024 with the publication of the 2024 Conferral Report concurrent with the NYPA Renewables Strategic Plan draft on October 8, 2024 (Appendix E). In response to feedback regarding increased transparency and accessibility for the conferral process, the second conferral process, and all subsequent conferrals, allowed for the following:

- Conferral written comments are published in their entirety on NYPA's website.

2 Please note that NYPA's formal annual conferral interviews will take place from June to September of each calendar year, while written comments can be received at any time. Conferral Reports will be published in October of each year and will incorporate any feedback received between September 1 of the prior year through August 31 of the year of the report. Insights for the 2025 Strategic Plan are taken from the 2023 and 2024 Conferral Reports.

- Public comments can be received at any time and submitted by anyone through NYPA's website or via email to NYPARenewablesConferral@nypa.gov.
- Stakeholders that received direct outreach from NYPA to request public comment were offered an option for submitting written comments in lieu of or in addition to a virtual interview with staff.

Insights from the 2023 and 2024 conferral processes are summarized in Section 4.4.1 and published in their entirety in Appendices D and E respectively.

In addition to the annual conferral process, the final version of the 2025 NYPA Renewables Strategic Plan will be enhanced by upcoming public comments and hearings. As called for by NYPA's expanded authority, public comments on this draft plan will be accepted for at least 60 days. Comments can be submitted to: NYPARenewablesConferral@nypa.gov. While the expanded authority calls for three public hearings in diverse parts of the State, we are adding to our open forums and will hold the following public hearings:

Thursday, November 7th	10am-12pm, 6-8pm	Niagara Power Vista, Niagara
Thursday, November 14th	10am-12pm, 6-8pm	Holiday Inn Downtown, Binghamton
Monday, November 18th	10am-12pm, 6-8pm	Albany Capital Center, Albany
Wednesday, November 20th	10am-12pm, 6-8pm	John Jay College, NYC
Thursday, November 21st	10am-12pm, 6-8pm	Virtual Hearing
Monday, November 25th	1-3pm, 6-8pm	Suffolk Community College, Brentwood

To help gather additional public comments, NYPA is also seeking community input through NYSERDA's Regional Clean Energy Hubs program. NYSERDA created the Regional Clean Energy Hubs program to help New Yorkers navigate opportunities to access the benefits from the clean energy transition, including clean energy careers, home improvements, rebates for businesses, and personal transportation. NYSERDA has established 12 Regional Clean Energy Hubs, with a collective network of over 50 organizations. NYPA is working with NYSERDA to utilize these hubs to notify community members of the availability of the draft Strategic Plan in hopes of soliciting additional public input. Community members will be supplied with a link to the draft NYPA Renewables Strategic Plan and will be encouraged to submit comments to the designated NYPA email address and to participate in a public hearing. NYPA and NYSERDA will work together, where possible, to integrate the Regional Clean Energy Hubs in future opportunities and public outreach processes surrounding the expanded authority.

The Power Authority will consider and incorporate public comments and stakeholder feedback into the final Strategic Plan, which will be published on NYPA's website and submitted to the Governor and the Legislature by January 31, 2025.

3.1.3 Due Diligence

In support of maximizing the amount of renewable energy that NYPA could prudently own, our legal, finance, and taxation experts and outside counsel conducted comprehensive research on financial structures available to the Power Authority.

3.1.3.1 Formation of Subsidiaries

NYPA analyzed the benefits and drawbacks of undertaking projects with and without subsidiaries and incorporating subsidiaries under the New York Not-for-Profit Corporation Law or the New York Business Corporation Law. NYPA reviewed alternative project financing structures and methods to limit liability and risk to our existing essential functions, such as power generation and transmission, and researched subsidiary governance requirements. Based on this analysis, NYPA is advancing efforts to establish a wholly-owned subsidiary under the Business Corporation Law to bring in external capital more easily and to protect against project risk, both of which will increase the amount of renewable energy that the Power Authority can deploy.

3.1.3.2 Creation of a Local Development Corporation

NYPA and the Empire State Development Corporation (ESD), through the Job Development Authority (JDA), created a local development corporation (LDC) to act as a conduit issuer of bonds for energy and power projects. NYPA and/or its wholly-owned subsidiaries can utilize the LDC to issue taxable and tax-exempt bonds on behalf of renewable energy projects the Power Authority pursues, pledging the revenues and assets of these projects to secure financing.

3.1.4 Operational and Commercialization Model Analysis

In development of our operational and commercialization models, NYPA analyzed global best practices from utilities and private corporations with existing renewable energy arms. Details of our selected operational and commercialization models are summarized in Section 3.2.2 below.

3.1.5 Partner Identification and Vetting

As called for in its expanded authority, NYPA has diligently pursued "opportunities to work in partnership with private sector renewable energy developers to accelerate activity, catalyze greater scale, and spur additional market participation."[3] In January 2024, the Power Authority released a RFI to solicit targeted information from industry stakeholders, with a focus on renewable energy and energy storage developers. The RFI sought to understand which developers may be interested in collaborating with NYPA in various capacities. More than 170 entities expressed an interest in NYPA's renewable energy activities, and many entities indicated a willingness and desire to partner with NYPA. The information received further advanced NYPA's growing understanding of the renewable energy market in New York.

In the spring of 2024, NYPA issued a Request for Qualifications (RFQ) seeking information from renewable energy and energy storage developers and investors that outlines their experience and qualifications. To date, NYPA has pre-qualified 84 renewable energy and energy storage developers and investors. Through these efforts, NYPA is building a stable of qualified developers and investors to engage and

3 [PAL § 1005(27-a)(e)(ii)(H)]

enhance our ability to mobilize projects quickly and efficiently. These efforts have also contributed to NYPA's first group of potential projects, as detailed in Section 5.

3.1.6 Project Identification and Initial Due Diligence

To maximize the amount of renewable energy deployed in New York State and accelerate its implementation, we have examined projects across the project development continuum to identify opportunities in which NYPA can support active but struggling projects, initial-stage projects in site acquisition, and ones in between. Below are examples of projects NYPA has been evaluating for renewable energy and energy storage potential.

3.1.6.1 Investigating "At-Risk" Projects

Through the RFQ, NYPA has interacted with private sector developers that have projects that are uncertain or unlikely to move forward. We can work with developers to explore whether any of the advantages brought by a partnership with NYPA or joint ownership could bring an "at-risk" project to completion.

3.1.6.2 Working to Evaluate Publicly Owned Land and Serving Publicly Owned Facilities

NYPA is exploring opportunities to utilize publicly owned land for renewable energy generation projects and to serve public facilities with the offtake from renewable generation. NYPA has opportunities to develop renewable generation on land inaccessible to the private sector because ownership must remain with New York State, or because the land is difficult to navigate due to other risks and challenges. In furtherance of the expanded authority's call for NYPA to "serve publicly owned facilities," NYPA is exploring agreements with public facility owners to purchase the renewable energy offtake generated by new renewable generators.[4] Our efforts align with Governor Kathy Hochul's Executive Order No. 22, which calls for 100% of the electricity used by state agencies to come from renewable energy systems that meet the requirements of the PSC's Clean Energy Standard.

3.1.6.3 Large Scale and Distributed Generation

NYPA's inaugural strategic plan largely focuses on acquisition and development of large-scale (above 5 MW) solar generation projects. We are also exploring the deployment of smaller distributed generation (less than 5 MW of capacity) that would directly contribute to the state's 10 GW by 2030 distributed solar goal and qualify for NY-SUN incentives and the Value of Distributed Energy Resources (VDER) value stack.

3.1.6.4 Community Solar in Disadvantaged Communities

With support from our Community Affairs and EJ teams, NYPA Renewables has been working with stakeholders, particularly in disadvantaged communities, to explore opportunities to deploy community solar that directly benefits these communities with clean, local electricity generation and/or bill credits. Consistent with NYPA's commitment to community-based engagement and programming in historically disadvantaged communities, NYPA plans to assist disadvantaged communities with smaller solar "community gardens" in which they have direct involvement and potentially an ownership stake, to supply renewable energy to community residents. NYPA welcomes suggestions for potential sites for these projects.

[4] [PAL § 1005(27-a)(e)(iii)(B)]

3.2 Considerations Underlying NYPA's Renewable Energy Strategy

In June 2023, immediately following the 2023-2024 Enacted State Budget that authorized NYPA to build new renewable energy generation projects, we began taking steps to define our renewables strategy, including analysis of the challenges that exist globally and locally in renewable energy deployment and lessons learned from existing market participants. That analysis, along with a review of NYPA's advantages, limitations, and financial capacity, informed NYPA Renewables' mission statement, operating, and commercial models.

The following sections summarize NYPA's analysis of our competitive position, operational, and commercialization options, financial considerations, and potential options to bolster our ability to build renewables.

NYPA Renewables

NYPA is dedicated to maximizing our deployment of renewable energy, striving to balance our commitment to affordable energy, our communities, and utilizing fair labor practices to advance a clean and sustainable future for all New Yorkers.

3.2.1 NYPA's Competitive Position

To determine how NYPA should enter a mature and well-capitalized market to accelerate renewable deployment while limiting the cost to New Yorkers, we analyzed our competitive advantages and challenges.

3.2.1.1 NYPA Financial Competitiveness

NYPA maintains a meaningful financial advantage in developing renewables because of our high credit ratings and tax-exempt status, but the functional implications are often complex. NYPA's strong credit ratings require the maintenance of critical financial ratios, such as debt service coverage, debt to equity, and days of cash on hand.

NYPA's building and owning a significant amount of renewable energy infrastructure will require significant capital investment and borrowing. Accordingly, NYPA will need to approach the capital markets with increased debt issuances to finance this work, which, unless carefully managed, will put downward pressure on credit metrics, credit quality and ultimately, credit ratings. NYPA needs to ensure it achieves returns that fairly compensate the Power Authority for its investment to prevent credit erosion and maintain access to low-cost financing. If NYPA's credit were to erode, this would increase financing costs and impact the amount NYPA can invest in its renewable energy portfolio. Further, some financial advantages, such as tax-exempt financing, result in disadvantages in other places, such as a reduction in federal direct pay tax credit benefits. Below is a summary of the factors affecting NYPA's financial competitiveness.

3.2.1.1.1 Majority Ownership Requirement

One of the key provisions of NYPA's enabling statute is the requirement for us to maintain majority ownership of projects. Unlike other developers that may develop

projects and then sell some or all of their interest in the assets, sometimes referred to as “selling down,” the statute limits NYPA’s ability to do so.

The “sell down” strategy is used to recycle invested capital to provide funds for continued investment in renewable project development. This strategy is often used to recover capital from larger projects that require significant equity commitment. This is where NYPA sees the majority ownership requirement being most limiting. Selling down at opportunistic points in a project’s lifespan would better position NYPA to diversify project holdings to reduce concentration risk and exposure to projects, recapitalize itself, and redeploy the recovered capital.

Given NYPA’s financial capacity, building large projects with significant capital contributions limits our ability to diversify the renewable generating portfolio, creating concentration risk in a small number of projects. Although NYPA will engineer and design projects to the highest standards, there are some circumstances that cannot be derisked, such as a *force majeure* event. Diversifying and investing in an increased number of projects reduces exposure to these types of events.

Third-party partnerships will be critical to enabling the Power Authority to pursue additional projects, and other tools discussed in this Strategic Plan could further enhance the Power Authority’s ability to build.

3.2.1.1.2 Bonding Capacity

NYPA’s debt instruments provide a safe investment for our investors due to NYPA’s strong credit ratings and our focus on maintaining a strong balance sheet. As a result, NYPA can issue debt in the capital markets at lower interest rates. In 2011, NYPA’s Board of Trustees (a) recognized that maintaining an AA credit rating was critical in the capital-intensive electric power industry and necessary to maintain existing assets and invest in new energy-related infrastructure, and (b) adopted a policy to maintain such ratings as it considered various expenditures. While this policy limits our overall bonding capacity, it ensures we can continue to access the capital markets whenever necessary and at competitive interest rates.

3.2.1.1.3 Tax-Exempt Financing

NYPA is eligible for tax-exempt financing and plans to use it where allowable and appropriate. Tax-exempt bonds must comply with private use rules as dictated by the Internal Revenue Service (IRS), which will be based on the offtake structure of the projects.

The projects must be reviewed for meeting IRS criteria, including the “private use” test as described under Internal Revenue Code 141(b) to benefit from tax-exempt financing. NYPA has analyzed the commercialization and offtake structures with external counsel and is optimistic that most projects will qualify for at least a partial tax-exemption.

While tax-exempt debt has historically been significantly cheaper than taxable debt, especially for AA-rated debt, the spreads change over time. In reviewing the interest rate spreads for taxable and tax-exempt debt, projects or the portions of projects NYPA plans to own should benefit from using tax-exempt debt.

Nonetheless, tax-exempt financing is a complex financial instrument, with implications for the rest of the project's structure. A few of those nuances are described here. When tax-exempt debt is used, Direct Pay Tax Credits must be reduced up to 15%. NYPA, as a Direct Pay-eligible entity under the Inflation Reduction Act (IRA), cannot use tax-exempt debt for portions of projects it does not own under current IRS rules and guidance. Finally, private developers monetize the Modified Accelerated Cost Recovery System (MACRS) depreciation tax shields, and the use of tax-exempt debt, if allowed, would make this benefit unavailable, possibly increasing the Levelized Cost of Electricity (LCOE). As a result of these complexities, projects must be evaluated individually to determine the best ownership structure and financing strategy.

3.2.1.1.4 Tax Equity Financing

As an Applicable Entity as defined by the IRA, NYPA is eligible for "elective pay" (also referred to as "Direct Pay") and will receive a refundable tax credit from the federal government. This means it will receive a payment, not a credit, after filing a tax return. Therefore, there is no need to pass the tax credit on to an entity with a tax liability.[5] Unlike private developers, NYPA will not need to raise tax-equity financing. Since many private developers do not have the tax liability to fully monetize federal tax credits received for owning renewable energy generation projects, tax equity financing is used to pass these benefits on to an entity that can fully monetize the tax credits and accelerate depreciation tax shields.[6]

3.2.1.1.5 The Inflation Reduction Act and Direct Pay

Direct Pay is a monumental change for public power entities to own renewable energy projects and monetize tax credits that have been available to the private sector. Direct Pay has the theoretical ability to lower project costs to NYPA by 30% to 70%, depending on many factors and eligibility for bonus credits.

However, there are limitations to the cost reductions public power can provide as an alternative to private ownership. Importantly, using tax-exempt financing for a project receiving the Clean Electricity Investment Tax Credit (ITC) or Production Tax Credit (PTC) reduces the tax credit up to 15%. Therefore, the advantage of tax-exempt financing is at least partially offset by the reduction in tax credits. If the spread for taxable vs. tax-exempt debt is compressed, then the use of tax-exempt debt may lead to increased costs of ownership.

Additionally, because NYPA does not have a tax liability to offset, Direct Pay does not allow the monetization of MACRS depreciation tax shields, which private developers use to help reduce the overall LCOE for the project. This tax shield typically accounts for 10% to 15% of the value of a project. This loss of value, combined with the reduction in tax credits associated with tax-exempt debt, increases the cost of ownership for a public power entity.

Another challenge for a public power entity is the fact that IRS and Treasury rules only allow for the filing of Direct Pay once a year. This means NYPA may have to wait 18 months after the asset is placed in service to receive Direct Pay. Private developers can monetize this value on a quarterly basis by reducing their quarterly tax payments.

[5] IRS and Treasury guidance does not allow the transferability of direct pay and requires the credit to be determined with respect to the Applicable Entity, limiting the use of tax equity, even if it were practicable.

[6] Most renewable energy properties are assigned a 5-year useful life under modified accelerated cost recovery system (MACRS), allowing the recovery of investment over a short period of time, creating tax shields that improve project returns.

This timing difference can effectively reduce the value of the Direct Pay by 7% to 10% for NYPA and requires NYPA to maintain a higher equity commitment until the funds are received.

3.2.1.1.6 Subsidiaries and Special Purpose Vehicles

As described earlier, NYPA is establishing a subsidiary to allow us to bring in external capital more easily, as well as protect against project risk.

NYPA is exploring options for the financing of renewable energy projects with non-recourse project financing through special purpose vehicles to "ring-fence" the project debt from the organization, which is an appealing risk management option. Our capacity analysis was determined based on the assumption that NYPA would use this type of finance vehicle.

3.2.1.1.7 Federal Loans and Loan Guarantees

NYPA will regularly review and consider federal loans and loan guarantees for its projects. Based on historical analysis of interest rates, the federal Department of Energy's (DOE) Loan Program Office (LPO) may offer pathways to lower financing costs as it has a lower interest cost where NYPA is targeting a BAA-rated taxable debt issuance. However, because the average spread between the DOE LPO program and BAA taxable debt has been 1.6% since 2009, there would only be a marginal decrease in project ownership costs. For example, a 100 MW alternating current solar project with 55% debt would result in a 3% reduction in the LCOE.

3.2.1.1.8 Merchant versus Contracted Revenue

One of the elements of the NYPA Renewables Strategic Plan identified by the expanded authority is the ability to sell "the power, energy and ancillary services provided by planned renewable energy generating projects."[7] NYPA is a founding member, transmission provider, and generation provider in the wholesale electricity markets operated by the NYISO under tariffs approved by the Federal Energy Regulatory Commission (FERC). For utility-scale projects, NYPA will sell the electric capacity, energy, and ancillary service– such as system reserves– to the wholesale electricity markets operated by the NYISO. As with the rest of its generation fleet, NYPA will bid the output of its new renewable generation to maximize revenues. Even after maximizing its revenue potential in the NYISO markets, a renewable energy project in New York cannot cover its costs by exclusively relying on merchant revenue because of the difference between expected market revenues and lifecycle project costs of ownership.

Based on modeling of merchant revenue streams (energy, capacity, and ancillary services), projects can expect to make less than $50/megawatt hour (MWh) on an annual basis for the foreseeable future. Based on NYPA's market intelligence, the levelized cost of energy (LCOE) for new solar has increased to at least $100/MWh. Therefore, new renewable energy markets cannot cover their costs just selling into the NYISO market alone.

To make up the difference, project developers look for "contracted revenue." This largely falls into two categories: selling the environmental attributes of the project (the Renewable Energy Certificates [RECs]) to NYSERDA through a competitive

[7] [PAL § 1005(27-a)(e)(ii)(G)]

solicitation or selling all attributes (energy, capacity, and RECs) to an energy user through a contract using an all-in "bundled" rate. There are also alternatives to separate RECs from the energy and capacity components.

Through our expanded authority, NYPA may sell Tier 1 RECs to NYSERDA, including through bidding into NYSERDA's competitive solicitations for Tier 1 RECs. The NYSERDA Tier 1 Indexed REC is a form of contracted revenue that will help NYPA achieve the necessary financing and returns to bring about a larger buildout of renewables.

An Index REC acts like a contracted revenue stream whereby NYPA will receive the strike price from a NYSERDA solicitation, regardless of merchant pricing. If NYPA bids a strike price of $90/MWh and earns $50/MWh from the market, NYSERDA will pay NYPA the strike price less monthly average zonal energy and capacity prices. This type of structure can help NYPA achieve project financing leverage of 50% to 60%, which helps our equity go further.

Additionally, our strong relationships with customers offer an opportunity to contract with them for the energy benefits and potential environmental benefits. We are talking with two of our largest customers, the Port Authority of New York and New Jersey and the New York State Office of General Services (OGS), about opportunities to contract with NYPA Renewables.

3.2.1.2 NYPA Siting and Permitting Expertise

While NYPA is subject to the same siting and permitting processes as any other developer, our expertise in the regulatory landscape in New York State and at federal agencies is a competitive advantage in moving projects forward efficiently. NYPA has participated in planning New York's energy system, including rebuilding our transmission system and adding transmission to the power system through the transmission planning and competitive selection processes conducted by the NYISO under tariffs approved by the Federal Energy Regulatory Commission (FERC).

NYPA has also worked extensively on PSC transmission siting proceedings, and we have extensive expertise in hydroelectric licensing, other generation siting and permitting, and generation interconnection to our facilities. With the advent of the Renewable Action Through Project Interconnection and Deployment Act (RAPID) signed by Governor Kathy Hochul this year, NYPA will leverage its deep knowledge of transmission, generation, and interconnection to site, build, and interconnect new renewable generation.

3.2.1.3 NYPA Reputational and Relationship Strength

NYPA prides itself on being a good neighbor and trusted advisor, forging strong relationships with the communities we serve. Our deep-rooted commitment to sustainability and economic development has positioned us as a reliable partner, helping to shape a brighter future for New York State. We do this in many ways, including support of local initiatives, enhancing grid reliability and advising on energy efficiency.

3.2.1.4 NYPA's Existing Customer Base

As described previously, NYPA is exploring opportunities to enter into agreements with our customers to be the beneficiaries of NYPA Renewables. Such mutually beneficial

arrangements would provide customers a fixed and predictable cost of achieving their CLCPA goals and Executive Order 22 requirements (as relevant). For NYPA, signing a contract with a customer to buy the "offtake" of the project (energy, capacity, RECs) provides a stable revenue stream and predictable cash flow that makes lenders much more willing to increase project leverage. Moreover, a project is likely to be eligible for tax-exempt financing if the customer is a governmental entity.

3.2.1.5 Potential for Ratepayer Benefit

NYPA is committed to developing projects responsibly, with respect for the communities in which our projects will be located and paying fair wages through union labor and project labor agreements. We are also committed to advancing projects with the strongest financial returns, because that allows us to decrease costs to the ratepayer through lower bids into NYSERDA solicitations and to maximize the amount of money we can allocate to the REACH program, which will help lower electricity bills for low-income ratepayers in disadvantaged communities.

We are mindful that NYPA's expanded authority calls for renewable energy projects to "actively benefit disadvantaged communities."[8] In January 2024, NYPA petitioned the PSC to establish the REACH program. In June 2024, after public comments on the petition were filed, NYPA submitted additional reply comments in support of a regulatory model that will build on the PSC's Energy Affordability program and the Statewide Solar for All program to provide bill credits to low-income ratepayers in disadvantaged communities. NYPA is hopeful that the PSC will deliberate on NYPA's REACH petition in the near future.

One of our tools to lower costs to ratepayers is NYPA's exemption from paying real estate taxes, which could have a tax revenue impact on host communities. The Power Authority is committed to exploring opportunities to make our host communities an active part of the transition to clean energy. This includes working with local communities in which NYPA will operate a utility-scale system to find sites where distributed-scale projects could be built for critical infrastructure, like a school or emergency center.

NYPA will also explore ways to minimize potential negative tax revenue impacts on municipalities that host renewable energy projects, including Payment in Lieu of Taxes (PILOT) and/or host community benefit agreements, where appropriate, on a case-by-case basis. As an entity dedicated solely to developing renewables to serve the public interest, we will balance the needs of host communities with the need to fund bill credits for low-income ratepayers in disadvantaged communities through the REACH program.

3.2.2 Operating and Commercialization Options

3.2.2.1 Operating Model Options

NYPA evaluated potential operating models, primarily differentiated by the time in the development process when we would become involved. A summary of those models is below.

[8] [PAL § 1005(27-a)(e)(iii)(A)]

Under a **Build-Transfer Agreement**, NYPA would purchase an in-development renewable energy generating project from its owner at a mutually agreeable milestone, such as the commercial operation date. The percentage of ownership in the underlying project that is transferred from the owner to NYPA may vary between 51% and 100%.

In a **Co-Development** scenario, NYPA would jointly develop, construct, own and operate a project in partnership with a developer. NYPA would acquire a majority stake in the development company and work collaboratively with its developer partner through lifecycle of a project, securing permits, supporting interconnection, contracting for or directly contributing in-kind engineering, equipment procurement, construction, operations, and maintenance services. Under this scenario, NYPA would acquire its majority stake prior to the project's commercial operation date.

In addition to joining in-progress project development efforts, NYPA will also initiate its own projects, via **NYPA Self-Development**, that could be completed solely by NYPA or in collaboration with one or more partners.

Other options may include Purchase and Sale Agreements (PSA) and Membership Interest Purchase Agreements (MIPA). Both agreements would result in NYPA acquiring projects by purchasing the assets (PSA) or taking an ownership interest in a partnership (MIPA). Under these arrangements, NYPA would enter late in the development process, but may provide a competitive cost of capital and expertise to bring the projects to completion.

NYPA will retain flexibility within each operating model to define our specific role based on the specific project needs and partnership structure.

3.2.2.2 Commercialization Models

As mentioned previously, NYPA cannot rely solely on merchant revenues in the wholesale electricity markets operated by the NYISO to earn a return that can lead to a large buildout of renewables. Therefore, NYPA must seek contracted revenues to ensure a viable portfolio is built.

NYPA broadly has two ways to contract revenue for its projects:

- NYPA can bid into and be awarded a NYSERDA Tier 1 Index REC to help it cover costs not covered in the NYISO wholesale markets.
- As described above, NYPA may also seek to enter into Power Purchase Agreements (PPA) with customers to provide their energy and REC needs. Customers would receive the energy, capacity and environmental attributes from the project, and NYPA would receive an "all-in" bundled rate from the customer.

There are ways to mix and match these approaches. For instance, NYPA may be able to sell the energy and capacity to a customer and sell the RECs under an awarded NYSERDA Tier 1 award. This approach locks in the NYSERDA Tier 1 REC price and provides the customer with fixed price energy and capacity needs.

For smaller projects (less than 5 MW), NYPA may utilize the PSC adopted Value for Distributed Energy Resources (VDER) compensation mechanism to commercialize such projects. NYPA has the option to utilize PPAs with customers for behind-the-meter projects that do not participate in the VDER stack. There are situations where

interconnection or other siting issues may make the PPA option superior to the VDER mechanism.

NYPA, as a municipal power provider, can utilize electric prepay arrangements to facilitate renewable energy project development. An electric prepay arrangement is allowed under IRS regulations and utilizes tax-exempt financing to deliver savings to customers for pre-funding electricity to serve customer load. These savings can range anywhere from 8% to 12% for customers and are determined at the time of execution based on the taxable versus tax-exempt interest rate spreads at close. In eligible circumstances, NYPA plans to utilize this tool to enable a larger renewable buildout and to ensure a cost-effective transition to renewables for its customers.

In addition to project-specific commercialization options, NYPA has an option to make combined offerings to eligible customers; for example, pairing new renewable generation with energy services to decrease their demand. Additionally, we can structure our investment in projects on a portfolio level, bundling projects with different developers to analyze the financial returns of the projects in aggregate, which may allow for projects on the margins to move forward when they otherwise would not have.

3.2.3 Maximizing NYPA's Ability to Build New Renewable Generation Resources

NYPA has not received a State appropriation to build new renewable generation resources. To maximize its ability to build new renewable generation projects under its expanded authority, NYPA has undertaken or is pursuing the following:

3.2.3.1 NYPA Enabled

Building on NYPA's successful Distributed Energy Resources Advisory Services model, NYPA is looking to use the climate commitments and purchasing power of our governmental customers to enable significant amounts of renewable energy through contracted revenue streams between developers and public customers. This model, which would be in addition to our renewable development work, can provide revenue certainty and scale to developers, which should in turn result in lower prices for renewable energy for contracted customers.

3.2.3.2 Increased NYPA Financial Capacity

As the primary limitation on the Power Authority's ability to deploy renewable generation is limited capital, NYPA is exploring ways to add to our financial capacity for the express purpose of building more new renewable generation resources.

3.2.3.3 De-risked NYPA Projects

Also shared in our comments on the draft CES Biennial Review, NYPA has requested the ability to negotiate directly with NYSERDA to sell Tier 1 RECs for NYPA Renewables. This would facilitate faster deployment of renewable energy and substantially derisk a project and lower the acquisition costs. Both of those would translate to a lower priced project.

4 CONDITIONS UNDERLYING THE 2025 NYPA RENEWABLES STRATEGIC PLAN

4.1 Current Renewable Development Landscape

A key consideration in formulating the NYPA Renewables Strategic Plan is the "feasibility of projects, based on costs, potential benefits, and other relevant considerations."[9] The following section details NYPA's analysis of the current state of the renewable market.

4.1.1 Market data

Global investment in energy transition technologies reached a record high of $1.77 trillion in 2023, with renewable energy projects receiving $623 billion, less than 50% of the total investments.[10] Solar energy was the main driver of this growth, with $393 billion invested and total solar installations estimated at 414 GW. Investment in energy transition technologies exceeded investment in fossil fuel supply by $671 billion in 2023.[11]

Overall, global energy transition investment in 2023 is 17% higher than 2022 indicating strong recovery from the effects of the Ukraine war, rapid inflation, lack of clarity on solar panel tariffs, and supply chain constraints.

Interconnection and grid equipment, such as transformers and devices used to support power system voltage, continue to face market shortages, with extended lead times and price increases that negatively impact the speed and cost of renewable projects coming online.

Looking domestically, the US is experiencing substantial growth in solar installations, with an estimated 43 GW of solar capacity expected to be installed in 2024. In the Northeastern US, covered by the NYISO and the Independent System Operator - New England (ISO-NE), over 27 GW DC of utility-scale solar capacity and 14 GW of rooftop solar are expected to be added between 2024 and 2035. In addition to solar, over 18 GW of offshore wind installations and 13 GW/ 51 GWh of energy storage are also expected between 2024 and 2035, according to BNEF data.

The IRA has significantly catalyzed renewables investment by introducing new subsidies. Private tax credit sales are estimated to have reached between $4 and $9 billion in the second half of 2023. However, key provisions of the clean energy tax credits, such as the technology-neutral 45Y clean energy PTC, 48E clean energy investment credit, and domestic content bonus rules were only issued in May 2024. Solar module prices in the US remain high compared to other regions. Domestic steel prices remain the highest in the world due to trade measures and domestic preference laws.

[9] [PAL § 1005(27-a)(e)(ii)(C)]

[10] BNEF Energy Transition Investment Trends 2024 (p. 24)

[11] BNEF Energy Transition Investment Trends 2024 (p. 18)

Further, while the IRA bonuses privately-owned renewable systems that meet domestic content provisions, publicly owned projects like NYPA's can be penalized in an "all or nothing" approach to the tax credits. While a private sector project that does not meet domestic content forfeits a 10% Investment Tax Credit (ITC) adder, a publicly-owned project that does not meet domestic content provisions will not be eligible for any ITC tax credit—a financial impact of up to 40% of the project cost.

4.1.2 High-needs Areas

In formulating the NYPA Renewables Strategic Plan, our expanded authority calls upon the Power Authority to consider "high need areas where transmission and distribution upgrades will be necessary to interconnect new renewable energy generation projects." As described below, NYPA will participate in and consider the developments from the PSC on Renewable Energy Zones (1), the Comprehensive Grid Planning Process (2), and the NYISO System and Resource Outlook (3).

4.1.2.1 Renewable Energy Zones

In 2020, New York State enacted the Accelerated Renewable Energy Growth and Community Benefit Act, which directed the PSC to develop and implement plans for future investments in New York's electric grid to meet the Climate Act goals.
In January 2021, NYSERDA filed its initial report on the Power Grid Study for the PSC's consideration that included a study on local transmission and distribution upgrades needed to meet the Climate Act goals, a study of offshore and onshore bulk power transmission infrastructure scenarios, and studies of transmission, generation and storage options for achieving 70% renewable generation by 2030 and a zero-emissions grid by 2040.[1] The Power Grid Study recommended that the PSC consider establishing local Renewable Energy Zones (REZ) where significant renewable generation potential appeared to exist in geographic areas that did not have access to sufficient transmission infrastructure, and where new transmission development could facilitate renewable generation development in those areas.

Although the PSC did not adopt the recommendation to create a REZ process in its 2022 Order, it acknowledged that the REZ concept may have value in the future. Most recently, in the Draft CES Biennial Review, DPS and NYSERDA identified the REZ as an option to offer cost efficiency and certainty of meeting milestones to align generation development and large loads elated to economic development growth with transmission expansion plans.

The draft Biennial Review finds that REZ could build upon other efforts, such as New York State's Coordinated Grid Planning Process (CGPP), ongoing economic development initiatives, and several other power sector initiatives that aim at speeding the buildout of transmission and clean generation resources. NYPA filed comments on the draft CES Biennial Review supporting the REZ concept, and we will consider the PSC's determination and the delineation of any future REZ in our future biennial strategic plans and updates.

4.1.2.2 Coordinated Grid Planning Process

In August 2023, the PSC approved the CGPP, which focuses on identifying the transmission and distribution system investments needed to meet the Climate Act goals. The CGPP, in close coordination with the utilities, NYISO and other stakeholders, involves data collection and scenario development, network model

development, local transmission and distribution system assessment, and planning and evaluation of preferred and least-cost solutions.

The CGPP timelines will also be coordinated with the NYISO's input and bulk transmission planning processes. NYPA is participating in the CGPP and other distribution and bulk planning efforts. The Authority is considering information from the CGPP to inform the development decisions in this draft Strategic Plan.

4.1.2.3 NYISO System and Resource Outlook

The NYISO is studying transmission system planning to relieve congestion and allow renewable energy to be deliverable to load centers. In July 2024, the NYISO issued its 2023-2042 System & Resource Outlook Report, which provided a comprehensive overview of potential resource development over the next 20 years and highlighted opportunities for transmission investment driven by economics and public policy in New York State. The report found that continued investment in the bulk electric grid will be required to accommodate the NYISO's estimated 100 GW to 130 GW of emission-free generation resources needed to accomplish New York State policy mandates.

The NYISO report examined and identified regions of the state where renewable or other resources may be unable to generate at their full capability due to transmission constraints. In implementing our expanded authority, NYPA is conferring with the NYISO regarding the development and interconnection of new renewable energy generation projects. NYPA plans to consult the NYISO to understand and consider the impacts of bulk transmission congestion to assess the risk of renewable energy generation project curtailment.

5 Project Interconnection and New York State's Progress Toward Achieving the Climate Act's Renewable Energy Targets

As a component of our annual conferral process and the NYPA Renewables Strategic Plan, NYPA is required to complete an analysis of New York State's progress toward achieving CLCPA goals. NYPA's summary of current analysis is provided in Appendix E- 2024 Conferral Report.

5.1.1 Impact of NYISO Interconnection Process and Timing of Projects in the NYISO Interconnection Queue.

NYPA participates in the interconnection and transmission planning processes at the NYISO. In formulating its NYPA Renewables Strategic Plan, our expanded authority calls for NYPA to consider "the timing, characteristics and size of the renewable energy generating projects in the interconnection queue of the federally designated electric bulk system operator for New York state."[12] The interconnection of large-scale renewables projects is supervised by the NYISO under federal tariffs approved by FERC. The NYISO has started a new interconnection process under FERC's interconnection reform Order No. 2023, effective May 2, 2024. A complete analysis of

[12] [PAL Section 1005(27-a)(e)(ii)(E)]

the NYISO's interconnection processes and impacts on development of renewable generation is set forth in Appendix C.

The universe of eligible projects in the NYISO interconnection queue includes projects that are participating in the Class Year 2023 process, projects that are or will apply for the Transitional Cluster Study Process, and projects that will participate in the future Cluster Study process. Seventy projects representing various technologies and sizes are participating in the Class Year 2023 process. In September 2024, the NYISO issued the "Class Year 2023 Facilities Study System Upgrade Facilities (SUF) and System Deliverability Upgrade (SDU) Report", which identified and allocated costs to reliably interconnect these projects. On Sept. 26, 2024, the report was approved by the NYISO's Operating Committee (OC).

The OC approval initiates the decision process for the project developers to accept or reject their interconnection costs. Upon rejecting the cost allocation, certain projects may be removed from the Class Year Study. The developers' acceptance or rejection of the costs will require the NYISO to re-evaluate the SUFs and SDUs for the remaining projects and issue a revised report. This process will continue until all the remaining projects have accepted the interconnection cost allocation. The NYISO anticipates completion of this iterative process and additional system deliverability upgrade cost settlements by February 2025.

On August 1, 2024, the NYISO initiated its new Transition Cluster Study. The application window is scheduled to close on October 15, 2024. The Transition Cluster Study process is expected to expedite the interconnection process without requiring the participating project to undergo certain prerequisite studies required under the Class Year process. The Transition Cluster Study is anticipated to be completed for all the participating projects by the end of July 2026.

Upon completion of the transition cluster, the next Cluster Study is anticipated to begin in September 2026. According to the NYISO, the new interconnection process is expected to be faster than the 3 to 4 years that the prior Class Year process took, with completion in approximately 590 days, or about 1.6 years.

NYPA will account for these NYISO interconnection processes and expected completion dates, and for how interconnection will affect the timeframe for completing our projects and entering them into commercial operation.

5.1.2 Contribution of Projects to Achieving the Renewable Energy Targets of the Climate Act

In formulating its strategic plan, NYPA's expanded authority calls on the Power Authority to consider "the state's progress towards achieving the renewable energy goals of the climate leadership and community protection act" - PAL § 1005(27-a)(e)(iv)(J). Appendix B provides a detailed discussion of the draft Clean Energy Standard Biennial Review and the status of New York State's achievement of the Climate Act goals. When completed, the large scale solar and other renewable energy generation projects set forth in this draft Strategic Plan will contribute significantly to New York's achievement of its Climate Act renewable energy targets.

5.1.3 Anticipated Delays in Completing Renewable Energy Generation Projects

One of the considerations in NYPA's expanded authority is "a description of any delays or anticipated delays associated with completion of the renewable energy generating projects." [PAL § 1005(27-a)(e)(iv)(E)]. NYPA factored potential of risks to project completion and risks of projects delays into its selection of renewable energy generation projects to include in this draft Strategic Plan.

NYPA is taking a proactive approach in identifying issues that could potentially delay project execution including supply chain concerns for critical equipment, interconnection and the status of necessary permits as part of its project due diligence process.

The Power Authority will consider strategies to mitigate or minimize such delays to the extent possible in accordance with NYPA's applicable enterprise project risk management standards. NYPA will continue to monitor any unforeseen issues that may arise that could further exacerbate such delays.

As needed, NYPA will account for delays in projects that we have identified for inclusion in the Strategic Plan, in the biennial plan updates and subsequent biennial plans.

5.2 Fiscal Condition of the Power Authority

NYPA's financial strength and fiscal prudence is essential to maintaining New York State's generation and transmission assets, along with our commitments to our customers and bondholders. The Power Authority's fiscal condition was most recently validated by credit agencies in September 2024, when Moody's Ratings and the Kroll Bond Rating Agency upgraded their ratings on NYPA's revenue bonds and our transmission bonds affiliated with separately financed projects.

The rating agencies noted NYPA's strong operating performance and proactive financial management practices, including balance sheet deleveraging, which have facilitated consistently robust liquidity and General Resolution Revenue Bond debt and fixed charge coverage metrics. The rating agencies highlighted NYPA's competitive, low-cost, low-carbon generation mix, growing transmission asset base, and management's broad enterprise expertise.

Following two strategic legal defeasances of General Resolution Taxable Bonds in December 2023 and May 2024 totaling $348 million, ample capacity exists for NYPA's expansive, $3.1 billion 2024-2027 capital program. Funding sources are expected to include amounts on hand, internally generated funds and additional borrowings. Of this $3.1 billion plan, NYPA anticipates approximately $1.1 billion in transmission capital investment through 2027, in addition to the $1.7 billion previously expended, a portion of which is or will be financed as Separately Financed Projects (SFPs).

NYPA's upcoming investment in new renewable energy is separate from the $3.1 billion capital program. The first $100 million of renewables funding will be brought to the NYPA Board of Trustees for approval on October 8, 2024.

5.3 Stakeholder Engagement

As described in detail in Section 3.1.2, the Power Authority has and will consider stakeholder feedback through two formal methods of the annual conferral process and public comments received through the public comment period and public hearings associated with the drafting of this Strategic Plan.

Stakeholders in the 2023 and 2024 conferral processes included climate and resiliency experts, labor organizations, environmental justice communities, disadvantaged community members, residential and small business ratepayer advocates, and community organizations.

Every effort was made to allow for accessibility and transparency during the stakeholder engagement processes. Comments were encouraged by any stakeholder via email or at our website for the Conferral Report and the public comment period associated with the NYPA Renewables Strategic Plan. All written conferral comments considered in the 2024 Conferral Report were published alongside the report. Additionally, public hearings associated with this Strategic Plan will be transcribed.

As described in Section 3.1.2, this draft of our inaugural strategic plan will be posted on NYPA's website (nypa.gov) for at least 60 days for public comments. Public hearings will be held in regionally diverse parts of the state. NYPA will seek further input through the NYSERDA Clean Energy Hubs. The Power Authority will consider and incorporate public comments and stakeholder feedback into the final Strategic Plan, which will be published on NYPA's website and submitted to the Governor and the Legislature by January 31, 2025.

5.3.1 Plan Updates

Until 2035, NYPA will update each biennial strategic plan annually as needed, after a public comment period of at least 30 days and at least one public hearing. Each update will include a review of the implementation of projects previously included, including status in the interconnection queue. The NYPA Renewables Strategic Plan and any updates of the plan are not deemed final until they are approved by the NYPA Board of Trustees.

5.3.2 2023 and 2024 Conferral Insights

Participating stakeholders provided NYPA with valuable insights and perspectives throughout the 2024 conferral process, which continues to underscore the needs and opportunities for NYPA to help advance New York State's progress toward achieving the renewable energy goals of the Climate Act. In 2023 and 2024, NYPA gathered feedback from a variety of stakeholder groups, including state agencies and authorities, regulatory entities, climate and resiliency experts, labor organizations, and environmental justice and community organizations. In each Conferral Report, NYPA categorized and summarized stakeholder comments and feedback, and synthesized that feedback in the form of observations and conclusions.

A summary of stakeholder feedback and NYPA's observations and conclusions from the 2023 conferral process can be found in Appendix D.

A summary of stakeholder feedback and NYPA's observations and conclusions from the 2024 conferral process can be found in Appendix E.

Stakeholder feedback and NYPA's observations and conclusions from both conferral processes has helped inform the contents of the NYPA Renewables Strategic Plan in several key respects, including the following:

First, many conferral stakeholders were concerned with issues surrounding energy affordability, especially for low-income New Yorkers in disadvantaged communities. Recognizing this concern, NYPA, in cooperation with DPS and NYSERDA, has advanced the early programmatic groundwork to establish the REACH program, discussed in Section 2.2.2.

If approved by the PSC, REACH will help to address energy affordability for low-income New Yorkers in disadvantaged communities by providing electric utility bill credits. The bill credits will be funded from a portion of revenues from new renewable energy generation projects developed or contracted for by NYPA and designated for REACH, and other authorized contributions.

NYPA, in collaboration with NYSERDA and DPS, has adopted valuable public feedback to help craft the proposed program, which was designed to build upon existing efforts, such as the Energy Affordability Program and Statewide Solar for All. The conferral processes have underscored the importance of REACH in helping to address energy affordability by providing meaningful benefits to low-income electricity customers in disadvantaged communities as the State transitions to a clean energy economy. Through the new renewable energy generation projects set forth in Section 5, NYPA is prioritizing renewable energy generating projects that could contribute to REACH.

Second, many conferral stakeholders expressed a preference that NYPA's downstate small natural gas power plants (SNGPP, or referred to by some as "peaker" plants) should be transitioned away from fossil fuel generation. Although there is no clear consensus yet on what should be done with these sites after plant retirement, NYPA has observed increasing interest among conferral process stakeholders in battery energy storage being deployed at these locations where feasible.

Some stakeholders want to see certain these plants replaced with offshore wind interconnections, renewable energy generation, green space or waterfront access. NYPA is prioritizing renewable energy-generating projects that benefit communities served by SNGPPs, and we are in negotiations with respect to battery storage at three of these sites.

NYPA has also issued an RFI to solicit ideas for development of its Kent SNGPP site. NYPA will continue to solicit community views on the future of the SNGPP sites and we will publish the initial phase-out plan required by PAL § 1005(27-c) no later than May 3, 2025.

Third, some conferral stakeholders expressed concerns that NYPA's development of renewable energy would adversely affect the low-cost hydropower rates upon which many businesses and municipalities rely. As stated in the 2023 Conferral Report, NYPA's development of renewable energy does not necessitate risks being borne by existing customers, as suggested by some stakeholders.

Along this same line of concern, one of these conferral stakeholders suggested that NYPA "silo" the risks associated with renewable development to insulate NYPA from potentially adverse financial impacts. PAL § 1005(27-a)(f) authorizes NYPA to create wholly-owned subsidiaries for this purpose, a concept that NYPA is advancing, as discussed in Section 3.1.3.1.

The Power Authority will consider this information and additional stakeholder input as it moves forward with the development of its first NYPA Renewables Strategic Plan and implementation of other responsibilities assigned to us under our expanded authority.

5.3.3 NYPA Renewables Public Comment Period and Public Hearing Insights

To be added in the final report.

5.3.4 Request for Information Insights

In January 2024, NYPA issued an RFI to solicit more targeted information from industry stakeholders, with a focus on renewable energy and energy storage developers. The RFI sought to understand which developers may be interested in collaborating with NYPA in various capacities.

The RFI generated a robust response from more than 170 entities with an interest in NYPA's renewable energy activities. Numerous entities indicated a willingness and desire to partner with NYPA. The information received further advanced NYPA's growing understanding of the renewable energy market in New York State.

In the spring of 2024, building upon the progress of the RFI, NYPA issued an RFQ that sought information from renewable energy and energy storage developers and investors that outlines their experience and qualifications. NYPA evaluated respondents based upon their qualifications and experience and pre-qualified 84 developers and investors for potential collaborations that may arise in the future.

Through these efforts, NYPA is building a stable of qualified developers and investors to engage as projects are identified that can enhance our ability to bring such projects from concept to reality.

NYPA's value proposition is most exciting to developers who:

- Have complementary capabilities in development and delivery
- Are flexible about ownership models
- Have limited presence and relationships with stakeholders in New York State
- Want to quickly recycle capital
- Have limited access to capital at attractive terms
- See potential in long-term partnerships beyond solar PV
- Have a larger pipeline than they can develop alone.

6 2025 PROPOSED PROJECTS

The projects presented below are NYPA's first tranche of renewable projects.

As this inaugural NYPA Renewables Strategic Plan will be finalized in January 2025, roughly 18 months after NYPA was granted this expanded authority, the majority of the projects presented here are undergoing project due diligence. Through this process, the Authority is actively conducting thorough reviews of detailed technical data, project economics, ownership, real estate, community impact, and other considerations to inform negotiation of terms sheets and agreements for project development and acquisition.

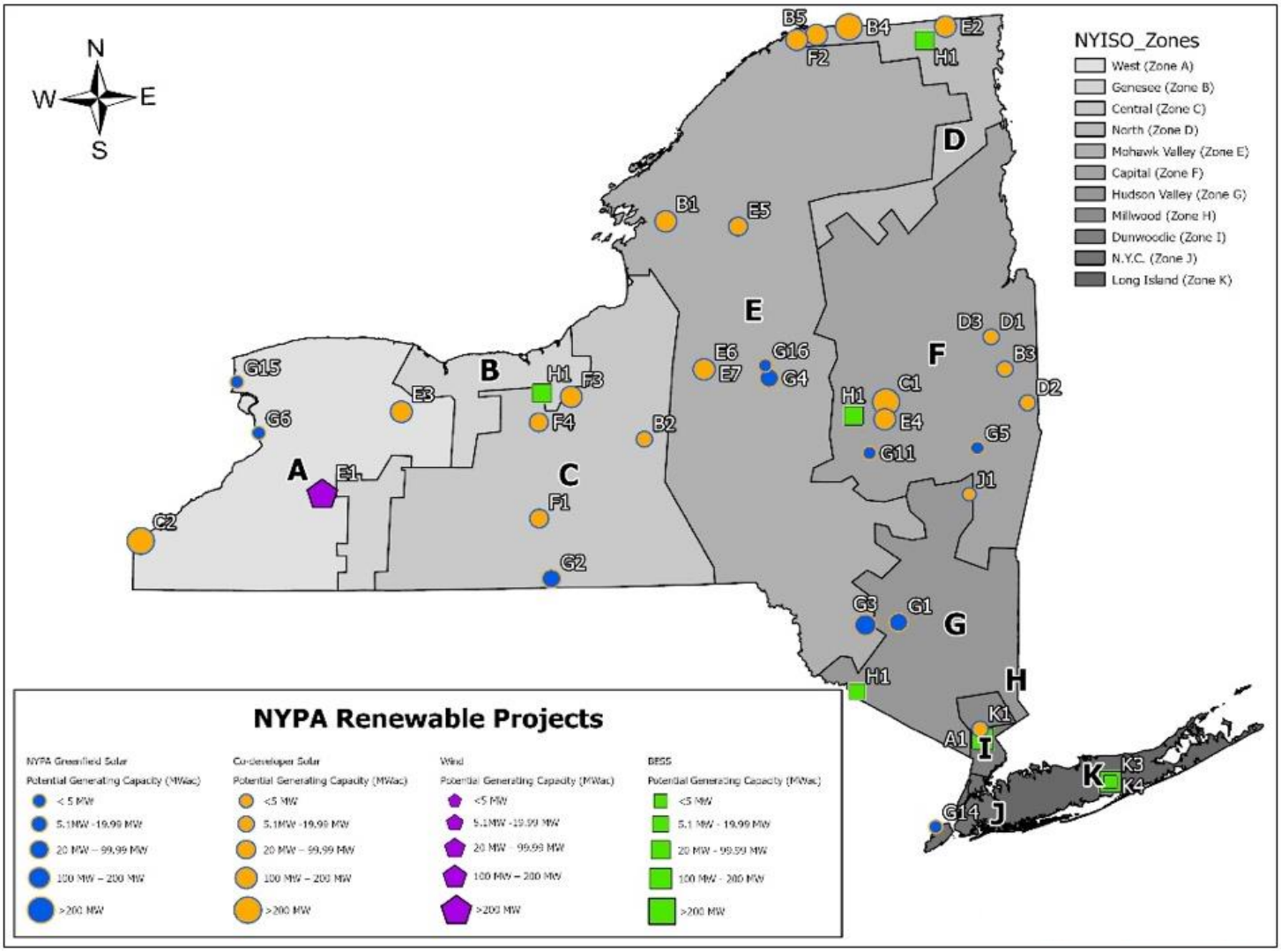
Without final agreements in place, costs of the projects listed in this draft Strategic Plan are not known and is "to be determined" at this time. See PAL § 1005(27-a)(e)(v)(F). Disclosure of preliminary estimates of project-specific cost information during sensitive negotiations could cause developers to refuse to continue working with the Power Authority, leading to the loss of these important projects, or result in unfavorable price terms in individual project negotiations, undermining NYPA's ability to conclude contracts and maximize revenues from new renewable generation resources to carry out the purposes of its expanded authority.

NYPA will provide estimated project cost information to the extent available upon execution of project acquisition or development contracts, in updates to its final biennial Strategic Plan or in future reports. See PAL § 1005(27-a)(j).

Further, NYPA cannot identify at this time which renewable energy generation projects will support REACH as NYPA's petition to establish REACH remains pending at the PSC. In addition to awaiting PSC action on NYPA's REACH petition, the Authority must also finalize contractual arrangements with partners and offtakers before determining REACH contributions for any specific project. Finally, although NYPA has provided information about how renewable projects in general will benefit New York State and its renewable energy goals, the Power Authority will furnish additional details about project-specific benefits, including benefits to disadvantaged communities, as they become available.

In aggregate, the initial portfolio below represents 40 projects, in every region of the State, with more than 3.5 GW of capacity, featuring solar PV, land-based wind, and battery energy storage systems. If operationalized it is entirety, this portfolio would generate billions of dollars of public and private capital in new renewable energy generation and storage projects within the state. Through the contract negotiation of projects moving forward, the Authority expects some level of attrition from this inaugural tranche of projects. At the same time, this is only the first tranche of NYPA Renewables projects. The Power Authority looks forward to building on the success of the 2025 NYPA Renewables Strategic Plan with further projects for consideration.

NYPA Project Map



Project Name:	Project A1
Project Type:	Battery Energy Storage System
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	H - MILLWD , I - DUNWOD
Potential Generating Capacity (MWac):	130
Purpose of Project:	• **Support CLCPA** • **Resource Adequacy/Reliability**
Estimated completion date	Q2 2028
Entity Undertaking the Project/Partnership Agreements	Acquest Development

Project Name:	Project B1
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	E - MHK VL
Potential Generating Capacity (MWac):	140
Purpose of Project:	Support CLCPA, Actively benefits DACs
Estimated completion date	Q2 2026
Entity Undertaking the Project/Partnership Agreements	Boralex

Project Name:	Project B2
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	C - CENTRL
Potential Generating Capacity (MWac):	20
Purpose of Project:	Support CLCPA
Estimated completion date	Q1 2026
Entity Undertaking the Project/Partnership Agreements	Boralex

Project Name:	Project B3
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	F - CAPITL
Potential Generating Capacity (MWac):	20
Purpose of Project:	Support CLCPA
Estimated completion date	Q1 2026
Entity Undertaking the Project/Partnership Agreements	Boralex

Project Name:	Project B4
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	D - NORTH
Potential Generating Capacity (MWac):	250
Purpose of Project:	Support CLCPA, Actively benefits DACs
Estimated completion date	Q1 2027
Entity Undertaking the Project/Partnership Agreements	Boralex

Project Name:	Project B5
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	D - NORTH
Potential Generating Capacity (MWac):	200
Purpose of Project:	Support CLCPA, Actively benefits DACs
Estimated completion date	Q2 2027
Entity Undertaking the Project/Partnership Agreements	Boralex

Project Name:	Project C1
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	E - MHK VL
Potential Generating Capacity (MWac):	250
Purpose of Project:	Support CLCPA, Actively benefits DACs
Estimated completion date	Q4 2025
Entity Undertaking the Project/Partnership Agreements	ConnectGen/Repsol

Project Name:	Project C2
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	A - WEST
Potential Generating Capacity (MWac):	270
Purpose of Project:	Support CLCPA
Estimated completion date	Q1 2027
Entity Undertaking the Project/Partnership Agreements	ConnectGen/Repsol

Project Name:	Project D1
Project Type:	Solar
Project Ownership:	Build Transfer Agreement
Anticipated Location (NYISO Load Zone):	F – CAPITL
Potential Generating Capacity (MWac):	20
Purpose of Project:	Support CLCPA
Estimated completion date	Q2 2026
Entity Undertaking the Project/Partnership Agreements	CS Energy

Project Name:	Project D2
Project Type:	Solar
Project Ownership:	Build Transfer Agreement
Anticipated Location (NYISO Load Zone):	F – CAPITL
Potential Generating Capacity (MWac):	20
Purpose of Project:	Support CLCPA
Estimated completion date	Q2 2026
Entity Undertaking the Project/Partnership Agreements	CS Energy

Project Name:	Project D3
Project Type:	Solar
Project Ownership:	Build Transfer Agreement
Anticipated Location (NYISO Load Zone):	F – CAPITL
Potential Generating Capacity (MWac):	20
Purpose of Project:	Support CLCPA
Estimated completion date	Q4 2026
Entity Undertaking the Project/Partnership Agreements	CS Energy

Project Name:	Project E1
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	A - WEST
Potential Generating Capacity (MWac):	339
Purpose of Project:	Support CLCPA
Estimated completion date	Q1 2025
Entity Undertaking the Project/Partnership Agreements	Forward Power

Project Name:	Project E2
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	D - NORTH
Potential Generating Capacity (MWac):	100
Purpose of Project:	Support CLCPA
Estimated completion date	Q3 2027
Entity Undertaking the Project/Partnership Agreements	Forward Power

Project Name:	Project E3
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	B – GENESE
Potential Generating Capacity (MWac):	184
Purpose of Project:	Support CLCPA
Estimated completion date	Q4 2025
Entity Undertaking the Project/Partnership Agreements	Forward Power

Project Name:	Project E4
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	F - CAPITL
Potential Generating Capacity (MWac):	185
Purpose of Project:	Support CLCPA
Estimated completion date	TBD
Entity Undertaking the Project/Partnership Agreements	Forward Power

Project Name:	Project E5
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	E - MHK VL
Potential Generating Capacity (MWac):	75
Purpose of Project:	Support CLCPA
Estimated completion date	Q3 2029
Entity Undertaking the Project/Partnership Agreements	Forward Power

Project Name:	Project E6
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	C – CENTRL
Potential Generating Capacity (MWac):	199
Purpose of Project:	Support CLCPA
Estimated completion date	Q4 2030
Entity Undertaking the Project/Partnership Agreements	Forward Power

Project Name:	Project E7
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	C – CENTRL
Potential Generating Capacity (MWac):	199
Purpose of Project:	• **Support CLCPA**
Estimated completion date	Q4 2030
Entity Undertaking the Project/Partnership Agreements	Forward Power

Project Name:	Project F1
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	C – CENTRL
Potential Generating Capacity (MWac):	50
Purpose of Project:	Support CLCPA
Estimated completion date	Q4 2026
Entity Undertaking the Project/Partnership Agreements	NextEra Energy Resources

Project Name:	Project F2
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	D - NORTH
Potential Generating Capacity (MWac):	180
Purpose of Project:	Support CLCPA, Actively benefits DACs
Estimated completion date	Q4 2027
Entity Undertaking the Project/Partnership Agreements	NextEra Energy Resources

Project Name:	Project F3
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	B – GENESE
Potential Generating Capacity (MWac):	200
Purpose of Project:	Support CLCPA, Actively benefits DACs
Estimated completion date	Q2 2028
Entity Undertaking the Project/Partnership Agreements	NextEra Energy Resources

Project Name:	Project F4
Project Type:	Solar
Project Ownership:	Co-Development
Anticipated Location (NYISO Load Zone):	C – CENTRL
Potential Generating Capacity (MWac):	79.80
Purpose of Project:	Support CLCPA
Estimated completion date	Q1 2025
Entity Undertaking the Project/Partnership Agreements	NextEra Energy Resources

Project Name:	Project G1
Project Type:	Solar
Project Ownership:	Self-developed
Anticipated Location (NYISO Load Zone):	G - HUD VL
Potential Generating Capacity (MWac):	30
Purpose of Project:	Support CLCPA, Support renewables development on public-owned facilities, Actively benefits DACs
Estimated completion date	Q4 2028
Entity Undertaking the Project/Partnership Agreements	New York Power Authority

Project Name:	Project G2
Project Type:	Solar
Project Ownership:	Self-developed
Anticipated Location (NYISO Load Zone):	C – CENTRL
Potential Generating Capacity (MWac):	42
Purpose of Project:	Support CLCPA, Support renewables development on public-owned facilities
Estimated completion date	Q4 2028

Entity Undertaking the Project/Partnership Agreements	New York Power Authority

Project Name:	**Project G3**
Project Type:	Solar
Project Ownership:	Self-developed
Anticipated Location (NYISO Load Zone):	E - MHK VL
Potential Generating Capacity (MWac):	100
Purpose of Project:	Support CLCPA, Support renewables development on public-owned facilities, Actively benefits DACs
Estimated completion date	Q4 2028
Entity Undertaking the Project/Partnership Agreements	New York Power Authority

Project Name:	**Project G4**
Project Type:	Solar
Project Ownership:	Self-developed
Anticipated Location (NYISO Load Zone):	E - MHK VL
Potential Generating Capacity (MWac):	20
Purpose of Project:	Support CLCPA, Support renewables development on public-owned facilities
Estimated completion date	Q4 2028
Entity Undertaking the Project/Partnership Agreements	New York Power Authority

Project Name:	**Project G5**
Project Type:	Solar (DER)
Project Ownership:	Self-developed
Anticipated Location (NYISO Load Zone):	F – CAPITL
Potential Generating Capacity (MWac):	1.52
Purpose of Project:	Support CLCPA, Support renewables development on public-owned facilities, Actively benefits DACs
Estimated completion date	Q4 2027
Entity Undertaking the Project/Partnership Agreements	New York Power Authority

Project Name:	**Project G6**
Project Type:	Solar (DER)
Project Ownership:	Self-developed

Anticipated Location (NYISO Load Zone):	A - WEST
Potential Generating Capacity (MWac):	1.00
Purpose of Project:	Support CLCPA, Actively benefits DACs
Estimated completion date	Q4 2027
Entity Undertaking the Project/Partnership Agreements	New York Power Authority

Project Name:	**Project G11**
Project Type:	Solar (DER)
Project Ownership:	Self-developed
Anticipated Location (NYISO Load Zone):	F – CAPITL
Potential Generating Capacity (MWac):	1.38
Purpose of Project:	Support CLCPA, Support renewables development on public-owned facilities
Estimated completion date	Q4 2027
Entity Undertaking the Project/Partnership Agreements	New York Power Authority

Project Name:	**Project G14**
Project Type:	Solar (DER)
Project Ownership:	Self-developed
Anticipated Location (NYISO Load Zone):	J – N.Y.C.
Potential Generating Capacity (Mwac):	1.50
Purpose of Project:	Support CLCPA, Support renewables development on public-owned facilities, Actively benefits DACs
Estimated completion date	Q4 2027
Entity Undertaking the Project/Partnership Agreements	New York Power Authority

Project Name:	**Project G15**
Project Type:	Solar (DER)
Project Ownership:	Self-developed
Anticipated Location (NYISO Load Zone):	A – WEST
Potential Generating Capacity (Mwac):	4.96
Purpose of Project:	Support CLCPA, Support renewables development on public-owned facilities
Estimated completion date	Q4 2027
Entity Undertaking the Project/Partnership Agreements	New York Power Authority

Project Name:	Project G16
Project Type:	Solar (DER)
Project Ownership:	Self-developed
Anticipated Location (NYISO Load Zone):	E – MHK VL
Potential Generating Capacity (Mwac):	1.54
Purpose of Project:	Support CLCPA, Support renewables development on public-owned facilities
Estimated completion date	Q4 2027
Entity Undertaking the Project/Partnership Agreements	New York Power Authority

Project Name:	Project H1
Project Type:	BATTERY ENERGY STORAGE SYSTEM
Project Ownership:	Co-development
Anticipated Location (NYISO Load Zone):	G – HUD VL
Potential Generating Capacity (Mwac):	10
Purpose of Project:	Support CLCPA, Resource Adequacy/ Reliability, Actively benefits DACs
Estimated completion date	Q1 2027
Entity Undertaking the Project/Partnership Agreements	Oriden

Project Name:	Project H2
Project Type:	Battery Energy Storage System
Project Ownership:	Co-development
Anticipated Location (NYISO Load Zone):	C – CENTRL
Potential Generating Capacity (Mwac):	50
Purpose of Project:	Support CLCPA, Resource Adequacy/ Reliability, Actively benefits DACs
Estimated completion date	Q2 2028
Entity Undertaking the Project/Partnership Agreements	Oriden

Project Name:	Project H3
Project Type:	Battery Energy Storage System
Project Ownership:	Co-development
Anticipated Location (NYISO Load Zone):	F - CAPITL
Potential Generating Capacity (MWac):	50
Purpose of Project:	Support CLCPA Resource Adequacy/Reliability
Estimated completion date	Q2 2028

Entity Undertaking the Project/Partnership Agreements	Oriden

Project Name:	**Project H4**
Project Type:	Battery Energy Storage System
Project Ownership:	Co-development
Anticipated Location (NYISO Load Zone):	D - NORTH
Potential Generating Capacity (MWac):	50
Purpose of Project:	Support CLCPA, Resource Adequacy/Reliability
Estimated completion date	Q2 2028
Entity Undertaking the Project/Partnership Agreements	Oriden

Project Name:	**Project J1**
Project Type:	Solar (DER)
Project Ownership:	Co-development
Anticipated Location (NYISO Load Zone):	G - HUD VL
Potential Generating Capacity (MWac):	5
Purpose of Project:	Support CLCPA
Estimated completion date	Q2 2025
Entity Undertaking the Project/Partnership Agreements	Teichos Energy

Project Name:	**Project K1**
Project Type:	Solar (DER)
Project Ownership:	Co-development
Anticipated Location (NYISO Load Zone):	G - HUD VL
Potential Generating Capacity (MWac):	10
Purpose of Project:	Support CLCPA
Estimated completion date	Q1 2026
Entity Undertaking the Project/Partnership Agreements	YSG Solar

Project Name:	**Project K3**

Project Type:	Battery Energy Storage System
Project Ownership:	Co-development
Anticipated Location (NYISO Load Zone):	K - LONGIL
Potential Generating Capacity (MWac):	140.00
Purpose of Project:	Support CLCPA Resource Adequacy/Reliability
Estimated completion date	Q4 2026
Entity Undertaking the Project/Partnership Agreements	YSG Solar

Project Name:	**Project K4**
Project Type:	Battery Energy Storage System
Project Ownership:	Co-development
Anticipated Location (NYISO Load Zone):	K - LONGIL
Potential Generating Capacity (MWac):	4.00
Purpose of Project:	Support CLCPA Resource Adequacy/Reliability
Estimated completion date	Q3 2026
Entity Undertaking the Project/Partnership Agreements	YSG Solar

7 APPENDICES

7.1 Appendix A- Summary of NYPA's Expanded Authority

A. Authorizing Provisions

The enactment authorizes NYPA to, among other things, 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 to:

(1) support the State's renewable energy goals established in the CLCPA;

(2) provide or maintain an adequate and reliable supply of electric power and energy in the State, including but not limited to, high need areas and communities served by small natural gas power plants as defined in this section; and

(3) support the newly-authorized REACH Program for the purpose of providing bill credits to low-income and moderate-income ratepayers in Disadvantaged Communities.

The enactment defines "renewable energy generating projects" as: "(A) facilities that generate power and energy by means of a renewable energy system; (B) facilities that store and discharge power and energy; and (C) facilities, including generator lead

lines, for interconnection of renewable energy generating projects to delivery points within the State of New York."[1] The category "renewable energy system" includes: "systems that generate electricity or thermal energy through use of the following technologies: solar thermal, photovoltaics, on land and offshore wind, hydroelectric, geothermal electric, geothermal ground source heat, tidal energy, wave energy, ocean thermal, and fuel cells which do not utilize a fossil fuel resource in the process of generating electricity."[2]

NYPA may advance renewable energy generating projects either alone or through public private partnerships, provided that NYPA maintains a majority ownership of such project.[3] NYPA may also create one or more subsidiaries to perform all or part of its powers and functions to advance renewable energy generation projects under PAL § 1005 (27-a) or to implement the Renewable Energy Access and Community Help Program ("REACH") under PAL § 1005 (27-b).

To finance projects, NYPA may use (1) the proceeds of notes issued pursuant to PAL §1009-a, (2) the proceeds of bonds issued under PAL § 1010, (3) other funds made available by NYPA, or (4) other funds made available to NYPA from non-NYPA sources, such as the State or Federal Government.[4] NYPA may sell the outputs of renewable energy generating projects identified in its Strategic Plan, including (1) RECs to NYSERDA, (2) renewable power and energy or ancillary services to, or into, markets operated by NYISO, and (3) renewable power and energy and RECs or attributes to (A) New York State load serving entities, including the Long Island Power Authority, (B) manufacturers of green hydrogen or other zero-emission technology, (C) public entities, such as state agencies and municipalities, (D) community distributed generation providers, energy aggregators, and similar entities, and (e) Community Choice Aggregation communities.[5]

[1] PAL § 1005(27-a)(i)(iv)
[2] PAL § 1005(27-a)(i)(vii) and PSL § 66-p(1)(b).
[3] PAL § 1005 27-a)(a)(i).
[4] PAL § 1005(27-a)(g).
[5] PAL § 1005(27-a)(h). The annual report must be posted on the NYPA website.

B. Strategic Planning Requirements

To implement its expanded authority, NYPA must, beginning in 2025, and biennially thereafter until 2033, develop and publish a renewable energy generation strategic plan that identifies, among other things, the State's progress towards achieving the CLCPA's renewable energy goals and renewable energy generating priorities for the two-year period covered by the strategic plan.

The enactment states that:

(ii) In developing, and updating, the strategic plan, the authority shall consider:

(A) information developed pursuant to paragraph (d) of this subdivision;

(B) high need areas where transmission and distribution upgrades will be necessary to interconnect new renewable energy generation projects;

(C) the feasibility of projects, based on costs, potential benefits, and other relevant considerations;

(D) the fiscal condition of the authority and the impacts of potential renewable energy generating projects on the authority and its subsidiaries;

(E) ways to minimize any negative tax revenue impacts on municipalities that host renewable energy generating projects, including but not limited to, PILOT and/or community benefit agreements;

(F) the timing, characteristics and size of the renewable energy generating projects in the interconnection queue of the federally designated electric bulk system operator for New York state;

(G) in consultation with the federally designated electric bulk system operator for New York state, the power, energy and ancillary services provided by planned renewable energy generating projects, taking into account the historical completion rate of similar projects; and

(H) opportunities to work in partnership with private sector renewable energy developers to accelerate activity, catalyze greater scale, and spur additional market participation.

(iii) The strategic plan shall address the purposes stated in paragraph (a) of this subdivision, and prioritize projects that:

(A) actively benefit disadvantaged communities;

(B) serve publicly-owned facilities; and

(C) support the renewable energy access and community help program established pursuant to subdivision twenty-seven-b of this section.

(iv) The strategic plan shall assess and identify at a minimum:

(A) renewable energy generating high need and priority areas;

(B) priority locations for the development of renewable energy generating projects;

(C) the types and capacity of renewable energy resources to be utilized;

(D) the estimated cost of renewable energy generating projects to the extent known;

(E) a description of any delays or anticipated delays associated with completion of the renewable energy generating projects;

(F) which of the intended purposes in paragraph (a) of this subdivision each renewable energy generating project is intended to support;

(G) any prioritization given to the order of development of renewable energy generating projects;

(H) the benefits associated with the renewable energy generating projects, including any benefits to disadvantaged communities;

(I) any benefits to rate payers;

(J) the state's progress towards achieving the renewable energy goals of the climate leadership and community protection act; and

(K) any other information the authority determines to be appropriate.

(v) The plan shall include a list of proposed renewable energy generating projects. Such list shall include projects that are planned to be commenced prior to the next update or version of the plan, and at the authority's discretion need not include any projects in the planning stage. Each proposed project listed shall include, without limitation:

(A) location of the project, to the extent that property associated with such location has been secured for the proposed project;

(B) the type, or types, of renewable energy resources utilized;

(C) the potential generating capacity of each project;

(D) the estimated project cost;

(E) the timeline for completion; and

(F) the entity undertaking the proposed project and any public partnership agreements the authority or its subsidiaries enter into for such project.[1]

[1] PAL §1005(27-a)(e)(ii)-(v).

C. C. Strategic Plan Public Comments and Hearings

The Power Authority conducts public comment and public hearings on its draft NYPA Renewables Strategic Plan as follows:

The authority shall post a draft of the strategic plan on its website for public comment for a period of at least sixty days, and shall hold at least three public hearings on the draft strategic plan in regionally diverse parts of the state.[13]

NYPA, "after considering the stakeholder input" will "publish the first final strategic plan on its website no later than January thirty-first, two thousand twenty-five."[14]

The Power Authority updates its NYPA Renewables Strategic Plan at least annually, as follows:

The authority, until two thousand thirty-five, shall update each biennial strategic plan annually, after a public comment period of at least thirty days and at least one public hearing. Such updated strategic plan shall include a review of the implementation of the projects previously included in the strategic plan with necessary updates, including status in the interconnection queue. The authority may update the plan more often than annually provided that it follows the public comment and public hearing process for updated plans prescribed by this paragraph.[15]

Following publication of this document, NYPA's Board of Trustees will approve all renewable energy generating projects the authority plans to undertake.[16]

D. Conferral Process Requirements

To help inform NYPA's development of its biennial strategic plans, NYPA confers annually with stakeholders to solicit their views on New York State's progress on meeting the renewable energy goals of the CLCPA.[17] The enactment sets forth the manner in which NYPA consults stakeholders, stating:

In developing the strategic plan, the authority shall consult with stakeholders including, without limitation, climate and resiliency experts, labor organizations, environmental justice communities, disadvantaged community members, residential and small business ratepayer advocates, and community organizations. The authority shall also seek, where possible, community input through the regional clean energy hubs program administered by the energy research and development authority.[18]

During the conferral process, NYPA also considers the timing of projects in the interconnection queue administered by the New York Independent System Operator (NYISO), the capacity factors of such projects, and the historical completion rate of

[13] PAL § 1005(27-a)(e)(vii).
[14] PAL § 1005(27-a)(e)(viii).
[15] PAL § 1005(27-a)(e)(ix).
[16] PAL § 1005(27-a)(q).
[17] PAL § 1005(27-a)(d).
[18] PAL § 1005(27-a)(e)(vi). PAL § 1005(27-a)(e)(x) provides that the "strategic plan and any update thereof shall not be deemed final until it is approved by the authority's trustees."

such projects in the NYISO interconnection queue.[19] Finally, NYPA publishes a report on the information developed through this conferral process on NYPA's website.

E. Reporting Requirements

NYPA will report on or before Jan.31, 2025, and annually thereafter, to the governor, the speaker of the Assembly, and the temporary president of the Senate on the following:[20] :

(i) a description of the renewable energy projects the authority has planned, designed, developed, financed, or constructed and that it owns, operates, maintains or improves, alone or jointly with other entities, under the authority of this subdivision;

(ii) a description of the acquisition, lease or other disposition of interests in renewable energy generating projects by the authority under this subdivision;

(iii) a listing of all renewable power, energy, ancillary services and related credits and attributes sold or purchased by the authority from such projects;

(iv) a listing of the entities to which the authority has supplied, allocated or sold any renewable power, energy, ancillary services or related credits or attributes from such projects;

(v) a listing and description of all subsidiaries that the authority formed, public-private partnerships the authority has joined, and the subsidiaries and public-private partnerships from and to which the authority acquired or transferred any interests;

(vi) the total amount of revenues generated from the sale of renewable energy products from such projects; and

(vii) an explanation of how each renewable energy generation project supports the purposes listed in paragraph (a) of this subdivision.[21]

F. Labor Law, Domestic Content and Environmental Requirements

The renewable energy generating projects developed pursuant to the enactment will be considered public work and will be subject to the labor standards and requirements, including the prevailing wage rates, as prescribed by articles eight and nine of the New York State Labor Law.[22]

NYPA will require each contract for a renewable energy generating project to contain a provision that such project may only be undertaken pursuant to a project labor agreement.[23] NYPA will require all contractors and subcontractors associated with the project work to utilize apprenticeship agreements pursuant to article twenty-three of the labor law.[24]

[19] Id.
[20] PAL § 1005(27-a)(j).
[21] Id.
[22] PAL § 1005 (27-a)(k)
[23] Id.
[24] Id.

NYPA will follow the additional labor law protections and collective bargaining rights in the enactment.[25] Any person entering into a contract for a project authorized pursuant to this enactment will be considered a state agency and such contracts will be considered state contracts.[26]

NYPA will also require that any procurement or development of a renewable energy generating project will involve the components and parts to be produced or made in whole or substantial part in the United States, its territories or possessions.[27] NYPA's president and chief executive officer may waive this requirement under certain circumstances after providing notice and an opportunity for public comment.[28]

For the operation and maintenance of the renewable energy projects developed pursuant to the enactment, NYPA will enter into a memorandum of understanding with a bona fide labor organization that is actively engaged in representing transitioning employees from non-renewable generation facilities. The employees eligible for these positions will first be selected from a pool of transitioning workers who have lost their employment or will be losing their employment in the non-renewable energy generation sector.[29]

From an environmental perspective, NYPA will comply with generation siting requirements,[30] provide host community benefits and contribute to the endangered and threatened species mitigation bank fund.[31] The Power Authority will also protect agricultural land, minimize harm to wildlife, ecosystems, public health and public safety, and not build on Native American land except on a voluntary basis.[32]

7.2 Appendix B- Climate Act Progress

A. CLIMATE ACT PROGRESS

The CLCPA requires the PSC to issue a comprehensive review of the Clean Energy Standard ("CES") no later than July 1, 2024, and to do so every two years thereafter ("CES Biennial Review"). On July 1, 2024, staff from the New York State Department of Public Service ("DPS") and the New York State Energy Research and Development Authority ("NYSERDA") filed a draft version of the inaugural CES Biennial Review for consideration by the PSC.[1] The analysis of New York's Climate Act progress in this 2024 Conferral Report was developed using information from the draft CES Biennial Review.

The draft CES Biennial Review provides both retrospective and prospective views of the State's progress towards achieving the renewable energy goals of the CLCPA. The first four sections cover progress to date, addressing the policy and regulatory background of the CES and its

[25] PAL § 1005(27-a)(m) These include civil service, collective bargaining, loss or displacement of positions, collective bargaining agreements, and transfers of existing and future duties and functions.

[26] PAL § 1005 (27-a)(0)

[27] PAL § 1005 (27-a)(l)

[28] Id.

[29] PAL § 1005 (27-a)(n). A list of potential employees will be provided by affected labor organizations and provided to the department of labor. The department of labor will update and provide such a list to NYPA ninety days prior to purchase, acquisition, and/or construction of a renewable energy project.

[30] Drop a footnote to RAPID and its chapter of enactment this year.

[31] PAL § 1005(27-a)(p).

[32] PAL § 1005(27-a)(b).

antecedent program, the Renewable Portfolio Standard, operational renewable energy systems that have come online prior to January 1, 2023, contracted renewables, and factors affecting progress, including inflation, interest rates, transmission congestion, interconnection delays, capacity accreditation, federal incentives, siting reforms, and unforeseen growth in Statewide electric load. The final two sections set forth a prospective view on various pathways to meeting the 70% Renewable Energy Goal (discussed below) and options to reform the CES program.

B. THE 70% RENEWABLE ENERGY GOAL

To accomplish the 70% Renewable Energy Goal, the PSC relies primarily upon the CES, originally established in August of 2016.[2] The CES is administered by NYSERDA, with oversight from the PSC and DPS.

At the heart of the CES is NYSERDA's procurement of renewable and zero-emission energy attributes from generators injecting renewable or zero-emission energy into the New York State Control Area. These attributes, referred to as renewable energy certificates ("RECs") and zero-emission credits ("ZECs"), are purchased by NYSERDA as a centralized procurement agent before they are then sold to the State's jurisdictional load serving entities in proportion to their share of the Statewide load.[3] Although the purchase of ZECs advances the 100% Zero Emissions Goal by providing support for nuclear generation, it does not contribute to the renewable energy goals of the CLCPA. In addition to the CES, the NY-Sun program (discussed below) provides incentives for distributed energy resources that also contribute significantly towards both the 10 GW Distributed Solar Goal and the 70% Renewable Energy Goal.

In the 2023 Conferral Report, NYPA reported that New York had enough operating, contracted, and under-development renewable projects to supply 79% of the State's 2030 electricity needs but that recent inflationary pressures may result in some projects failing to deliver on their contractual obligations.[4] On October 12, 2023, the PSC denied petitions requesting additional financial relief to offshore and onshore renewable energy generation projects that were previously awarded contracts by NYSERDA in order to preserve the State's competitive bidding process to procure renewable energy resources in the fairest and most cost-effective manner.[5] Shortly thereafter, Governor Hochul announced the release of a 10-Point Action Plan ("Action Plan") to expand and support the growing large-scale renewable energy industry in New York, reaffirming the State's commitment to achieving the Climate Act goals.[6] Included within the Action Plan was a directive to NYSERDA to launch accelerated procurements to help backfill any renewable energy project contracts that are terminated. Ultimately, renewable energy developers terminated contracts for 88 projects.[7]

In accordance with the Action Plan, NYSERDA launched an accelerated procurement process for both Tier 1 and offshore wind resources on November 30, 2023.[8] After conducting an expedited procurement process, on February 29, 2024, NYSERDA announced the results of the expedited offshore wind procurement, awarding contracts totaling 1.7 GW of planned generation capacity anticipated to reach commercial operation by 2027.[9] Then, on April 29, 2024, NYSERDA announced 24 provisional Tier 1 awards to wind and solar projects totaling nearly 2.4 GW of renewable energy capacity.[10] On June 20, 2024, NYSERDA launched the 2024 Tier 1 solicitation, seeking additional renewable energy projects on an expedited basis.[11] In addition, on July 17, 2024, NYSERDA launched its fifth offshore wind solicitation.[12]

Statewide electric load is also a key factor in achieving the 70% Renewable Energy Goal. The draft CES Biennial Review load forecast includes a significantly higher estimate of load, relative

to the 2020 CES Order,[13] reflecting anticipated load growth that was not previously foreseen, from 151,678 GWh as estimated in 2020, to 164,910 GWh as estimated in July of 2024.[14] Factors contributing to this forecasted load growth are (1) new large loads from manufacturing, datacenters, and cryptocurrency mining facilities, (2) increased electrification of buildings, and (3) increased electric vehicle usage.[15]

As of the date of this Conferral Report, NYSERDA and DPS now estimate that New York has enough operating and contracted projects to supply 73,292 GWh of renewable energy by 2030, out of an estimated 2030 statewide load of 164,910 GWh.[16] Additional contracted projects from CES solicitations will add to the renewable energy supply as indicated in the draft CES Biennial Review.[17] The State continues to progress towards the 70% Renewable Energy Goal, with recent estimates from NYSERDA and DPS laying out various scenarios and pathways to reaching that goal, one of which illustrates a potential path to achieving the goal by 2033.[18]

C. EXPANSION TO THE 10 GW DISTRIBUTED SOLAR GOAL

To accomplish both the 6 GW Distributed Solar Goal and the expanded 10 GW Distributed Solar Goal, New York State relies primarily upon the NY-Sun solar incentive program,[19] coupled with the Value of Distributed Energy Resources ("VDER") compensation mechanism.[20] In addition, NYSERDA estimates that there are significant contributions from projects outside of the NY-Sun portfolio, some originating in the service territory of the Long Island Power Authority ("LIPA").[21] Together, these programs are on track to achieve the 6 GW Distributed Solar Goal. As of the date of the 2023 Conferral Report, New York State had 5,037 MWDC of distributed solar energy generation in operation. As of June 30, 2024, New York State had 5,889 MWDC of installed solar photovoltaic generating capacity.[22]

With substantial progress towards achieving the 6 GW Distributed Solar Goal, the discussion turns to the expanded 10 GW Distributed Solar Goal. In the 10 GW Order, the PSC noted that the 10 GW Distributed Solar Goal is likely to be met within the existing budget. Accordingly, the PSC required NYSERDA to submit a plan on how best to utilize the excess funds to achieve the development of additional distributed solar projects while leveraging federal incentives and maximizing benefits to low-income customers. In recent compliance filings, NYSERDA, as the NY-Sun program administrator, was confident that not only can the 10 GW Distributed Solar Goal be met, but potentially exceeded.[23] According to recent filings, and the most recent NY-Sun Operating Plan, the NY-Sun Program has enough available funding to meet its goal of 8,363 MW, with projects funded outside of NY-Sun making up the remaining 1,637 MW.[24] As of July 31, 2024, there are 3,412 MWDC of solar projects at an advanced stage of development that are slated to receive NYSERDA incentive awards.

D. THE 6 GW ENERGY STORAGE GOAL

On January 5, 2022, Governor Kathy Hochul announced in her State of the State address an intention to double the State's 2030 energy storage deployment target from the legislated 3 GW to 6 GW of storage capacity by 2030. At its June 2024 Session, the PSC approved an order expanding New York's energy storage target to 6 GW by 2030 with an interim goal of 1.5 GW by 2025 (the "Storage Order").[25] The Storage Order approved the Energy Storage Roadmap entitled "New York's 6 GW Energy Storage Roadmap" as filed by NYSERDA and DPS in December 2022 and updated in March 2024 to account for inflation-related cost increases.[26] The Energy Storage Roadmap included a tally of contracted and awarded energy storage projects totaling 1.3 GW.[27]

To achieve the 6 GW Energy Storage Goal, the PSC directed NYSERDA to procure an additional 4.7 GW of storage consisting of 3 GW of bulk storage (resources above 5 MW), 1.5 GW of retail/community storage (resources up to 5 MW), and 200 MW of residential/behind-the-meter storage to be in service by December 31, 2030.[28] For the bulk storage program, the Storage Order directed NYSERDA to conduct at least three solicitations of one GW each to achieve these targets, and to issue the first RFP no later than June 30, 2025.[29] The Storage Order included some specific procurement requirements, including a requirement that 35% of projects be in NYISO Zones G-K, with at least 30% in Zone J, to maximize benefits to disadvantaged communities, and that 20% of bulk storage awards go to long duration (greater than 8 hours) storage projects.[30] In the Storage Order the PSC noted that "[c]ertain regions, such as Long Island and New York City, are especially ripe for the replacement of peaker plants with energy storage resources and the associated emission reduction directly benefiting those communities."[31]

E. THE 9 GW OFFSHORE WIND GOAL

The draft CES Biennial Review summarizes the challenges faced by the offshore wind industry as follows:

The offshore wind industry has experienced interest rate, inflation, and supply chain vulnerabilities and constraints. Due to the magnitude of offshore wind projects and the upfront capital required to finance such projects, changes to the costs of capital and the costs of inputs can significantly impact financing models across the industry. Similarly unique to offshore wind projects is the need for suitable ports, installation vessels, and equipment such as turbines, substructures, cables, and electrical components. This includes the offshore wind projects requiring high-voltage direct current (HVDC) transmission equipment, which is in limited supply and shortages of which may impact timelines for projects. Due to the magnitude and complexity of each project, delays in one project can result in a cascading delay to other projects, or even a loss of access to one or more of these resources necessary for construction, which can further extend delays.[32]

As of the date of the 2023 Conferral Report, NYSERDA had awarded contracts to 8,392 MW of offshore wind generation capacity. Since that time, the economic headwinds discussed above led to the attrition of these awarded offshore wind contracts, allowing the offshore wind developers to bid into additional NYSERDA solicitations.

As mentioned above, on November 30, 2023, NYSERDA launched its fourth offshore wind solicitation.[33] On February 29, 2024, NYSERDA announced the results of this fourth offshore wind procurement, awarding contracts totaling 1.7 GW of planned generation capacity.[34] In addition, on July 17, 2024, NYSERDA launched a fifth offshore wind solicitation with public award notifications expected in early 2025.[35] These recent developments will help New York progress towards achievement of the 9 GW Offshore Wind Goal.

[1] Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Draft Cean Energy Standard Biennial Review (filed July 1, 2024).

[2] Case 15-E-0302, et al., Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard (Issued August 1, 2016).

[3] See Case 15-E-0302, et al., Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Modifying Clean Energy Standard Tier 1 Obligations (Issued April 20, 2023).

[4] See 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 2023, pages 5-7 (Published November 2023).

[5] Case 15-E-0302, et al., Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Denying Petitions Seeking to Amend Contracts with Renewable Energy Projects (October 12, 2023).

[6] New York State's 10-Point Action Plan to Expand a Thriving Large-Scale Renewable Industry, NYSERDA, October 2023. https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Offshore-Wind/10-point-plan.pdf.

[7] Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Draft Clean Energy Standard Biennial Review, page 47 (filed July 1, 2024).

[8] See RESRFP23-1, available at https://www.nyserda.ny.gov/All-Programs/Large-Scale-Renewables/RES-Tier-One-Eligibility/Solicitations-for-Long-term-Contracts/2023-Solicitation-Resources. See also ORECRFP23-1, available at https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/Focus-Areas/Offshore-Wind-Solicitations/2023-Solicitation.

[9] Two Offshore Wind Project Awards Announced, To Deliver Clean Power In 2026, Available at: https://www.nyserda.ny.gov/About/Newsroom/2024-Announcements/2024_02_29-Governor-Hochul-Announces-Two-Offshore-Wind-Project_Awards.

[10] See RESRFP23-1 Landing Page, available at: https://www.nyserda.ny.gov/All-Programs/Large-Scale-Renewables/RES-Tier-One-Eligibility/Solicitations-for-Long-term-Contracts/2023-Solicitation-Resources.

[11] See RESRFP24-1, available at https://www.nyserda.ny.gov/All-Programs/Large-Scale-Renewables/RES-Tier-One-Eligibility/Solicitations-for-Long-term-Contracts.

[12] See ORECRFP24-1, available at: https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/Focus-Areas/Offshore-Wind-Solicitations/2024-Solicitation.

[13] Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting Modifications to the Clean Energy Standard (Issued October 15, 2020).

[14] Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Draft Clean Energy Standard Biennial Review, page 53 (filed July 1, 2024).

[15] Id.

[16] Id. at 56.

[17] Id. at 58.

[18] Id. at 58.

[19] Case 03-E-0188, Retail Renewable Portfolio Standard, Order Authorizing Funding and Implementation of the Solar Photovoltaic MW Block Programs (Issued April 24, 2014).

[20] Case 15-E-0751, et al., In the Matter of the Value of Distributed Energy Resources, Order on New Energy Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters (Issued March 9, 2017).

[21] Case 21-E-0629, In the Matter of the Advancement of Distributed Solar, Report: Impacts of the Inflation Reduction Act and the Incremental Distributed Solar Capacity that Could be Procured Within the Currently Authorized Budget, footnote 28 (filed January 5, 2024).

[22] Statewide Distributed Solar Projects, available at https://www.nyserda.ny.gov/All-Programs/NY-Sun/Solar-Data-Maps/Statewide-Distributed-Solar-Projects.

[23] Case 21-E-0629, In the Matter of the Advancement of Distributed Solar, Report: Impacts of the Inflation Reduction Act and the Incremental Distributed Solar Capacity that Could be Procured Within the Currently Authorized Budget (filed January 5, 2024).

[24] Id. See also, Case 21-E-0629, In the Matter of the Advancement of Distributed Solar, NY-Sun 2020-2030 Operating Plan, page 9, footnote 16 (Effective July 31, 2023).

[25] Case 18-E-0130, In the Matter of Energy Storage Deployment Program, Order Establishing Updated Storage Goal and Deployment Policy, at 3 (June 20, 2024).

[26] In the Storage Order the PSC also provided its triennial review of the state of storage program implementation (pages 10-24) and acknowledged NYPA's 20 MW storage project in Chateaugay (page 18).

[27] Id. at 6.

[28] Id. at 41, 47, 60.

[29] Id. at 33.

[30] Id. at 58-59.

[31] Id. at 34.

[32] Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Draft Clean Energy Standard Biennial Review, pages 14-15 (filed July 1, 2024).

[33] See ORECRFP23-1, available at https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/Focus-Areas/Offshore-Wind-Solicitations/2023-Solicitation.

[34] Two Offshore Wind Project Awards Announced, To Deliver Clean Power In 2026, Available at: https://www.nyserda.ny.gov/About/Newsroom/2024-Announcements/2024_02_29-Governor-Hochul-Announces-Two-Offshore-Wind-Project_Awards.

[35] See ORECRFP24-1, available at: https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/Focus-Areas/Offshore-Wind-Solicitations/2024-Solicitation.

7.3 Appendix C- NYISO Generator Interconnection

A. INTRODUCTION

In developing its Strategic Plan, NYPA considers "the timing, characteristics and size of the renewable energy generating projects in the interconnection queue of the federally designated electric bulk system operator for New York state."[1] In addition, the Strategic Plan will reflect information developed during the conferral process, which includes "consideration of the timing of projects in the interconnection queue of the federally designated electric bulk system operator for New York state, taking into account both capacity factors or planned projects and the interconnection queue's historical completion rate."[2]

In the 2023 and 2024 conferral processes, NYPA engaged with the New York Independent System Operator ("NYISO") to accurately characterize projects in the NYISO generator interconnection queue and how the interconnection process relates to the State's progress on meeting the renewable energy goals established by the Climate Act. NYPA also discussed with the NYISO the timing of projects in the NYISO's interconnection queue, considering both capacity factors of planned projects and the interconnection queue's historical completion rate. Further, NYPA analyzed numerous public documents to gather additional information about these matters, including the current and ongoing queue reform process.

B. BACKGROUND

The NYISO, operating under the oversight of the Federal Energy Regulatory Commission ("FERC"), administers interconnection of new generation to ensure that electric system resources (*e.g.*, generation, storage) are supported by the infrastructure necessary to transmit the generated and stored electricity and support reliable operation of the State's electric grid. The process aims to interconnect resources in a manner that meets minimum interconnection standards that are established by reliability standards organizations and at the least cost.[3]

The NYISO's interconnection processes are regulated by FERC and are set forth in tariffs that are approved by FERC.[4] Generators that seek to interconnect to the transmission system in New York State and to make wholesale sales of electricity must receive approval and an interconnection agreement signed by the NYISO and the connecting transmission owner. Generators sized up to and including 5 MW, and that do not involve federal-jurisdictional transmission or wholesale electricity sales, interconnect to the power system under PSC procedures, which are not part of the NYISO's interconnection queue.

C. NYISO'S INTERCONNECTION PROCESS THROUGH CLASS YEAR 2023

Proposed generation projects have been processed by the NYISO according to a first-come, first-served process. Developers who submit a complete application to the NYISO have their generation projects placed in an interconnection queue. Prior to the recent reforms discussed below, the NYISO interconnection process utilized a series of increasingly specific studies: (1) Feasibility Studies, (2) System Impact Studies or System Reliability Impact Studies, and (3) Facilities Studies, which analyze projects together in a Class Year study for a group of projects. The study processes required the cooperation of the project developers, the NYISO, the connecting transmission owner, affected transmission owners, affected system operators outside New York, and other stakeholders. At the conclusion of the studies, developers knew

their interconnection facilities and costs. If they chose to proceed, developers posted collateral to cover their interconnection costs, and signed an interconnection agreement with the NYISO and the Connecting Transmission Owner.[5]

D. HISTORICAL COMPLETION RATE OF THE NYISO INTERCONNECTION QUEUE

The surge in proposed renewable resource and transmission projects together has created a significant backlog in the interconnection of renewable generation projects to the New York transmission system. In 2018, the NYISO interconnection queue contained approximately 120 projects. As of May 2024, over 500 projects were in the NYISO interconnection queue.[6] Based on 2022 data, the median time to complete the NYISO interconnection study process and execute an interconnection agreement was three to four years.[7] Processing time in the interconnection process has varied among projects and has been affected by a number of factors.

Some delays are caused by generation developers. These include:

- Insufficient data: Developers may fail to provide the NYISO necessary data to study proposed projects or may fail to provide required updates to their interconnection requests and supporting data.
- Timing of election: Developers had the flexibility to make certain elections under the NYISO process through Class Year 2023, which could have extended the timeline for the study process depending upon the developers' elections. For example, developers could choose to wait in the queue for months or years before they enter the final required interconnection study.
- Project modifications: Under the NYISO process through Class Year 2023, developers could propose modifications to their projects during the interconnection study process. Such modifications typically created delays, sometimes significant, in the interconnection study process.

Generation interconnection delay is a national phenomenon and is not unique to New York. In its interconnection reform order, Order No. 2023, the FERC found that:

- As of the end of 2022, there were over 10,000 active interconnection requests in interconnection queues throughout the United States, representing over 2,000 GW of potential generation and storage capacity. This potential generation is the largest interconnection queue size on record, more than four times the total volume (in GW) of the interconnection queues in 2010, and a 40% increase over the interconnection queue size from just the year prior. These trends are not exclusive to any one region of the country. Instead, every single region has faced an increase in both interconnection queue size and the length of time interconnection customers are spending in the interconnection queue prior to commercial operation in recent years. Interconnection customers are waiting longer in the interconnection queues nationwide.[8]

The Class Year 2019 group of projects seeking to connect to New York's electric grid contained over 8,000 MW of nameplate capacity, which included 38 solar projects totaling 1,738 MW, 12 wind projects totaling 3,108 MW, and 26 energy storage projects totaling 1,069 MW.[9] The

Class Year 2021 group included over 50 proposed projects, consisting of over 7,000 MWs of renewable energy generating projects, including two offshore wind projects.

In Class Year 2023, the NYISO is studying a group of 70 proposed projects, consisting of over 14,000 MWs of renewable energy. The projects under review consists predominately of wind and solar, which will have capacity factors determined by the number of hours a generator is expected to produce energy over a year compared to its nameplate capability. In September 2024, the NYISO issued the Class Year 2023 Facilities Study System Upgrade Facilities (SUF) and System Deliverability Upgrade (SDU) Report, which identified and allocated costs to reliably interconnect these projects. On Sept. 26, 2024, the report was approved by the NYISO's Operating Committee (OC). The NYISO estimates that the class year study of these projects will be presented to the NYISO's Operating Committee for approval in fall 2024, and will be completed this year. Developers can withdraw from the study process or decide whether to move forward with their projects after the interconnection studies are completed.

E. NYISO INTERCONNECTION PROCESS REFORMS PRIOR TO FERC ORDER 2023

Prior to FERC Order No. 2023, the NYISO made some changes to speed up interconnection reviews. These include eliminating certain duplicative study requirements, allowing some projects needing additional study to do so outside the class year process so as not to slow down review of other projects, and lowering milestone permitting requirements that must be completed to proceed through the process.

To address the significant surge in proposed interconnections as part of the historic transition that is underway on the electric grid, the NYISO initiated a comprehensive interconnection queue reform initiative with its stakeholders in late 2022.[10]

F. FERC'S 2023 INTERCONNECTION REFORM ORDER

On July 28, 2023, FERC issued a landmark order on reforming the generator interconnection process nationwide. The order included changes to weed out projects that are not viable and that otherwise delayed the interconnection process. Entitled "Improvements to Generator Interconnection Procedures and Agreements" ("Order No. 2023"), FERC described its reforms as primarily falling into three categories:

(1) creating a first-ready, first-served cluster study process;

(2) increasing the speed of the interconnection processes of transmission providers for new transmission and generation projects; and

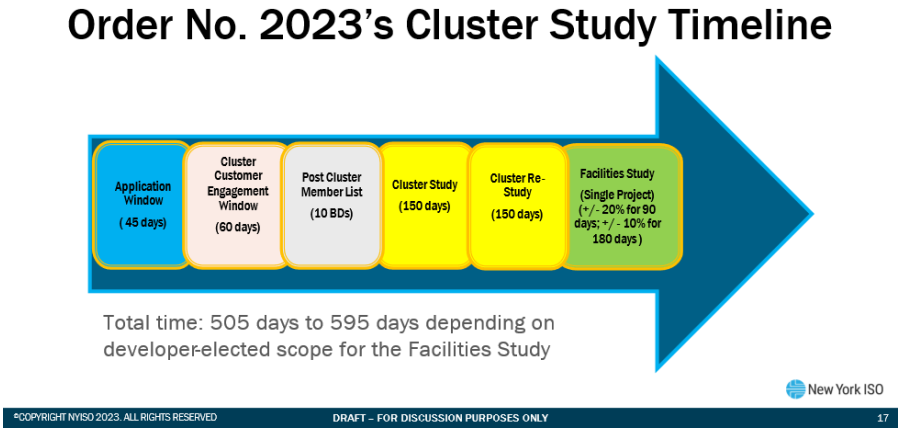
(3) incorporating advanced technologies, such as energy storage and transmission devices, into the interconnection process.[11]

On May 1, 2024, the NYISO submitted its Order No. 2023 compliance filing and asked FERC to makes it effective the next day in order to begin implementation right away, in parallel with the completion of its final Class Year Study for 2023 under its prior procedures. The NYISO established a cluster study process that groups projects for a preliminary physical infeasibility screen followed by a two-phased evaluation of the reliability impacts of the projects' interconnections. The first phase assesses the local impacts of proposed interconnections, while the second phase assesses the broader systemwide impacts. Based on the results of the first phase, developers will decide whether to enter the second phase. The cluster study

ultimately identifies necessary system upgrade facilities and allocates the costs of those facilities among participating generators.

The NYISO began implementation of procedures to transition to its new interconnection process on May 2, 2024. It commenced a transition Cluster Study Process under its new standard interconnection procedures on August 1, 2024. Following implementation of the new process in May, 255 generation projects were withdrawn from the NYISO's interconnection queue under transition rules proposed as part of the Order No. 2023 compliance.[12] Those projects have the option to submit requests to enter the transitional cluster study until the application window closes on October 15, 2024.

The NYISO expects the study process to be completed for all projects in the transitional cluster study by the end of July 2026. The next Cluster Study would then commence in September 2026. According to the NYISO, the new interconnection process is expected to be faster, completing in 590 days or about 1.6 years, compared to the previous process that took between three and four years. The timeline below depicts the NYISO's new generation project interconnection cluster study process:



The NYISO's new interconnection process incorporates a myriad of changes in over one thousand pages of new tariff provisions. In summary, the new process seeks to implement the following reforms in Order No. 2023:

- shorten the timeframe for the NYISO's interconnection process in line with the timeframe established in Order No. 2023, by establishing a two-phase Cluster Study Process that incorporates the NYISO's longstanding "first-ready, first-served" clustered Class Year Study into the FERC's new framework and eliminates the stand-alone feasibility and system impact studies;

- establish a pre-application process and a "heatmap," which shows available transmission capability and constraints, to provide interconnection customers with the opportunity to obtain additional information prior to the submission of their interconnection requests;
- screen out projects that are not physically feasible early in the Cluster Study Process to identify physically infeasible interconnections, and permit penalty free withdrawals due to physical infeasibility;

- establish enhanced submission requirements, including more stringent study deposit, technical data and site control requirements, and strict deadlines to cure deficiencies;
- establish several decision periods within the Cluster Study Process with commercial readiness deposits and withdrawal penalties, along with a mechanism for distributing any collected withdrawal penalty funds;
- establish rules to limit project modifications during the Cluster Study Process and provide additional mechanisms for requesting extensions to a project's commercial operation date;
- establish a penalty framework for missed deadlines in the performance of the Cluster Study or an Affected System Study, which would apply to the NYISO take effect in its third Cluster Study Process;
- retain or otherwise incorporate into the Cluster Study Process technology advancement requirements identified in Order No. 2023 related to co-located resources, generator additions, alternative transmission technologies, and modeling and ride-through requirements for non-synchronous generating resources;
- revise operating procedures used to mitigate reliability impacts under the NYISO's Minimum Interconnection Standard so that upgrades are less likely to be required for resources such as energy storage resources;
- address requirements for affected systems located in the New York Control Area and neighboring systems;

  align the treatment of small generating facilities (20 MW or less) with the Cluster Study Process for large generators, incorporating all generation facilities into a single, standardized process;
- establish a transition Cluster Study Process available to all interconnection customers that satisfy the process entry requirements to enable interconnection customers to immediately make use of the new study process without prerequisite studies; and
- provide for additional pro forma forms and agreements to expedite the interconnection process, the negotiation of required agreements, and the construction of required upgrades.[13]

The NYISO summarized its proposed reforms as follows:

These compliance reforms will collectively drive substantial efficiencies and improvements in the NYISO's interconnection process and are directly targeted at enabling the increasing number of projects seeking to interconnect in New York to do so in a reliable, efficient, transparent, and timely manner. In addition to complying with [FERC] directives, the NYISO's proposed reforms will assist New York State in satisfying its ambitious climate goals.[14]

In sum, the NYISO's reforms of its generator interconnection process are expected to lead to fewer delays and faster completion of the generator interconnections in New York. The success of the NYISO's new interconnection process depends on FERC granting its approval and on the outcome of federal court appeals of FERC Order No. 2023. Monitoring the progress of the new process will be important to determining whether the timing of the interconnection queue meets

the expected timeline, and if projects that New York needs to fulfill its climate change targets complete interconnection and enter into service on a timely basis.

---

[1] PAL § 1005(27-a)(e)(ii)(F).

[2] PAL § 1005(27-a)(e)(ii)(A) (citing to PAL § 1005(27-a)(d)).

[3] The NYISO's interconnection processes are regulated by FERC and are set forth in tariffs approved by FERC and posted on the NYISO's website: https://www.nyiso.com/regulatory-viewer.

[4] The interconnection provisions were previously housed in the NYISO's Open Access Transmission Tariff ("OATT") Attachments P, S, X and Z. In its Order No. 2023 compliance filing, the NYISO revised and relocated these provisions in a new OATT Attachment HH.

[5] Federal Energy Regulatory Commission, Docket No. RM22-14-000, Improvements to Generator Interconnection Procedures and Agreements, Order No. 2023, 184 FERC ¶ 61,054 (July 28, 2023), at ¶¶ 38-39.

[6] NYISO, 2024 Power Trends Report, available at https://www.nyiso.com/documents/20142/2223020/2024-Power-Trends.pdf/31ec9a11-21f2-0b47-677d-f4a498a32978?t=1717677687961.

[7] According to the Lawrence Berkeley National Laboratory, the NYISO was one of four independent system operators with study times over three years. *See* Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection | Electricity Markets and Policy Group (lbl.gov); PowerPoint Presentation (lbl.gov) at slide 27.

[8] Federal Energy Regulatory Commission, Docket No. RM22-14-000, Improvements to Generator Interconnection Procedures and Agreements, Order No. 2023, 184 FERC 61,054 (July 28, 2023), at 38-39.

[9] *See* Smith, Zachary G. "A new class year: the changing nature of power generation in New York State, and how NYISO is accommodating it," Power Grid International, February 17, 2020, available at https://www.power-grid.com/solar/a-new-class-year-the-changing-nature-of-power-generation-in-new-york-state-and-how-nyiso-is-accommodating- it/?source=email#gref.

[10] *See* Improvements to Generator Interconnection Procs. & Agreements, Reply Comments of the New York Independent System Operator, Inc., Docket No. RM22-14-000 at 2 (Dec. 14, 2022).

[11] FERC Order No. 2023. FERC affirmed its interconnection reforms in Order No. 2023-A, including its stance on the treatment of network upgrades, allocation of upgrade costs, and the cluster study process, emphasizing a proportional impact method for network upgrades cost allocation, and denying requests to revise or eliminate feasibility studies from the interconnection process. FERC reaffirmed that it will impose penalties for late studies, including on ISOs/RTOs, after initial implementation, starting at $1,000 per study per day and increasing to $2,000 per study per day.

[12] NYISO Interconnection Queue, July 9, 2024, at line 284.

[13] NYISO's new standard interconnection procedures are consolidated in a new section HH of its Open Access Transmission Tarff, available at: https://www.nyiso.com/regulatory-viewer.

[14] NYISO Compliance Filing, at 4.

[1] PAL § 1005(27-a)(e)(ii)(F).

[2] PAL § 1005(27-a)(e)(ii)(A) (citing to PAL § 1005(27-a)(d)).

[3] The NYISO's interconnection processes are regulated by FERC and are set forth in tariffs approved by FERC and posted on the NYISO's website: https://www.nyiso.com/regulatory-viewer.

[4] The interconnection provisions were previously housed in the NYISO's Open Access Transmission Tariff ("OATT") Attachments P, S, X and Z. In its Order No. 2023 compliance filing, the NYISO revised and relocated these provisions in a new OATT Attachment HH.

[5] Federal Energy Regulatory Commission, Docket No. RM22-14-000, Improvements to Generator Interconnection Procedures and Agreements, Order No. 2023, 184 FERC ¶ 61,054 (July 28, 2023), at ¶¶ 38-39.

[6] NYISO, 2024 Power Trends Report, available at https://www.nyiso.com/documents/20142/2223020/2024-Power-Trends.pdf/31ec9a11-21f2-0b47-677d-f4a498a32978?t=1717677687961.

[7] According to the Lawrence Berkeley National Laboratory, the NYISO was one of four independent system operators with study times over three years. *See* Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection | Electricity Markets and Policy Group (lbl.gov); PowerPoint Presentation (lbl.gov) at slide 27.

[8] Federal Energy Regulatory Commission, Docket No. RM22-14-000, Improvements to Generator Interconnection Procedures and Agreements, Order No. 2023, 184 FERC 61,054 (July 28, 2023), at 38-39.

[9] *See* Smith, Zachary G. "A new class year: the changing nature of power generation in New York State, and how NYISO is accommodating it," Power Grid International, February 17, 2020, available at https://www.power-grid.com/solar/a-new-class-year-the-changing-nature-of-power-generation-in-new-york-state-and-how-nyiso-is-accommodating- it/?source=email#gref.

[10] *See* Improvements to Generator Interconnection Procs. & Agreements, Reply Comments of the New York Independent System Operator, Inc., Docket No. RM22-14-000 at 2 (Dec. 14, 2022).

[11] FERC Order No. 2023. FERC affirmed its interconnection reforms in Order No. 2023-A, including its stance on the treatment of network upgrades, allocation of upgrade costs, and the cluster study process, emphasizing a proportional impact method for

network upgrades cost allocation, and denying requests to revise or eliminate feasibility studies from the interconnection process. FERC reaffirmed that it will impose penalties for late studies, including on ISOs/RTOs, after initial implementation, starting at $1,000 per study per day and increasing to $2,000 per study per day.

[12] NYISO Interconnection Queue, July __, 2024, at line 284.

[13] NYISO's new standard interconnection procedures are consolidated in a new section HH of its Open Access Transmission Tarff, available at: https://www.nyiso.com/regulatory-viewer

[14] NYISO Compliance Filing, at 4.

6.4 Appendix D- 2023 Conferral Report

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 2023

(Published November 2023)

NEW YORK STATE | NY Power Authority | Canal Corporation

TABLE OF CONTENTS

INTRODUCTION

The 2023-24 Enacted State Budget ("2023-24 State Budget") amended the Public Authorities Law ("PAL") to require the New York Power Authority ("NYPA" or the "Power Authority"), beginning in 2025, and biennially thereafter, to develop and publish a strategic plan that identifies, among other things, NYPA's renewable energy generating priorities for the two-year period covered by the strategic plan.[33] To help inform NYPA's development of its strategic plans, PAL § 1005(27-a)(d), added to the Power Authority Act through Part QQ of Chapter 56 of the Laws of 2023, instructs NYPA to confer annually with stakeholders to solicit their views on, among other things, the State's progress on meeting the renewable energy goals of the CLCPA.[34]

The Power Authority is making this Conferral Report available to the public in accordance with PAL § 1005(27-a)(d) which provides:

> *No later than one hundred eighty days after the effective date of this subdivision, and annually thereafter, the authority shall confer with the New York state energy research and development authority, the office of renewable energy siting, the department of public service, climate and resiliency experts, labor organizations, and environmental justice and community organizations concerning the state's progress on meeting the renewable energy goals established by the climate leadership and community protection act. When exercising the authority provided for in paragraph (a) of this subdivision, 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. Any conferral provided for in this paragraph shall include consideration of the timing of projects in the interconnection queue of the federally designated electric bulk system operator for New York state, considering both capacity factors or planned projects and the interconnection queue's historical completion rate. A report on the information developed through such conferral shall be published and made accessible on the website of the authority.*

This Conferral Report satisfies the above-referenced requirement, provides background into the conferral process, summarizes the viewpoints of the conferees, and provides the Power Authority's observations on the 2023 conferral process.

The Power Authority will conduct a conferral process annually, and report information collected through each conferral process, as required by PAL § 1005(27-a)(d).

In addition, as required by PAL § 1005(27-a)(e), the Power Authority will make a draft of the biennial strategic plan, and periodic updates, available for public comment before finalization, providing additional opportunities for public input on the matters discussed therein.

[33] PAL § 1005(27-a)(e).
[34] PAL § 1005(27-a)(d).

BACKGROUND

Enacted in 2019, the Climate Leadership and Community Protection Act ("CLCPA" or "Climate Act") establishes pioneering objectives and requirements aimed at addressing climate change and guiding the State towards a sustainable, clean energy-based economy.[35] The CLCPA codified several targets, enhanced through executive action by Governor Kathy Hochul,[36] intended to reduce greenhouse gas emissions and facilitate integration of new renewable resources and energy storage into New York's electric grid, notably:

- Generate 70% renewable energy on the grid by 2030, and a 100% zero emission electric system by 2040.
- Install 6,000 megawatts ("MW") of solar capacity by 2025. Governor Hochul has established a more ambitious target of 10,000 MW of solar capacity by 2030.[37]
- Integrate 3,000 MW of energy storage capacity by 2030. Governor Hochul has established an even more ambitious target of 6,000 MW by 2030.[38]
- Build 9,000 MW of offshore wind generation by 2035.

The 2023-24 State Budget includes amendments to the Power Authority Act (Title 1 of Article 5 of the PAL) giving NYPA new authority to, among other things, 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 to: (1) support the State's renewable energy goals established in the CLCPA; (2) provide or maintain an adequate and reliable supply of electric power and energy in the State, including but not limited to, high need areas and communities served by small natural gas power plants as defined in this section; and (3) support the newly-authorized Renewable Energy Access and Community Help ("REACH") Program for the purpose of providing bill credits to low-income and moderate-income ratepayers in Disadvantaged Communities.[39]

In connection with this expanded authority, NYPA must, beginning in 2025, and biennially thereafter, develop and publish a renewable energy generation strategic plan that identifies, among other things, the State's progress towards achieving the CLCPA's renewable energy goals and renewable energy generating priorities for the two-year period covered by the strategic plan.[40]

To help inform NYPA's development of its biennial strategic plans, PAL § 1005(27-a)(d) instructs NYPA to confer annually with stakeholders to solicit their views on the State's progress on meeting the renewable energy goals of the CLCPA. PAL § 1005(27-a)(d) further directs that

[35] Chapter 106 of the Laws of 2019.

[36] On September 20, 2021, Governor Hochul announced on the first day of Climate Week the expansion of the NY-Sun program to achieve at least 10,000 MW of distributed solar installation by 2030. The Public Service Commission ("PSC" or "Commission") adopted this goal in a subsequent order.

[37] On September 20, 2021, Governor Hochul announced on the first day of Climate Week the expansion of the NY-Sun program to achieve at least 10,000 MW of distributed solar installation by 2030. The PSC adopted this goal in a subsequent order.

[38] The CLCPA provided for 3,000 MW of energy storage by 2030. On January 5, 2022, Governor Hochul announced in her State of the State address an intention to double the State's energy storage from the legislated 3,000 MW to 6,000 MW of storage by 2030. The PSC adopted this goal in New York's 6 gigawatt ("GW") Energy Storage Roadmap.

[39] Part QQ of Chapter 56 of the Laws of 2023. PAL §§ 1005(27-a)-(27-d); *see also* Public Service Law ("PSL") § 66-p.

[40] PAL § 1005(27-a)(e).

the conferral process consider the timing of projects in the interconnection queue administered by the New York Independent System Operator ("NYISO"), the capacity factors of such projects, and the historical completion rate of such projects in the NYISO interconnection queue. The statute directs NYPA to publish a report on the information developed through this conferral process on NYPA's website. As required by PAL § 1005(27-a)(d), NYPA completed the initial conferral process called for by the statute on or about November 1, 2023, and published this Conferral Report on the NYPA website.

CLIMATE ACT PROGRESS

In preparation for conferrals with individual stakeholders, and to report on Climate Act progress, NYPA met with key New York State energy regulatory entities, including the Department of Public Service ("DPS"), the New York State Energy Research and Development Authority ("NYSERDA"), and the Office of Renewable Energy Siting ("ORES") to collect information on the State's progress on meeting the CLCPA goals. NYPA also reviewed and synthesized information contained in public documents issued by DPS, the PSC and NYSERDA referenced herein. Through information provided by or resulting from the efforts of NYSERDA, DPS, ORES, and the PSC, the following provides a current snapshot of the State's progress in meeting the renewable energy goals of the CLCPA.

New York is transitioning to an electricity system powered by renewable energy sources such as wind, solar, and hydropower. This accelerated renewable energy development is guided by the goals of the CLCPA, which are summarized in the Background section of this Conferral Report.

When considering progress to date on achieving the goals in the CLCPA, it is important to understand that the contracted portfolio of renewable energy projects is in a persistent state of flux. The progress summarized below is a static snapshot as of the date of this Conferral Report and is subject to continuing fluctuation as existing contracted projects are completed and enter into operation on the power system, are delayed, or are withdrawn, and as new projects are added, or as previously withdrawn projects revive and are added anew. Changing economic, supply chain, permitting and electric system conditions create a dynamic environment for projecting progress with renewable energy goals of the CLCPA. For example, the Commission recently denied petitions requesting additional financial relief to offshore and onshore renewable energy generation projects that were previously awarded contracts by NYSERDA.[41] This denial may lead some projects to withdraw from their current contractual commitments. To mitigate the impact of these potential withdrawals, as discussed below, NYSERDA plans to issue a new accelerated solicitation for renewable resources, providing new opportunities for existing awarded and contracted projects that may withdraw and for new project proposals.[42]

Moreover, in October 2023, Governor Hochul announced the release of a 10-Point Action Plan ("Action Plan"), produced by NYSERDA, to expand and support the growing large-scale renewable energy industry in New York, reaffirming the State's commitment to achieving the

[41] Case 15-E-0302, et al., Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Denying Petitions Seeking to Amend Contracts with Renewable Energy Projects (October 12, 2023).

[42] *New York State's 10-Point Action Plan to Expand a Thriving Large-Scale Renewable Industry,* NYSERDA, October 2023. https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Offshore-Wind/10-point-plan.pdf

Climate Act goals.[43] Included within the Action Plan is a directive to NYSERDA to launch accelerated procurements to backfill any contracted land-based or offshore projects contracts that are terminated. The accelerated procurement process will simplify bid requirements and incorporate inflation indexing to promote more durable project economics and promote critical labor protections. This Action Plan reinforces New York State's leadership and dedication to timely clean energy development, sustainability, and economic growth, and will advance the State's progress towards achieving the goals of the CLCPA.

To advance this accelerated procurement process, on October 26, 2023, NYSERDA released two Requests for Information to take in industry feedback on how to best accelerate the procurement of both offshore wind and new land-based renewables, such as onshore wind, hydro, and solar.[44] On November 17, 2023, Governor Kathy Hochul announced that these expedited solicitations will be released by NYSERDA on November 30, 2023, with bids due in January 2024.[45] Therefore, although it is possible that the number of currently-contracted renewable projects could decrease in the near future, and some level of attrition can be expected regardless of the Commission's decision to deny additional financial relief to previously-contracted projects, any withdrawn projects will have new and timely opportunities to secure new contracts with NYSERDA with updated competitive pricing, keeping New York on track to meet the ambitious goals of the CLCPA.

70% Renewables by 2030. As of the date of this Conferral Report, New York has enough operating, contracted, and under-development renewable energy projects to supply 79% of the State's 2030 electricity needs with renewable energy.[46] In 2021, roughly 27% of the electricity consumed in New York came from renewable sources, with 84% of this from hydroelectric generation.[47] NYPA's renewable hydroelectric power comprises approximately 20% of New York State's electric energy consumption. As of January 2023, the State had a pipeline of contracted and awarded large-scale renewable energy generation projects ("large-scale projects"), representing roughly 62,000 annual gigawatt-hours ("GWh"), or an additional ~39%.[48] The most recent NYSERDA awards include three offshore wind and 22 land-based projects totaling 6.4 GW of capacity, which when built will provide roughly 12% of New York's electricity needs in 2030.[49] These recent land-based large-scale renewable awards are comprised of 14 new solar projects, six wind repowering projects, one new wind project, and one return-to-service hydroelectric project, totaling a combined 2,410 MWs.

6,000 MW of solar capacity by 2025 and 10,000 MW by 2030. On April 14, 2022, the Commission expanded the installation target of the NY-Sun program from 6,000 MW to 10,000

---

[43] *New York State's 10-Point Action Plan to Expand a Thriving Large-Scale Renewable Industry,* NYSERDA, October 2023. https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Offshore-Wind/10-point-plan.pdf

[44] *See* ORECRFI23-1 and RESRFI23-1, available at https://portal.nyserda.ny.gov/servlet/servlet.FileDownload?file=00P8z000003L77AEAS and https://portal.nyserda.ny.gov/servlet/servlet.FileDownload?file=00P8z000003L6kwEAC.

[45] Per New York State website at https://www.governor.ny.gov/news/governor-hochul-announces-progress-renewable-energy-solicitations-part-10-point-action-plan

[46] Per New York State website at https://www.governor.ny.gov/news/governor-hochul-announces-nations-largest-ever-state-investment-renewable-energy-moving

[47] *Clean Energy Standard Annual Progress Report: 2021 Compliance Year, Final Report.* NYSERDA, January 2023.

[48] *First Annual Informational Report on Overall Implementation of the Climate Leadership and Community Protection Act.* New York State Department of Public Service (July 2023).

[49] Per New York State website at https://www.governor.ny.gov/news/governor-hochul-announces-nations-largest-ever-state-investment-renewable-energy-moving

MW of distributed solar generation projects.[50] On June 23, 2023, the Commission directed NYSERDA to file a report, no later than January 5, 2024, detailing the incremental distributed solar capacity beyond the 10,000 MW goal that could be procured within the existing budget authorized for the NY-Sun program.[51] As of the date of this Conferral Report, New York State has 5,037 MW of distributed solar energy generation in operation, and an additional 3,242 MW in the NY-Sun development pipeline. These totals include recent awards from the NY-Sun and Solar for All initiatives. For example, in 2022, NYSERDA awarded 745.5 MW of projects under the NY-Sun initiative. In October 2022, NYSERDA and National Grid announced awards to 21 projects totaling 121.4 MW under the Expanded Solar for All program,[52] and in October 2023 issued a Request for Proposals to procure an additional 178.6 MW for Expanded Solar for All.

6,000 MW of energy storage capacity by 2030. As of the date of this Conferral Report, New York State has 324 MW of energy storage in operation and 899 MW in the pipeline, for a total of 1,223 MW. This 1,223 MW of operational, contracted and awarded energy storage represents 41% of the 3,000 MW CLCPA goal and 20% of the 6,000 MW 2030 energy storage target. Approximately 12,000 MW of proposed energy storage projects are in either distribution-level or wholesale-level NYISO interconnection queues in New York.[53] On December 28, 2022, DPS and NYSERDA filed "New York's 6 GW Energy Storage Roadmap: Policy Options for Continued Growth in Energy Storage" with the Commission, recommending new programs be developed for bulk, retail, and residential storage projects across the State.[54]

9,000 MW of offshore wind generation by 2035. As of the date of this Conferral Report, New York State has awarded 8,392 MW of offshore wind generation. Most recently, in October 2023, New York announced that a trio of offshore wind projects with a combined capacity of more than 4 GW had been awarded conditional contracts in NYSERDA's latest solicitation. These projects include Attentive Energy One (1,404 MW) developed by TotalEnergies, Rise Light & Power and Corio Generation; Community Offshore Wind (1,314 MW) developed by RWE Offshore Renewables and National Grid Ventures; and Excelsior Wind (1,314 MW) developed by Vineyard Offshore (Copenhagen Infrastructure Partners).[55]

NYISO GENERATOR INTERCONNECTION

NYPA conferred with the New York Independent System Operator ("NYISO") to relate the NYISO generator interconnection process to the State's progress on meeting the renewable energy goals established by the CLCPA. NYPA also discussed with the NYISO the timing of projects in the NYISO's interconnection queue, considering both capacity factors of planned projects and the interconnection queue's historical completion rate. NYPA also analyzed numerous public documents to gather additional information about these matters.

---

[50] Case 21-E-0629, et al., Advancement of Distributed Solar, Order Expanding NY-Sun Program (April 14, 2022).

[51] Case 21-E-0629, In the Matter of Advancement of Distributed Solar, Order Adopting NY-Sun Midpoint Modifications (June 23, 2023).

[52] Per New York State Website https://www.nyserda.ny.gov/About/Newsroom/2022-Announcements/2022-10-17-NYSERDA-and-National-Grid-Announce-Round-1-Results

[53] Case 22-M-0149, Proceeding on Motion of the Commission Assessing Implementation of and Compliance with the Requirements and Targets of the Climate Leadership and Community Protection Act, New York State Department of Public Service First Annual Informational report on Overall Implementation of the Climate Leadership and Community Protection Act (July 20, 2023).

[54] Case 18-E-0130, In the Matter of Energy Storage Deployment Program, New York's 6 GW Energy Storage Roadmap: Policy Options for Continued Growth in Energy Storage (December 18, 2022).

[55] "New York backs offshore wind big time: Hochul agrees largest US procurement," by David Foxwell, Riviera, October 24, 2023.

Background

The NYISO, operating under the oversight of the Federal Energy Regulatory Commission ("FERC"), administers interconnection of new generation to ensure that electric system resources (e.g., generation, storage) are supported by the infrastructure necessary to transmit the generated and stored electricity and support reliable operation of the State's electric grid. The process interconnects resources in a manner that meets minimum interconnection standards that are established by reliability standards organizations and at the least cost.[56]

The NYISO's interconnection processes are regulated by FERC and are set forth in tariffs that are approved by FERC, primarily in the NYISO's Open Access Transmission Tariff ("OATT") Attachments P, S, X and Z. Generators that seek to interconnect to the transmission system in New York State and to make wholesale sales of electricity must receive approval and an interconnection agreement signed by the NYISO and the connecting transmission owner. Proposed large generators (greater than 20 MW), including storage and loads, interconnect to the NYISO through the Large Facility Interconnection Process. Small generators (20 MW or less) have their own interconnection process under the FERC tariff, which is somewhat less involved. Generators sized up to and including 5 MW, and that do not involve federal-jurisdictional transmission or wholesale electricity sales, interconnect to the power system under PSC procedures, which are not part of the NYISO's interconnection queue.

NYISO's Interconnection Process

Proposed generation projects are currently processed by the NYISO according to a first-come, first-served process. Developers who submit a complete application to the NYISO have their generation projects placed in an interconnection queue. The interconnection processes utilize a series of increasing specific studies: (1) Feasibility Studies, (2) System Impact Studies or System Reliability Impact Studies, and (3) Facilities Studies, which analyze projects together in a Class Year study for a group of projects.The study processes require the cooperation of the project developers, the NYISO, the connecting transmission owner, affected transmission owners, affected system operators outside New York, and other stakeholders. At the conclusion of the studies, developers will know their interconnection facilities and costs. If they choose to proceed, developers post collateral to cover their interconnection costs, and sign an interconnection agreement with the NYISO and the Connecting Transmission Owner.[57]

Historical Completion Rate of the NYISO Interconnection Queue

The surge in proposed renewable resource and transmission projects together has created a significant backlog in the interconnection of renewable generation projects to the New York transmission system. Some delays are caused by developers themselves. For example, developers may fail to provide the NYISO necessary data to study proposed projects, or may fail to achieve required regulatory milestones in permitting processes connected to their interconnection requests.

[56] The NYISO's interconnection processes are regulated by FERC and are set forth in tariffs approved by FERC and posted on the NYISO's website: https://www.nyiso.com/regulatory-viewer - primarily in the OATT Attachments P, S, X and Z.

[57] Federal Energy Regulatory Commission, Docket No. RM22-14-000, Improvements to Generator Interconnection Procedures and Agreements, Order No. 2023, 184 FERC ¶ 61,054 (July 28, 2023), at ¶¶ 38-39.

In 2018, the NYISO interconnection queue contained approximately 120 projects. As of July 2023, 467 active projects were under evaluation in NYISO's interconnection queue.[58] Based on 2022 data, the median time to complete the NYISO interconnection study process and execute an interconnection agreement was three to four years.[59] Processing time in the interconnection process varies among projects and is impacted by a number of factors. Developers have the flexibility to make certain elections under the current NYISO process that may extend the timeline for the study process. For example, developers often propose modifications to their projects during the interconnection study process. Developers can also choose to wait in the queue for months or years before they enter the final required interconnection study. In early 2023, the NYISO completed the grouped interconnection study process, known as the Class Year, for over 50 proposed projects, consisting of over 7,000 MWs of renewable energy generating projects, including two offshore wind farms.[60] The NYISO is currently studying a group of over 80 proposed projects, consisting of 12,000 MWs of renewable energy.

The group of projects under review consists predominately of wind and solar, which will have capacity factors determined by the number of hours a generator is expected to produce energy over a year compared to its nameplate capability. Currently, according to NYISO's Installed Capacity Manual, land-based wind has an unforced capacity percentage of 16% in the summer and 34% in the winter, offshore wind has an unforced capacity percentage of 35% in the summer and 53-54% in the winter, and solar has unforced capacity percentages that range between zero and two percent in the winter and 26 and 46% in the summer.[61]

The NYISO will implement a new capacity accreditation methodology for all generators starting with the May to October 2024 summer capability period. This new method is intended to reflect the reliability contributions to system resource adequacy from the growing diversity of resource types that may be intermittent, limited duration, or fuel constrained. This method will also capture the interdependencies among these diverse resource types that occur as the relative proportions of each change within the generation fleet as public policy is implemented over time. Capacity accreditation factors will be calculated for each type of generation. These values are used to objectively determine the reliability contribution of each resource class, and therefore, the amount of unforced capacity that a generator of that type can sell in the NYISO's capacity markets.[62]

The NYISO estimates that the class year study of these projects will be completed in 2024. Developers can decide whether to move forward with their projects after the interconnection studies are completed. Generation interconnection delay is a national phenomenon and is not unique to New York. In its recent interconnection reform order, Order No. 2023 (summarized below), the FERC found that:

---

[58] NYISO, Fact Sheet: Integrating NY's Clean Energy Resources, available at https://www.nyiso.com/documents/20142/35688159/Interconnection-Process-Fact-Sheet.pdf/255e4a40-34a2-ffdc-3121-7fce2279b4b6.

[59] According to the Lawrence Berkeley National Laboratory, the NYISO was one of four independent system operators with study times over three years. *See* Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection | Electricity Markets and Policy Group (lbl.gov); PowerPoint Presentation (lbl.gov) at slide 27.

[60] New York State Office of the Comptroller, Renewable Electricity in New York State; Review and Prospects (August 2023), at 13, available at: https://www.osc.state.ny.us/files/reports/pdf/renewable-electricity-in-nys.pdf.

[61] *See* NYISO Installed Capacity Manual issued April 27, 2023, available at: https://www.nyiso.com/documents/20142/2923301/icap_mnl.pdf

[62] *See* 179 FERC 61,102, Order Accepting Tariff Revisions Subject to Condition, Docket No. ER22-772-001 (May 10, 2022).

As of the end of 2022, there were over 10,000 active interconnection requests in interconnection queues throughout the United States, representing over 2,000 GW of potential generation and storage capacity. This potential generation is the largest interconnection queue size on record, more than four times the total volume (in GW) of the interconnection queues in 2010, and a 40% increase over the interconnection queue size from just the year prior. These trends are not exclusive to any one region of the country. Instead, every single region has faced an increase in both interconnection queue size and the length of time interconnection customers are spending in the interconnection queue prior to commercial operation in recent years. Interconnection customers are waiting longer in the interconnection queues nationwide.[63]

NYISO Interconnection Process Reforms Thus Far

Notably, the NYISO has made some changes to speed up interconnection reviews. These include eliminating certain duplicative study requirements, allowing some projects needing additional study to do so outside the class year process so as not to slow down review of other projects, and lowering milestone permitting requirements that must be completed to proceed through the process. Completed in 2023, the Class Year 2019 group of projects seeking to connect to New York's electric grid contained over 8,000 MW of nameplate capacity, consisting of 38 solar projects totaling 1,738 MW, 12 wind projects totaling 3,108 MW and 26 energy storage projects totaling 1,069 MW.[64]

The NYISO has stated that further reforming its interconnection processes consistent with maintaining electricity system reliability is its highest priority. To address the significant surge in proposed interconnections as part of the historic transition that is underway on the electric grid, the NYISO initiated a comprehensive interconnection queue reform initiative with its stakeholders in late 2022.[65] This initiative is ongoing, and the NYISO has indicated that its reforms under development will be further enhanced by many of the process enhancements adopted in FERC Order No. 2023.

FERC's 2023 Interconnection Reform Order

In the midst of this effort, on July 28, 2023, FERC issued a landmark order on reforming the generator interconnection process nationwide. These include changes to weed out projects that are not viable and holding up the interconnection process. Entitled "Improvements to Generator Interconnection Procedures and Agreements" (Order No. 2023), FERC describes its reforms as primarily falling into three categories:

1) First-Ready, First-Served Cluster Study Process:
    - Amends the process from a first-come first-served individual project queue and study regime to a first-ready first-served cluster study process that is designed to move generators that are ready to proceed more quickly through interconnection.

---

[63] Federal Energy Regulatory Commission, Docket No. RM22-14-000, Improvements to Generator Interconnection Procedures and Agreements, Order No. 2023, 184 FERC 61,054 (July 28, 2023), at 38-39.

[64] *See* Smith, Zachary G. "A new class year: the changing nature of power generation in New York State, and how NYISO is accommodating it," Power Grid International, February 17, 2020, available at https://www.power-grid.com/solar/a-new-class-year-the-changing-nature-of-power-generation-in-new-york-state-and-how-nyiso-is-accommodating- it/?source=email#gref.

[65] *See* Improvements to Generator Interconnection Procs. & Agreements, Reply Comments of the New York Independent System Operator, Inc., Docket No. RM22-14-000 at 2 (Dec. 14, 2022).

- Sets strict timeframes for completion of studies.
- Establishes project readiness, site control, and financial commitment requirements for generators to participate in a cluster study that groups analysis of interconnection of those generators together, with limited opportunities to make project changes.
- Increases developers' study deposits and makes them non-refundable.
- Requires more publicly available interconnection information, including a "heatmap" to provide "an interactive visual representation of available interconnection capacity" so developers can identify fruitful points of interconnection for their generation projects.

2) Reforms to increase the speed of interconnection queue processing by independent system operators and other transmission providers:
   - Penalizes developers that withdraw from cluster studies, with increasing levels the later in the process a developer withdraws.
   - Eliminates the "reasonable efforts" standard that excused late studies and delays in the interconnection process.
   - Penalizes the NYISO and connecting transmission owners for late studies, beginning after a few cycles of the cluster study process, with the ability to appeal penalties to FERC.

3) Reforms to Incorporate Technical Advancements in the Interconnection Process:
   - Requires transmission providers to use operating assumptions in interconnection studies that reflect the proposed charging behavior of electric storage resources.
   - Requires transmission providers to evaluate alternative transmission technologies in its cluster studies (*e.g.*, advanced power flow control devices).
   - Establishes modeling and performance standards for non-synchronous generating facilities.

The NYISO has been drafting revisions to its tariffs and procedures to implement the process changes in Order No. 2023. Stakeholders are reviewing NYISO's proposals in public meetings, On October 25, FERC extended the deadline for compliance filings to April 3, 2024. The NYISO has stated that it intends to file a partial compliance filing before that date to end certain study processes that will be superseded by its new interconnection procedures under Order No. 2023.

STAKEHOLDER CONFERRAL

NYPA's Approach to the 2023 Conferral Process

As part of the initial 2023 conferral process, NYPA conducted conferral discussions with approximately 50 stakeholder organizations from across the State. A list of stakeholders who participated in the conferral process is attached to this Report as Appendix A.

These discussions were conducted in-person and virtually. Stakeholders were also given the opportunity to submit public statements or other materials as part of the conferral process, with the option to submit them electronically via a special NYPA conferral email address established for this purpose: NYPARenewablesConferral@nypa.gov. As of the date of this Conferral Report, the Power Authority received written comments or submissions from 11 of the stakeholders. Copies of these submissions have been made available on NYPA's website. Since these comments are readily accessible, they are not included in the summary of comments received during NYPA's meetings with conferees.

This section of the Conferral Report summarizes the viewpoints of participating stakeholders. It is not intended to be a comprehensive, exhaustive, detailed enumeration of all comments submitted in this process, nor is this summary intended to reflect NYPA's valuation of any comments received. Although stakeholders provided information on a wide variety of topics, the summary of their viewpoints contained herein focuses primarily on those topics discussed or addressed that are germane to the conferral process topics.

Conferral process topics of discussion included, but were not limited to, the following areas of discussion, as time and interest permitted:

1. Discussion of State's progress on meeting the CLCPA goals, including opportunities, challenges, suggestions, and recommendations;
2. Discussion of NYPA's newly established renewable energy generation authority, including potential project technologies, locations, characteristics, recommendations and requirements; and
3. Discussion of the NYISO interconnection process and queue, including recommendations and suggestions for avoiding delays in the process moving forward.

Although the statute does not require this, NYPA also invited commentary on the issue of training and workforce development, including recommendations for creating clean energy jobs, workforce training and re-training programs, and maximizing opportunities for members of disadvantaged communities.

This first conferral process (2023) is just the beginning of many stakeholder and public engagement opportunities between the Power Authority and interested members of the public under the 2023 Enactment. The Power Authority will conduct further public and stakeholder engagement in formulating its strategic plans, starting in 2024. Each year, and as we progress, the Power Authority will solicit views of interested parties to make sure its work to bring more renewables to New Yorkers is well-informed, effective and transparent.

Summary of Conferral Process Comments

Stakeholder feedback from the conferral process is set forth below, with each participating stakeholder being placed into a relevant interest category, such as "Municipalities" or "Generator Interests." Where possible, similar stakeholder feedback from multiple entities was harmonized into thematic issues of discussion. Some conferees expressed a preference not to be identified with specific comments, and these preferences are reflected below.

Agriculture

NYPA conferred with the New York Farm Bureau ("Farm Bureau") and the New York State Department of Agriculture and Markets ("Ag and Markets") to gain perspectives on agricultural issues related to renewable energy development.

Stakeholders pointed out that New York is home to more than 26,000 farms, with nearly 6.5 million farmed acres, in 154 different agricultural districts, making the sector an important stakeholder in the State's energy transition. Farmers depend on the environment and its health for their livelihood, and therefore, view themselves as part of the solution to climate change.

One stakeholder indicated that protecting agricultural farmland is one of its biggest priorities in the renewables space. Agrivoltaics and solar panels are also significant issues, and one stakeholder is interested in pilot studies regarding co-locating solar with farm animals and crops.

Anaerobic digesters are of great interest to agricultural market, but currently are cost prohibitive. Farms are partnering to share a singular anaerobic digester.

Farmers have concerns regarding electrification of most farm equipment such as tractors, and transmission development to the extent it interferes with the use of private property.

One stakeholder supported hydroelectric power, biofuel,[66] and alternative energies and believes more research and funding should be devoted to these sources. Some agricultural businesses include solar panels as a value-added income.

A representative indicated that workforce training to instruct farmers and farm labor on how to safely use electrical equipment is needed.

Farmers need the environment, and therefore they need to be part of the solution to climate change. Some agricultural representatives include solar panels as a value-added income.

Ag and Markets is committed to working to minimize the impact of renewable generation assets on farmers and farming communities. It related that agriculture can have a large positive influence on the renewable energy process (capturing methane to produce electricity, methane digesters, etc.). Ag and Markets stated that it would like to explore entering into a cooperative agreement with NYPA to address these and other opportunities to promote farm-friendly renewable projects and programs.

[66] Note that the definition of "Renewable Energy Systems" under PSL § 66-p(b) does not include biofuel generation, and as such, biofuel generation is ineligible to contribute toward the achievement of the renewable energy goals of the CLCPA. On May 18, 2023, the Commission initiated a proceeding to initiate the process of transitioning to a zero-emissions electric system by 2040. One of the objectives of this proceeding is to determine what types of generation technology, including biofuels or bioenergy, will qualify as a zero-emissions technology. *See* Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Initiating Process Regarding Zero-Emissions Target (May 18, 2023).

Colleges and Universities

NYPA conferred with institutions, ranging from community colleges to universities, including New York Community Colleges Energy Equity Forum, Cornell University (Atkinson Center for Sustainability, Department of Ecology & Environmental Biology, and School of Industrial and Labor Relations), State University of New York ("SUNY") Maritime College, and SUNY University at Buffalo.

Comments from organizations representing New York institutions of higher education ("Institutions") include the following:

Some Institutions believe that New York State needs to provide more support and funding to achieve CLCPA goals and should collaborate with other east coast states to expand and support transmission and wind energy projects. To meet CLCPA targets, some Institutions suggested that New York should increase its offshore wind target to at least 20 GWs. Some Institutions pointed out that communities are concerned that renewable energy projects will be challenged by supply chain disruptions, increasing costs and a changing political landscape.

Institutions emphasized that the future energy mix for New York State must be varied. In addition to renewables, the system should include nuclear energy, additional transmission infrastructure, more energy storage including use of pump storage, thermal energy storage and liquid metals storage. Some Institutions said that NYPA should increase it infrastructure investment in transmission to support the new renewable energy resources.

One Institution said that NYPA is poised to play a central role in developing new renewable generation because it has played a central role in in developing New York State hydroelectric power as well as transmission, and has strong connections with the wind and manufacturing sectors. Another Institution stated that the Power Authority has had a strong role in the rollout of solar in public schools and building that NYPA can scale up. It stated that NYPA as a public entity can move in a direction where energy is a public good, that NYPA can provide solar projects to schools and public entities efficiently, and that there will be benefit to the State in reducing total costs. Some Institutions commented that NYPA is well positioned to be helpful to disadvantaged communities as a public authority with strong business skills and a well-rounded organization. Other Institutions stated that NYPA is well positioned to bring its business model into workforce development.

The Institutions consulted are focusing on research to drive policy changes, changes in corporate practices, and labor consequences around the energy transition. The Institutions stated that they are committed to workforce development, including jobs that are being phased out, opportunities for worker, ensuring jobs are high-quality, sustainable and high-wage, with labor and equity standards and workforce infrastructure standards. Some Institutions said that offshore wind has the best potential to produce renewable energy while also producing high-quality jobs.

One college commented on the potential for NYPA to push renewable energy initiatives forward. It stated that the college can act as platform for engaging with local communities and students to further renewable energy projects. The college emphasized that offshore wind is of great interest to it, especially for workforce development.

The New York Community Colleges Energy Equity Consortium (NYCCEE) emphasized that to meet CLCPA goals, efforts will need to focus on converting the current workforce to work in

renewable resource development. It stated that challenges include decreased enrollment and that policy discussions on climate change are not occurring at trade schools. NYCCEE said that it focuses on four areas in workforce training; offshore wind, solar, advanced manufacturing and building electrification.

One commenter stated that the NYISO's interconnection process should reorganize the queue to allow smaller projects to be treated differently.

Community Organizations and Environmental Justice Advocates

NYPA conferred with numerous organizations representing local and disadvantaged community interests and environmental justice interests ("Community" or "EJ" representatives), including Bronx Council for Environmental Quality, El Puente, Coalition of Attorneys Representing Municipalities and Citizens in New York State Wind and Solar Project Siting Proceedings, Harlem River Working Group, New York City Environmental Justice Alliance, NY Renews, PEAK Coalition, PUSH Buffalo, South Bronx Unite, Sustainable Westchester and Urban Green Council.

Community and EJ representatives generally supported the CLCPA, with a key focus on how disadvantages communities, such as the Bronx, are affected. Some groups expressed concern that there is a growing campaign against the CLCPA and that NYPA can help the State with communications in support of it. Many groups said that the State has not allocated enough resources for public education campaigns in support of the CLCPA, and that more should be done to correct misinformation surrounding the transition to renewable energy.

Community and EJ representatives generally expressed support for NYPA playing an active role in developing new renewable resources. Some representatives viewed NYPA's role as filling "gaps" where the private sector falls short or project economics do not work, while other stakeholders saw NYPA as having a broader role in adding new renewable energy resources. Stakeholders in urban areas said that NYPA has a role in distributed-solar generation especially in underserved communities. Some stakeholders favored locally-owned or controlled renewable energy resources, and said that NYPA can partner with low-income communities to become investors in renewables. They also support new thermal energy systems, but said that it is unclear how reliable it will be on a large scale. Some EJ and Community representatives said that NYPA should increase its work on energy efficiency projects in communities in conjunction with its new renewable generation authority. Several organizations also expressed interest in forming virtual power plants using decentralized solar, storage and flexible power consumers.

Many EJ and Community representatives stated that community engagement is critical to equitable implementation of the renewable energy transition and achieved the CLCPA goals. They emphasized that communities must be incorporated into discussion of new energy projects prior to their being built, as there may be negative consequences for people in local communities. Downstate EJ interests pointed out that there is a disparity in burdens experienced by New York City communities from existing and new industry, highways and energy facilities, when compared with upstate communities.

One group of upstate Community representatives focused on using nuclear power for clean energy production, and suggested that NYPA should use its new authority or seek authority to build nuclear power for clean energy. The group pointed out that when the Indian Point nuclear power plant was closed, fossil fuel production increased and decarbonization suffered. They

said that reaching 70% renewable energy may be impossible if efforts are just focused on solar and wind, and that there is a lot of resistance to solar and wind projects in upstate communities due to land use and visual impacts.

Downstate Community and EJ representatives expressed concerns at the continued operation and re-permitting of NYPA's small natural gas power plants, as also referred to as "peakers." EJ interests expressed confusion why NYPA is continuing to submit permit applications for the peaker plants, because they believe that operation of those plants contradicts the CLCPA goals and NYPA's progress towards them. Many EJ and community organizations said that NYPA should prioritize phasing out the peaker plants with a transition to a source that produces cleaner energy and decreases air pollution. One organization stated that the waterfront-based power generation cut the community off from accessing the waterfront, and that waterfront access should be restored when the peakers are closed.

Many Community and EJ representatives in New York City stated that NYPA should replace the peaker plants with battery storage and support education on the benefits of energy storage. They stated that there is a need for distributed energy storage throughout the city to support grid reliability and resiliency. Some stakeholders stated that there is a lot of misinformation about battery storage, and that NYPA can step in and develop a strategy to educate communities on the benefits and safety of stationary storage. One representative also emphasized the importance of adding more energy storage in order to integrate renewable energy.

A number of downstate Community and EJ groups said that there is a disparity in implementing solar and storage, with more solar and storage being developed upstate. They said that more solar generation is needed in New York City, and that solar is crucial so that inner city fossil fuel plants can be retired. One organization suggested that solar be added to street poles to offset the need for power plants. Some community representatives said that they support use of hydrogen combustion power plants to replace fossil fuel generation, while others oppose it. One representative opposed the use of carbon sequestration, and said that the focus of the energy transition should remain on renewable resources over combustion.

Sustainable Westchester ("SW") stated that NYPA could play a strong role in its efforts to decarbonize. It stated that most municipalities in Westchester participated in community solar projects, and that NYPA could leverage its existing Community Choice Aggregation projects on a larger scale to gather more support for renewable energy and further increase participation. SW pointed out that additional transmission projects are needed to reduce congestion on the power system, to lower related congestion costs, and to move more renewable power from upstate to downstate.

Some stakeholders said that they would like to see NYPA play more of a leadership role with respect to project siting and using its leverage with private developers. They said that private developers' perspective seems to be transactional, or profit-driven, and that the communities want to be heard and involved in project design and planning processes. They stated that NYPA should focus on building trust first, with attention to the fact that every community has different needs and priorities.

All EJ and Community groups expressed support for the Renewable Energy Access and Community Help ("REACH") program, and suggested that affordable housing units that are in the process of being electrified could be targeted specifically. They said that REACH bill credits are very important because communities have experienced large bill increases for transmission

and grid projects. Some stakeholders stated that bill credits must be distributed on an equitable basis for disadvantaged communities. Others commented that NYPA should ensure that bill credits are long-term for the life of the project.

All EJ and Community stakeholders stated strong support for workforce development and said they believe that there is a huge opportunity to provide green energy jobs for the future generation of workers. They said that NYPA can help create training centers or provide funds for workforce development. Some community and EJ representatives said that funds should be directed to establishing pre-apprenticeship programs, and that unions could work with communities to build a "pipeline" for apprenticeship programs. They pointed out that care should be taken in developing new programs in parallel with existing programs. Other representatives said that NYPA should ensure that disadvantaged communities that have been affected by peaker plants should have direct access to green energy jobs located in their communities.

Some upstate and downstate Community and EJ groups stated that the NYISO interconnection process delays projects and that NYPA can work with the NYISO to reform the interconnection queue.

Consumer Interests

NYPA conferred with organizations representing the interests of New York businesses, including Multiple Intervenors ("MI") and Power for Economic Prosperity ("PEP"). MI is an association of large industrial, commercial, and institutional energy consumers with manufacturing and other facilities located throughout New York. PEP is an association of manufacturing companies that rely on low-cost Niagara Project hydropower in order to maintain their operations in the Buffalo/Niagara region of Western New York. NYPA also conferred with the New York Energy Alliance ("NYEA"), which is a newly formed organization of several New York residents who support abundant and reliable energy and electricity for families and businesses through the advancement of nuclear energy.

These groups (collectively, "Consumer Groups") are primarily concerned with ensuring that electricity and energy remains affordable and reliable in New York as we transition to renewable and emission-free electricity. Some of the Consumer Groups expressed concern with the pace of transition required by the CLCPA, and the feasibility of meeting the goals the CLCPA in time, and the potential effects that such a rapid transition might have on affordability and reliability.

Some Consumer Groups asserted that the NYISO interconnection process causes too long a delay for projects seeking to connect and are open to efficiency reforms. Certain Consumer Groups expressed concern that intermittent resources will not have adequate capacity to serve New York's grid reliably without other backup sources, such as energy storage or gas turbines. Some Consumer Groups expressed interest in NYPA developing nuclear generation. Certain Consumer Groups noted that NYPA's hydro projects are great examples of NYPA providing tremendous value to New Yorkers and should be replicated in any efforts that emerge from the NYPA's new authority under its new renewable authority. Some Consumer Groups expressed a preference for such efforts to focus first on the retention of jobs and economic development.

Environmental and Energy Policy Advocates

NYPA conferred with a number of organizations that advocate for environmental and/or energy concerns, including Citizens Campaign for the Environment ("CCE"), Environmental Advocates of New York ("EANY"), New York League of Conservation Voters ("NYLCV"), Public Utility Law Project ("PULP"), and the Queens Climate Project (collectively, "E&E Policy Advocates").

The E&E Policy Advocates were very supportive of New York's CLCPA efforts, including efforts to advance offshore wind, onshore wind, solar (both distributed and utility-scale) and energy storage. Some E&E Policy Advocates said that they are interested in seeing the development of virtual power plants.

Some E&E Policy Advocates expressed concern with the State's ability to meet the renewable energy goals of the CLCPA, in particular the offshore wind energy goal, given the Commission's October 12, 2023, decision to deny several renewable energy developer petitions for additional financial relief to existing contracts. Some E&E Policy Advocates were supportive of NYPA developing more energy storage projects and doing more to support emissions reductions and efficiency through geothermal heating and cooling projects. They said that such projects reduce the need for added renewable generation and associated transmission as buildings are decarbonized and electrified. Some E&E Policy Advocates expressed concern with deforestation and agricultural land conversions in the State's pursuit of renewable energy and noted the need for identification of opportunities for agrivoltaics. Most E&E Policy Advocates were supportive of NYPA developing renewables to support the State's efforts to meet the renewable energy goals of the CLCPA.

The E&E Policy Advocates were supportive of New York meeting the goals of the CLCPA, but some were concerned with ensuring that electricity and energy remains affordable and reliable as we transition to renewable and emission-free electricity. In addition, these advocates stressed that new benefits to low-income consumers should be additive to existing programs and not supplant them, and as such were supportive of the REACH program established under PAL §1005(27-b). One E&E Policy Advocate suggested that NYPA facilitate power purchase agreements to reduce the cost of the energy transition on ratepayers, and also assist low-income New Yorkers with residential retrofits that only middle- and upper-class families have traditionally been able to afford. Some E&E Policy Advocates asserted that the transition to renewables has been funded solely from ratepayer funds, and other funding sources should be utilized to bring more equity to the process.

E&E Policy Advocates asserted that community outreach was critical, and some specifically noted the need for youth-focused education programs that will serve to empower younger generations to help address the climate crisis. Some E&E Policy Advocates suggested that communicating the benefits of the energy transition should be done in a way that is readily understandable and helpful to combat disinformation or misconceptions, noting that a lack of understanding among the public and/or local officials can result in project delays or opposition.

Some E&E Policy Advocates asserted that the NYISO interconnection process is too slow and is creating delays, while others noted that there are even long delays when connecting small behind-the-meter rooftop solar in certain utility districts. Some E&E Policy Advocates noted NYPA's historic success in advancing transmission projects and advocated for additional work to be done to address electrical system limitations that prevent the successful deliverability of renewable energy. Some E&E Policy Advocates asserted that disadvantaged communities

have been burdened by pollution from fossil-based energy sources, such as “peaker” facilities, which should be converted to community assets or renewable energy hubs to create health benefits and increase energy affordability.

Some E&E Policy Advocates underscored the need to ensure that New Yorkers that are currently employed in fossil fuel industries are given ample opportunity to retrain to be gainfully employed in the renewable energy or energy storage industry. Certain E&E Policy Advocates noted the need for job training to be paired with other services that allow mid-career transitions, such as childcare and transportation for low-income New Yorkers. Some E&E Policy Advocates asserted that there is not enough broad understanding amongst the general public of existing and future job opportunities in the energy transition, and more could be done to make such opportunities clear, understandable, and concrete. One E&E Policy Advocate suggested a requirement that at least 40% of the workforce needed to construct renewable generation reside in a disadvantaged community. Another E&E Policy Advocate suggested that opportunities for Minority- and Women-Owned Businesses be promoted and required and that opportunities for workforce training be targeted at all ages of the workforce and should not be limited to only technical jobs.

Generator Stakeholders

NYPA conferred with several organizations representing the interests of energy generators and developers, including independent renewable developers, the Alliance for Clean Energy New York (“ACENY”), the Independent Power Producers of New York (“IPPNY”), and the New York Offshore Wind Alliance (“NYOWA”) (collectively, “Generator Stakeholders”). ACENY and NYOWA are two renewable energy advocacy organizations with collective membership that includes a large percentage of New York’s private sector renewable energy developers. IPPNY is a trade organization representing independent renewable and non-renewable generators and developers representing a large percentage of New York’s electricity generators.

The Generator Stakeholders noted substantial progress made by the State in advancing the renewable energy goals of the CLCPA through NYSERDA’s renewable energy certificate procurement and contracting. One Generator Stakeholder suggested that NYPA should assess NYSERDA’s efforts to meet the CLCPA renewable energy goals as a part of the conferral process, and that the conferral process and strategic plan should be coordinated with and informed by the CLCPA biennial review process. Some Generator Stakeholders noted that COVID-19, inflationary pressure, and supply chain bottlenecks have placed some contracted projects into financial jeopardy.

While some Generator Stakeholders expressed a willingness to partner with NYPA in the development of renewable energy generation and/or energy storage projects, some of the Generator Stakeholders expressed concerns with NYPA developing renewable energy projects, asserting that NYPA may have an advantage over private sector renewable energy developers that may reduce competition in the New York marketplace. A Generation Stakeholder suggested that NYPA should focus on competitively procuring renewables resources and storage resources through the use of long-term power purchase agreements, rather than NYPA developing and owning those resources. It also made the assertion that NYPA’s development of renewable energy would subject NYPA customers to costs and risks currently borne solely by renewable energy companies and storage companies.

Some of the Generator Stakeholders suggested that NYPA focus on continuing to develop transmission solutions to relieve renewable congestion and curtailment. One Generator Stakeholder expressed interest in repurposing "peaker" stations to support the integration of new renewable energy into the downstate electric grid. In addition, Generator Stakeholders noted that generator interconnection queues throughout the United States have been overwhelmed and backlogged with generator interconnection requests. One Generator Stakeholder suggested that any NYPA efforts related to generator interconnection process reforms should first focus on the implementation of FERC Order 2023.

The Generator Stakeholders recommended that NYPA coordinate any workforce development activities or efforts with existing activities and efforts taking place within the State to maximize NYPA's impact.

Labor Organizations

NYPA conferred with several labor organizations, including the International Union of Operating Engineers, International Brotherhood of Electrical Workers, NYC Building Trades Council, and Communications Workers of America ("Labor Stakeholders").

Labor Stakeholders expressed a willingness to work with the Power Authority and the State to help achieve Climate Act goals. Labor Stakeholders expressed the view that clean energy economy is a huge opportunity for developing well-compensated, long-term union jobs and career paths.

Some Labor Stakeholders expressed concern that much of the State's solar economy resides with smaller, independent contractors, using non-union labor. Labor Stakeholders noted that wind projects, which are larger and more involved, provide better opportunity for labor and for union jobs. They reported being much less enthusiastic about the solar energy sector – the jobs are typically less skilled, lower paying, and non-union.

Labor Stakeholders stressed the importance of creating a well-trained and fairly-compensated union workforce to support construction of renewable generation and transmission assets that the State will need to meet Climate Act goals. Labor Stakeholders indicated that they are willing to train workers to learn new skill sets that will be necessary to address new technologies that renewables will present. Labor Stakeholders said that they are already preparing workers to support the transition to a clean energy economy. They said that the State needs to focus on attrition rates for journey persons who will be retiring and plan recruitments, and that NYPA can also support the development of training programs. Some Labor Stakeholders indicated that there are a lot of workforce programs in the clean energy space, but that there is a need to ensure that programs are not duplicating efforts. Labor Stakeholders also shared that disadvantaged communities should be targeted for hiring in the bid process.

Labor Stakeholders expressed support for the REACH program, and observed that NYPA's role in REACH will be critical to electricity affordability for disadvantaged communities.

Some Labor Stakeholders expressed the view that the time frames expressed in the CLCPA are unrealistic, given the many obstacles for placing renewables in service, including supply chain issues, procurement and siting processes, an absence of other resources, like vessels needed for offshore wind, and construction time and delays. Some Labor Stakeholders expressed the view that elected officials need to better appreciate the practical implications of how project construction works before simply establishing goals in law.

Some Labor Stakeholders expressed concern about private developers proposing or initiating projects, then abandoning them. The potential for thousands of new jobs will not come to fruition if this is permitted to happen, and could lead to outsourcing.

Labor Stakeholders stated that project labor agreements and labor peace agreements should be included in RFPs for new renewable electric generation projects.

Labor Stakeholders indicated that the Climate Act and the 2023 Budget Enactment present huge opportunities to bring renewables-related manufacturing back to New York with good jobs.

Some Labor Stakeholders indicated that there should be more focus on hydrogen and nuclear technologies.

Some Labor Stakeholders expressed that electricity must be affordable.

Some Labor Stakeholders stated that they believe transmission lines should be buried.

Municipalities

NYPA conferred with organizations representing the interests of municipal entities across the State, including the New York Conference of Mayors, New York State Association of Counties, New York State Association of Towns (collectively, the "Organizations"). NYPA also met with representatives of the City of New York (the Mayor's Office of Climate & Environmental Justice), as well as ElectrifyNYC, a program run by community-based organizations and local government partners "dedicated to helping New Yorkers implement clean, cost-effective cooling, heating, and energy solutions in their homes."[67]

Municipal Stakeholders expressed a desire to work with the Power Authority to explore potential renewable projects and to understand more about the State's vision for reaching CLCPA goals.

Many Municipal Stakeholders said that they are interested in supporting renewable energy projects, since projects can provide economic development opportunities for communities. However, Municipal Stakeholders stated that communities stated that they desire to learn more about the State's vision for achieving CLCPA goals, and desire more information on what types of technologies will be considered to be renewable energy.

Some Municipal Stakeholders said that State agency personnel should engage in more local community meetings and host webinars on the need for renewables to explain the basics and garner more support for the State's transition to renewables.

Some Municipal Stakeholders said that developers should get communities involved and discuss projects as early as possible. Municipal Stakeholders expressed frustration over developers overloading communities with information and technical language. They said that plain language communication and early communication is critical. Some Municipal Stakeholders requested assistance in marketing campaigns to combat what they referred to as misinformation

Municipal Stakeholders indicated that large municipalities tended to be more supportive of CLCPA goals than smaller communities, which may be less informed about State energy

[67] *See* https://www.nyc.gov/site/electrifynyc/about/what-is-electrifynyc.page

priorities due to more limited resources, and larger municipalities, such as Buffalo, appeared to be more interested in workforce development and training than smaller communities.

Municipal Stakeholders indicated that some local governments are not supportive of the State siting law (Executive Law § 94-c), because they believe it interferes with local control over property development, and enables developers to utilize land, especially agricultural resources, and impact other local resources (*e.g.,* vistas) for profit. They also related that some communities and residents feel burdened by projects and that renewable energy projects are imposed upon them. Some Municipal Stakeholders expressed concern that upstate communities could be unfairly burdened (*e.g.,* renewable generation and transmission lines) to benefit downstate communities.

Municipal Stakeholders expressed support for host benefit agreements for developers of large renewable generations projects.

It was reported that some member municipalities, especially municipal utilities, have expressed concern about capacity of the grid to support deployment of renewable generation projects to achieve Climate Act goals, and potential impacts on grid stability.

Municipal Stakeholders expressed concern about the feasibility of building out electric vehicle infrastructure for fleet vehicles and large trucks due to supply chain issues, maintenance, and expenses. They said that parking lots and rooftops are a great opportunity for solar installations, and the State should do more to facilitate this low impact option. One stakeholder mentioned pending legislation that would facilitate such projects in parks.

Municipal Stakeholders indicated that members in general expressed support of REACH, but indicated that community-wide initiatives like building out broadband access, should be a priority because they help entire communities and meet an immediate and critical need.

Municipal Stakeholders indicated that members strongly support workforce development in disadvantaged communities. “PUSH Buffalo” was cited as a successful model.

Municipal Stakeholders opined that the State needs to begin focusing on the grade school level to prepare for a future workforce, but some members have expressed skepticism of long-term job potential from renewable energy projects.

Municipal Stakeholders and their members expressed a desire to learn more about thermal energy technology and potential opportunities.

New York City Mayor’s Office of Climate & Environmental Justice

The New York City Mayor’s Office of Climate & Environmental Justice (“MOCEJ”) strongly supports the Climate Act, which aligns with New York City’s own goals and policies.

Representatives expressed concern that inflation and supply delays, reliability needs determined by the NYISO for summer 2025 in its recent Short-Term Assessment of Reliability, and the time it takes to deploy new renewable energy projects, could threaten timely attainment of Climate Act and New York City goals.

MOCEJ suggested that NYPA should consider repurposing “peaker” facilities for community use, specifically for host communities. Examples of potential uses include offshore wind

interconnection, renewable energy generation and storage facilities, parks and waterfront access.

MOCEJ noted that it will be important for the appropriate entity to ensure that REACH is implemented effectively and asserted that some customers are not receiving credits to which they are entitled under existing programs. MOCEJ suggested that NYPA could benefit from consulting with the New York City Housing Authority

MOCEJ suggested that job programs should focus on tangible benefits creating real lasting linkages and pathways to employment that facilitate employment across the State, but that also create opportunities for local hiring.

MOCEJ suggested that the NYISO interconnection queue for renewable energy projects should be further streamlined, and noted that project costs and siting are significant hurdles in deploying solar and storage in New York City.

MOCEJ recommended that NYPA think broadly regarding siting and storage throughout New York State, with a goal of making it affordable and accessible for smaller municipalities. MOCEJ expressed an eagerness for working and coordinating with NYPA to help address the challenges of greening New York City's energy grid and phasing out fossil fuel plants.

NYS Office of General Services

NYPA conferred with staff of the New York State Office of General Services ("OGS"). OGS commented that coordination between New York State agencies will be critical for helping the State realize CLCPA goals. It supported giving NYPA a larger role in understanding climate goals that individual agencies are trying to achieve, and planning and coordinating with State agencies to avoid duplicative efforts and improve efficiencies. OGS noted that it confers with NYPA on energy-related projects on an almost daily basis. As part of this approach, OGS suggested that a coordinated approach would enable OGS to look at its property and facility portfolio to potentially solve for good positive renewable development outcomes. It recommended that as part of its expanded authority, NYPA identify one or more renewable generation project models that will make financial sense for State agencies to support agency build-out of renewable energy projects.

Public Power

NYPA conferred with two organizations representing public power interests ("Public Power"), the Municipal Electric Utilities Association of New York State and the New York Association of Public Power.

Public Power representatives commented that their obligations lie with their municipal utility members and end use customers. They said that most of their supply already comes from renewable hydroelectric power in New York, which has worked well for them. Public Power interests stated that they support achievement of the objectives of the CLCPA and have their own independent energy efficiency programs. They raised concerns about cost impacts on their members, for example, the costs of curtailment of hydroelectric resources caused by new renewable energy facilities added to the power system upstate. Representatives commented on the costs of implementing a clean energy standard for their customers, who are already fully or mostly "green" from a power supply perspective.

Representatives of Public Power stated that extending the REACH program to municipal electric utilities could be problematic and there will be a need to define initiative details. It is unclear, they said, how NYPA would implement a bill credit system for their members, how they would identify low-income and moderate-income customers to whom the bill credits would apply, and how they would establish a mechanism to provide the credits on customers' bills.

Public Power representatives stated that they would be interested in NYPA's workforce development programs that could assist their operations.

With respect to interconnection, Public Power representatives said that it is important not to let impatience with the process drive changes that ultimately could be more harmful to outcomes on the power system.

OBSERVATIONS AND CONCLUSIONS

1. Participating stakeholders from around the State provided NYPA with valuable insights and perspectives throughout the conferral process. NYPA met with and received comments from a broad spectrum of interests, including community and environmental justice organizations, agriculture interests, State and local government entities, community colleges, colleges and universities, environmental and energy policy organizations, municipal utilities, large and small consumer interests, labor interests and unions, and generator developers. NYPA will consider this information in developing its first strategic plan. NYPA will receive additional stakeholder input as it moves forward with the development of NYPA's first strategic plan and implementation of other responsibilities assigned to NYPA under the 2023-24 State Budget.
2. The conferral process confirmed that there is tremendous stakeholder support for achieving the goals of the CLCPA. The Clean Energy Standard, established by the Commission and administered by NYSERDA, has resulted in significant progress towards procuring contracts for renewable energy attributes. Some stakeholders have expressed concerns related to feasibility, interconnection delays, affordability, system reliability, and environmental and land use impacts of new renewable generation. In contrast, many stakeholders expressed optimism with progress to date and identified a multitude of opportunities related to climate action and leadership, disadvantaged community benefits, economic development, workforce development, and agrivoltaics.
3. NYPA observes that many communities are still trying to fully understand the implications of the CLCPA and how it will impact them. Many consider the CLCPA as in a "nascent" phase and are just starting to investigate the potential ramifications for their specific local context. A common theme was curiosity and concern about the State's capacity and ability to achieve the goals and objectives set forth in the CLCPA. Some communities consider the goals lofty, and there is a perception among some that the implementation of the CLCPA may not be practical or achievable on the current timetable. Many stakeholders commented that the State needs to do more to educate local communities on the purpose of the Climate Act, how the State intends to implement it in the long term, and what the impacts will be on communities and residents.
4. Currently, under the Clean Energy Standard, there are enough awarded, contracted, and operational projects to meet and exceed the goal of 70% renewable energy by 2030,

and with recent announcements, the State is nearing completion of its contracting efforts to meet the offshore wind goal of 9 GW. That said, some commentors expressed concern with the feasibility of achieving these goals, noting recent delays caused by COVID-19, supply chain shortages, human resources shortages (including skilled engineers and trained labor) and most significantly, inflation. Some commenters noted that the economic viability of some of these projects has recently been called into question by developers seeking additional financial relief for previously contracted projects – requests that were recently denied by the Commission.[68] The Commission denied these requests for price modifications, and recommended that NYSERDA continue its procurement efforts for land-based renewables and offshore wind on an expedited basis, allowing developers to cancel existing contracts and bid back in with competitive pricing that takes into consideration current market conditions.[69]

5. Consistent with the Commission's recommendation, Governor Kathy Hochul announced the release of a 10-Point Action Plan, directing NYSERDA to launch accelerated procurements to backfill any land-based renewable or offshore wind contracts that are terminated. On November 17, 2023, Governor Hochul announced that these expedited solicitations will be released by NYSERDA on November 30, 2023, with bids due in January 2024.[70] Therefore, although it is possible that the number of contracted renewable projects may decrease in the near future, the withdrawn projects will have new near-term opportunities to secure new contracts with updated competitive pricing, keeping New York on track to meet the ambitious goals of the CLCPA.

6. The conferral process confirmed strong stakeholder support for renewable energy as a means to address the impacts of climate change through reducing and eliminating greenhouse gas emissions from the State electric system. While all stakeholders embraced these environmental benefits, some stakeholders expressed concerns related to environmental and land use impacts of the State's transition to solar and wind energy. Most notable among these concerns was related to agricultural land being used for solar energy production. Of these commenters, almost all similarly expressed interest in the opportunity presented by agrivoltaics to address these concerns. Similarly, many stakeholders focused on the opportunities presented by the implementation of the CLCPA, particularly those opportunities to provide meaningful benefits to disadvantaged communities. In addition, stakeholders underscored the opportunities for New York's skilled trade labor force to flourish from increased construction activity and workforce development efforts, opportunities that are already starting to come to fruition.

7. Stakeholders were largely supportive of NYPA's new authority to develop renewables, establish the REACH program, facilitate a just transition away from fossil fuel, and support workforce development. Many stakeholders embraced NYPA taking a larger role in renewable development and were hopeful that their relationship to such development would be less concerned with profit and more oriented to community impacts and benefits moving forward. All commenters seemed to agree that downstate "peaker" plants should be transitioned away from fossil fuel consumption, but there is no

[68] Case 15-E-0302, et al., Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Denying Petitions Seeking to Amend Contracts with Renewable Energy Projects (October 12, 2023).

[69] *Id.* at 48-49.

[70] Per New York State website at https://www.governor.ny.gov/news/governor-hochul-announces-progress-renewable-energy-solicitations-part-10-point-action-plan

consensus on what should be done with such sites. Some stakeholders want to see NYPA's small natural gas power plants replaced with offshore wind interconnections, renewable energy generation, and storage facilities, while others want to see those sites reused for public parks and waterfront access. NYPA will continue to solicit community views on the future of these sites.

8. NYPA's development of renewable energy does not necessitate risks to be borne by existing NYPA customers, as suggested by some commentators.

9. All stakeholder groups universally agreed that a trained and adequate workforce will be critical to support the State's transition to clean energy. Therefore, it is critical that relevant agencies coordinate with labor unions and training institutions to ensure that adequate resources exist to train the workforce of the future. The Power Authority and the State Department of Labor ("DOL"), including the new Office of Just Energy Transition within the DOL, as well as the State's labor unions, can play vital roles in addressing this need and avoiding redundancy in the funding and implementation of training programs. NYPA notes that the State's labor unions have indicated that they are already beginning to expand their training resources to address the skill sets needed for clean energy jobs.

10. Some stakeholders expressed concerns related to the affordability of achieving the renewable energy goals of the CLCPA.

11. NYPA observes that communities generally support the REACH program to help low income New Yorkers with their energy bills, but are waiting to see how the program will operate and benefit communities. These details will be determined in a new proceeding initiated by NYPA before the Commission in the coming months.

12. Several stakeholders suggested that the State should focus on other technologies, not just wind and solar, to produce electricity, although we note that these technologies may not qualify as renewable energy under the Climate Act.

13. Many stakeholders commented on the pace at which renewable energy projects move through the NYISO interconnection process. The conferral process has highlighted that this problem is not unique to New York, and interconnection queues across the United States have seen unprecedented increases in the amount of new proposed generation seeking to connect. Stakeholders were hopeful that this problem will be resolved through the ongoing implementation of FERC Order No. 2023.

14. Many stakeholders expressed concern about the continued reliability of New York's power system as it becomes increasingly reliant on intermittent resources, such as wind and solar. Some commentors reflected on NYPA's long history and experience in the State's electric energy system as an asset for long-term statewide electric system planning and coordination. NYPA notes the State's continued progress on multiple fronts that will help New York maintain a reliable electric system as it progresses toward achieving the CLCPA goals. These include movement toward attaining the energy storage goals of the CLCPA, such as the recently filed Energy Storage Roadmap and NYPA's recently commissioned Northern New York Energy Storage Project; the advancement of significant transmission upgrades, including NYPA's Smart Path Connect and Propel NY projects; electric load reduction through the use of thermal networks and geothermal technology; and the Commission's proceeding establishing a

process to select the appropriate technology to provide the grid-firming capacity required for the zero-emission electric system of 2040.

15. In accordance with the 2023-24 State Budget, the Power Authority will use the information collected through the conferral process as we embark on the preparation of our first strategic plan in 2025. Among other priorities that will be addressed in its strategic plans, NYPA intends to build out renewable generation equivalent to the capacity that will be lost by the ultimate retirement of its fossil fuel plants, consistent with a key finding contained the in Public Power & Climate Leadership Report (March 2023), commissioned by the Public Power New York Coalition.

APPENDIX A

LIST OF CONFEREES

1. Alliance for Clean Energy New York
2. Association of Towns of the State of New York
3. Bronx Council for Environmental Quality
4. Citizens Campaign for the Environment
5. Climate Jobs NY
6. Coalition of Attorneys Representing Municipalities And Citizens in New York State Wind and Solar Project Siting Proceedings
7. Communications Workers of America
8. Cornell University
    - Atkinson Center for Sustainability
    - Department of Ecology and Evolutionary Biology
    - School of Industrial and Labor Relations
9. El Puente
10. Electrify NYC (Electrify New York City); The New York City Mayor's Office of Climate & Environmental Justice
11. Environmental Advocates NY
12. Harlem River Working Group
13. Independent Power Producers of New York
14. International Brotherhood of Electrical Workers
15. International Union of Operating Engineers
16. Multiple Intervenors
17. Municipal Electric Utilities Association of New York State
18. New York State Conference of Mayors and Municipal Officials
19. New York Energy Alliance
20. New York Farm Bureau
21. NYS Building & Construction Trades Council
22. New York State Department of Agriculture and Markets
23. New York Association of Public Power
24. New York Community Colleges Energy Equity
25. New York League of Conservation Voters
26. NY Renews
27. NYC Department of Citywide Administrative Services
28. New York City Environmental Justice Alliance
29. New York State AFL-CIO
30. New York State Association of Counties
31. New York State Laborers-Employers Cooperation and Education Trust
32. New York State Office of General Services
33. The PEAK Coalition
34. Power for Economic Prosperity
35. Public Utility Law Project of New York, Inc.
36. PUSH Buffalo

37. Queens Climate Project
38. SMART, the International Association of Sheet Metal, Air, Rail and Transportation Workers
39. South Bronx Unite
40. State University of New York at Buffalo
41. SUNY Maritime College
42. Sustainable Westchester
43. Urban Green Council
44. US Light Energy
45. Workforce Development Institute

STATE AGENCIES AND FEDERAL ENTITIES CONSULTED

1. New York Independent System Operator
2. NYS Department of Environmental Conservation
3. NYS Public Service Commission
4. New York State Energy Research & Development Authority
5. Office of Renewable Energy Sitting

6.5 Appendix E- 2024 Conferral Report

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

(Published October 8, 2024)

NEW YORK STATE | NY Power Authority | Canal Corporation

TABLE OF CONTENTS

Introduction

The 2023-24 Enacted State Budget amended the Public Authorities Law ("PAL") to require the New York Power Authority ("NYPA" or the "Power Authority"), beginning in 2025, and biennially thereafter, to develop and publish a Strategic Plan that identifies, among other things, NYPA's renewable energy generating priorities.[71] To help inform NYPA's development of each Strategic Plan, PAL § 1005(27-a)(d) instructs NYPA to confer annually with stakeholders to solicit their views on, among other things, how NYPA should implement its expanded authority to build new renewable generation resources, considering the State's progress on meeting the renewable energy goals of the Climate Leadership and Community Protection Act ("Climate Act" or CLCPA"),[72] and the status and timing of the interconnection process of the New York Independent System Operator, Inc. ("NYISO").[73] In November 2023, NYPA completed its first annual conferral process and published its first Conferral Report.[74]

Following the completion of its second annual conferral process, the Power Authority is making this 2024 Conferral Report available to the public in accordance with PAL § 1005(27-a)(d) which provides:

> *No later than one hundred eighty days after the effective date of this subdivision, and annually thereafter, the authority shall confer with the New York state energy research and development authority, the office of renewable energy siting, the department of public service, climate and resiliency experts, labor organizations, and environmental justice and community organizations concerning the state's progress on meeting the renewable energy goals established by the climate leadership and community protection act. When exercising the authority provided for in paragraph (a) of this subdivision, 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. Any conferral provided for in this paragraph shall include consideration of the timing of projects in the interconnection queue of the federally designated electric bulk system operator for New York state, considering both capacity factors or planned projects and the interconnection queue's historical completion rate. A report on the information developed through such conferral shall be published and made accessible on the website of the authority.*

This Conferral Report satisfies the above-referenced requirement for 2024, provides background into the conferral process, summarizes the viewpoints of the conferees, and provides the Power Authority's observations and conclusions on the 2024 conferral process. The Power Authority conducts this conferral process annually, and reports information collected through each conferral process, as required by PAL § 1005(27-a)(d).

[71] PAL § 1005(27-a)(e).

[72] Chapter 106 of the Laws of 2019.

[73] PAL § 1005(27-a)(d).

[74] 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 2023, available at: https://www.nypa.gov/-/media/nypa/documents/document-library/conferral-report/NYPA-Conferral-Report-Conferral-Year-2023-Final-Publication.

The conferral process continues to underscore both the needs and opportunities for NYPA to help advance the State's progress with the renewable energy goals of the Climate Act. The initial conferral process and the resulting 2023 Conferral Report were only the beginning of a robust and iterative public outreach process. For the 2024 conferral process, NYPA gathered feedback from 33 stakeholder groups, including state agencies and authorities, regulatory entities, climate and resiliency experts, labor organizations and environmental justice and community organizations.[75] Topics covered included progress on the Climate Act's renewable energy goals, the NYISO's generator interconnection process, and State priorities, including green job creation and bringing benefits to disadvantaged communities. NYPA also sought stakeholder input on ideas for training and retraining of the State's workforce to support the State's shift to a clean energy economy.

Both the 2023 and 2024 conferral processes will inform NYPA's draft Strategic Plan, which will be further enriched by upcoming public hearings. As required by PAL § 1005(27-a)(e), the Power Authority will make a draft of the biennial Strategic Plan available for public comment and will incorporate stakeholder feedback into the final Strategic Plan to be published on NYPA's website and submitted to the Governor and the Legislature by January 31, 2025.[76] NYPA expected to release its draft Strategic Plan on October 8, 2024.

Thursday, November 7th	10am-12pm, 6-8pm	Niagara Power Vista, Niagara
Thursday, November 14th	10am-12pm, 6-8pm	Holiday Inn Downtown, Binghamton
Monday, November 18th	10am-12pm, 6-8pm	Albany Capital Center, Albany
Wednesday, November 20th	10am-12pm, 6-8pm	John Jay College, NYC
Thursday, November 21st	10am-12pm, 6-8pm	Virtual Open House
Monday, November 25th	1-3pm, 6-8pm	Suffolk Community College, Brentwood

8 Background

A. CLIMATE ACT

Enacted in 2019, the Climate Act established pioneering objectives and requirements aimed at addressing climate change and guiding the State towards a sustainable, clean energy-based economy. The Climate Act codified several targets, enhanced through executive action by Governor Kathy Hochul, intended to reduce greenhouse gas emissions and facilitate integration of new renewable resources and energy storage into New York's electric grid, notably:

[75] Please note that NYPA's formal annual conferral interviews generally take place between June and September of each calendar year, while written comments can be received at any time. Conferral Reports will be published in November of each year and will incorporate any feedback received between August 1 of the prior year through July 31 of the year of the report. Insights for the 2025 Strategic Plan are taken from the 2023 and 2024 Conferral Reports.

[76] PAL § 1005(27-a)(e).

- Generate 70% renewable energy by 2030 (the "70% Renewable Energy Goal");
- Install 6,000 megawatts ("MW") of solar capacity by 2025. Governor Hochul and the Public Service Commission ("PSC") have established a more ambitious target of 10,000 MW (or 10 gigawatts ("GW")) of solar capacity by 2030 (the "6 GW Distributed Solar Goal" and the "10 GW Distributed Solar Goal");[77]
- Integrate 3,000 MW of energy storage capacity by 2030. Governor Hochul and the PSC have established an even more ambitious target of 6,000 MW by 2030 (the "6 GW Energy Storage Goal"); and
- Build 9,000 MW of offshore wind by 2035 (the "9 GW Offshore Wind Goal").

Beyond setting renewable energy goals, the Climate Act also set a target that, by 2040, the statewide electrical demand system will be zero emissions (the "100% Zero Emissions Goal").[78]

B. NYPA'S EXPANDED AUTHORITY

The 2023-24 Enacted State Budget included amendments to the Power Authority Act (Title 1 of Article 5 of the PAL) that granted NYPA new authority ("expanded authority") to, among other things, 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. NYPA may undertake such projects to: (1) support the State's renewable energy goals established in the Climate Act; (2) provide or maintain an adequate and reliable supply of electric power and energy in the State, including but not limited to, high need areas and communities served by the Power Authority's small natural gas power plants; and (3) support the Renewable Energy Access and Community Help ("REACH") Program for the purpose of providing bill credits to low-income and moderate-income ratepayers in disadvantaged communities.[79]

In connection with this expanded authority, NYPA must, beginning in 2025, and biennially thereafter, develop and publish a renewable energy generation Strategic Plan that identifies, among other things, the State's progress towards achieving the Climate Act's renewable energy goals and NYPA's renewable energy generating priorities for the two-year period covered by the Strategic Plan.[80] The Power Authority will publish a draft Strategic Plan for a public comment period of sixty days and hold hearings in geographically diverse regions of the State.[81] Until 2035, the Power Authority will update each biennial Strategic Plan annually after a public comment period of at least thirty days and after conducting at least one public hearing.[82]

[77] On April 14, 2022, the PSC expanded the installation target of the NY-Sun program from 6,000 MW to 10,000 MW of distributed solar generation projects. *See* Case 21-E-0629, et al., Advancement of Distributed Solar, Order Expanding NY-Sun Program (April 14, 2022).

[78] PSL § 66-p(2). The Climate Act also established a goal, codified under PSL § 66-p(6), for achieving 185 trillion BTUs of end-use energy savings below the 2025 energy-use forecast.

[79] *See* Part QQ of Chapter 56 of the Laws of 2023, enacting PAL §§ 1005(27-a)-(27-d) and amending PSL § 66-p.

[80] PAL § 1005(27-a)(e)(i).

[81] PAL § 1005(27-a)(e)(vii).

[82] PAL § 1005(27-a)(e)(ix).

To help inform NYPA's development of its biennial Strategic Plans, PAL § 1005(27-a)(d) instructs NYPA to confer annually with stakeholders to solicit their views on the State's progress on meeting the renewable energy goals of the Climate Act. PAL § 1005(27-a)(d) further directs that the conferral process consider the timing of projects in the interconnection queue administered by the NYISO, the capacity factors of such projects, and the historical completion rate of such projects in the NYISO interconnection queue. The statute directs NYPA to publish a report on the information developed through this conferral process on NYPA's website. NYPA completed the initial conferral process called for by the statute on or about November 1, 2023, and published the first Conferral Report on the NYPA website on November 30, 2023. NYPA conducted the 2024 conferral process in July, August, and September.

Climate Act Progress

The CLCPA requires the PSC to issue a comprehensive review of the Clean Energy Standard ("CES") no later than July 1, 2024, and to do so every two years thereafter ("CES Biennial Review"). On July 1, 2024, staff from the New York State Department of Public Service ("DPS") and the New York State Energy Research and Development Authority ("NYSERDA") filed a draft version of the inaugural CES Biennial Review for consideration by the PSC.[83] The analysis of New York's Climate Act progress in this 2024 Conferral Report was developed using information from the draft CES Biennial Review.

The draft CES Biennial Review provides both retrospective and prospective views of the State's progress towards achieving the renewable energy goals of the CLCPA. The first four sections cover progress to date, addressing the policy and regulatory background of the CES and its antecedent program, the Renewable Portfolio Standard, operational renewable energy systems that have come online prior to January 1, 2023, contracted renewables, and factors affecting progress, including inflation, interest rates, transmission congestion, interconnection delays, capacity accreditation, federal incentives, siting reforms, and unforeseen growth in Statewide electric load. The final two sections set forth a prospective view on various pathways to meeting the 70% Renewable Energy Goal (discussed below) and options to reform the CES program.

A. THE 70% RENEWABLE ENERGY GOAL

To accomplish the 70% Renewable Energy Goal, the PSC relies primarily upon the CES, originally established in August of 2016.[84] The CES is administered by NYSERDA, with oversight from the PSC and DPS.

At the heart of the CES is NYSERDA's procurement of renewable and zero-emission energy attributes from generators injecting renewable or zero-emission energy into the New York State Control Area. These attributes, referred to as renewable energy certificates ("RECs") and zero-emission credits ("ZECs"), are purchased by NYSERDA as a centralized procurement agent before they are then sold to the State's

[83] Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Draft Clean Energy Standard Biennial Review (filed July 1, 2024).

[84] Case 15-E-0302, et al., Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard (Issued August 1, 2016).

jurisdictional load serving entities in proportion to their share of the Statewide load.[85] Although the purchase of ZECs advances the 100% Zero Emissions Goal by providing support for nuclear generation, it does not contribute to the renewable energy goals of the CLCPA. In addition to the CES, the NY-Sun program (discussed below) provides incentives for distributed energy resources that also contribute significantly towards both the 10 GW Distributed Solar Goal and the 70% Renewable Energy Goal.

In the 2023 Conferral Report, NYPA reported that New York had enough operating, contracted, and under-development renewable projects to supply 79% of the State's 2030 electricity needs but that recent inflationary pressures may result in some projects failing to deliver on their contractual obligations.[86] On October 12, 2023, the PSC denied petitions requesting additional financial relief to offshore and onshore renewable energy generation projects that were previously awarded contracts by NYSERDA in order to preserve the State's competitive bidding process to procure renewable energy resources in the fairest and most cost-effective manner.[87] Shortly thereafter, Governor Hochul announced the release of a 10-Point Action Plan ("Action Plan") to expand and support the growing large-scale renewable energy industry in New York, reaffirming the State's commitment to achieving the Climate Act goals.[88] Included within the Action Plan was a directive to NYSERDA to launch accelerated procurements to help backfill any renewable energy project contracts that are terminated. Ultimately, renewable energy developers terminated contracts for 88 projects.[89]

In accordance with the Action Plan, NYSERDA launched an accelerated procurement process for both Tier 1 and offshore wind resources on November 30, 2023.[90] After conducting an expedited procurement process, on February 29, 2024, NYSERDA announced the results of the expedited offshore wind procurement, awarding contracts totaling 1.7 GW of planned generation capacity anticipated to reach commercial operation by 2027.[91] Then, on April 29, 2024, NYSERDA announced 24 provisional Tier 1 awards to wind and solar projects totaling nearly 2.4 GW of renewable energy capacity.[92] On June 20, 2024, NYSERDA launched the 2024 Tier 1 solicitation,

[85] *See* Case 15-E-0302, et al., Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Modifying Clean Energy Standard Tier 1 Obligations (Issued April 20, 2023).

[86] *See* 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 2023, pages 5-7 (Published November 2023).

[87] Case 15-E-0302, et al., Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Denying Petitions Seeking to Amend Contracts with Renewable Energy Projects (October 12, 2023).

[88] *New York State's 10-Point Action Plan to Expand a Thriving Large-Scale Renewable Industry,* NYSERDA, October 2023. https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Offshore-Wind/10-point-plan.pdf.

[89] Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Draft Clean Energy Standard Biennial Review, page 47 (filed July 1, 2024).

[90] *See* RESRFP23-1, available at https://www.nyserda.ny.gov/All-Programs/Large-Scale-Renewables/RES-Tier-One-Eligibility/Solicitations-for-Long-term-Contracts/2023-Solicitation-Resources. *See also* ORECRFP23-1, available at https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/Focus-Areas/Offshore-Wind-Solicitations/2023-Solicitation.

[91] *Two Offshore Wind Project Awards Announced, To Deliver Clean Power In 2026*, Available at: https://www.nyserda.ny.gov/About/Newsroom/2024-Announcements/2024_02_29-Governor-Hochul-Announces-Two-Offshore-Wind-Project_Awards.

[92] See RESRFP23-1 Landing Page, available at: https://www.nyserda.ny.gov/All-Programs/Large-Scale-Renewables/RES-Tier-One-Eligibility/Solicitations-for-Long-term-Contracts/2023-Solicitation-Resources.

seeking additional renewable energy projects on an expedited basis.[93] In addition, on July 17, 2024, NYSERDA launched its fifth offshore wind solicitation.[94]

Statewide electric load is also a key factor in achieving the 70% Renewable Energy Goal. The draft CES Biennial Review load forecast includes a significantly higher estimate of load, relative to the 2020 CES Order,[95] reflecting anticipated load growth that was not previously foreseen, from 151,678 GWh as estimated in 2020, to 164,910 GWh as estimated in July of 2024.[96] Factors contributing to this forecasted load growth are (1) new large loads from manufacturing, datacenters, and cryptocurrency mining facilities, (2) increased electrification of buildings, and (3) increased electric vehicle usage.[97]

As of the date of this Conferral Report, NYSERDA and DPS now estimate that New York has enough operating and contracted projects to supply 73,292 GWh of renewable energy by 2030, out of an estimated 2030 statewide load of 164,910 GWh.[98] Additional contracted projects from CES solicitations will add to the renewable energy supply as indicated in the draft CES Biennial Review.[99] The State continues to progress towards the 70% Renewable Energy Goal, with recent estimates from NYSERDA and DPS laying out various scenarios and pathways to reaching that goal, one of which illustrates a potential path to achieving the goal by 2033.[100]

B. EXPANSION TO THE 10 GW DISTRIBUTED SOLAR GOAL

To accomplish both the 6 GW Distributed Solar Goal and the expanded 10 GW Distributed Solar Goal, New York State relies primarily upon the NY-Sun solar incentive program,[101] coupled with the Value of Distributed Energy Resources ("VDER") compensation mechanism.[102] In addition, NYSERDA estimates that there are significant contributions from projects outside of the NY-Sun portfolio, some originating in the service territory of the Long Island Power Authority ("LIPA").[103] Together, these programs are on track to achieve the 6 GW Distributed Solar Goal. As of the date of the 2023 Conferral Report, New York State had 5,037 MWDC of distributed solar energy generation in operation. As of June 30, 2024, New York State had 5,889 MWDC of installed solar photovoltaic generating capacity.[104]

---

[93] *See* RESRFP24-1, available at https://www.nyserda.ny.gov/All-Programs/Large-Scale-Renewables/RES-Tier-One-Eligibility/Solicitations-for-Long-term-Contracts.

[94] *See* ORECRFP24-1, available at: https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/Focus-Areas/Offshore-Wind-Solicitations/2024-Solicitation.

[95] Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting Modifications to the Clean Energy Standard (Issued October 15, 2020).

[96] Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Draft Clean Energy Standard Biennial Review, page 53 (filed July 1, 2024).

[97] Id.

[98] Id. at 56.

[99] Id. at 58.

[100] Id. at 58.

[101] Case 03-E-0188, Retail Renewable Portfolio Standard, Order Authorizing Funding and Implementation of the Solar Photovoltaic MW Block Programs (Issued April 24, 2014).

[102] Case 15-E-0751, et al., In the Matter of the Value of Distributed Energy Resources, Order on New Energy Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters (Issued March 9, 2017).

[103] Case 21-E-0629, In the Matter of the Advancement of Distributed Solar, Report: Impacts of the Inflation Reduction Act and the Incremental Distributed Solar Capacity that Could be Procured Within the Currently Authorized Budget, footnote 28 (filed January 5, 2024).

[104] Statewide Distributed Solar Projects, available at https://www.nyserda.ny.gov/All-Programs/NY-Sun/Solar-Data-Maps/Statewide-Distributed-Solar-Projects.

With substantial progress towards achieving the 6 GW Distributed Solar Goal, the discussion turns to the expanded 10 GW Distributed Solar Goal. In the 10 GW Order, the PSC noted that the 10 GW Distributed Solar Goal is likely to be met within the existing budget. Accordingly, the PSC required NYSERDA to submit a plan on how best to utilize the excess funds to achieve the development of additional distributed solar projects while leveraging federal incentives and maximizing benefits to low-income customers. In recent compliance filings, NYSERDA, as the NY-Sun program administrator, was confident that not only can the 10 GW Distributed Solar Goal be met, but potentially exceeded.[105] According to recent filings, and the most recent NY-Sun Operating Plan, the NY-Sun Program has enough available funding to meet its goal of 8,363 MW, with projects funded outside of NY-Sun making up the remaining 1,637 MW.[106] As of July 31, 2024, there are 3,412 MWDC of solar projects at an advanced stage of development that are slated to receive NYSERDA incentive awards.

C. THE 6 GW ENERGY STORAGE GOAL

On January 5, 2022, Governor Kathy Hochul announced in her State of the State address an intention to double the State's 2030 energy storage deployment target from the legislated 3 GW to 6 GW of storage capacity by 2030. At its June 2024 Session, the PSC approved an order expanding New York's energy storage target to 6 GW by 2030 with an interim goal of 1.5 GW by 2025 (the "Storage Order").[107] The Storage Order approved the Energy Storage Roadmap entitled "New York's 6 GW Energy Storage Roadmap" as filed by NYSERDA and DPS in December 2022 and updated in March 2024 to account for inflation-related cost increases.[108] The Energy Storage Roadmap included a tally of contracted and awarded energy storage projects totaling 1.3 GW.[109]

To achieve the 6 GW Energy Storage Goal, the PSC directed NYSERDA to procure an additional 4.7 GW of storage consisting of 3 GW of bulk storage (resources above 5 MW), 1.5 GW of retail/community storage (resources up to 5 MW), and 200 MW of residential/behind-the-meter storage to be in service by December 31, 2030.[110] For the bulk storage program, the Storage Order directed NYSERDA to conduct at least three solicitations of one GW each to achieve these targets, and to issue the first RFP no later than June 30, 2025.[111] The Storage Order included some specific procurement requirements, including a requirement that 35% of projects be in NYISO Zones G-K, with at least 30% in Zone J, to maximize benefits to disadvantaged communities, and that 20% of bulk storage awards go to long duration (greater than 8 hours) storage projects.[112] In the Storage Order the PSC noted that "[c]ertain regions, such as Long Island and New York City, are especially ripe for the replacement of peaker plants with

[105] Case 21-E-0629, In the Matter of the Advancement of Distributed Solar, Report: Impacts of the Inflation Reduction Act and the Incremental Distributed Solar Capacity that Could be Procured Within the Currently Authorized Budget (filed January 5, 2024).

[106] Id. *See also*, Case 21-E-0629, In the Matter of the Advancement of Distributed Solar, NY-Sun 2020-2030 Operating Plan, page 9, footnote 16 (Effective July 31, 2023).

[107] Case 18-E-0130, In the Matter of Energy Storage Deployment Program, *Order Establishing Updated Storage Goal and Deployment Policy*, at 3 (June 20, 2024).

[108] In the Storage Order the PSC also provided its triennial review of the state of storage program implementation (pages 10-24) and acknowledged NYPA's 20 MW storage project in Chateaugay (page 18).

[109] Id. at 6.

[110] Id. at 41, 47, 60.

[111] Id. at 33.

[112] Id. at 58-59.

energy storage resources and the associated emission reduction directly benefiting those communities."[113]

D. THE 9 GW OFFSHORE WIND GOAL

The draft CES Biennial Review summarizes the challenges faced by the offshore wind industry as follows:

The offshore wind industry has experienced interest rate, inflation, and supply chain vulnerabilities and constraints. Due to the magnitude of offshore wind projects and the upfront capital required to finance such projects, changes to the costs of capital and the costs of inputs can significantly impact financing models across the industry. Similarly unique to offshore wind projects is the need for suitable ports, installation vessels, and equipment such as turbines, substructures, cables, and electrical components. This includes the offshore wind projects requiring high-voltage direct current (HVDC) transmission equipment, which is in limited supply and shortages of which may impact timelines for projects. Due to the magnitude and complexity of each project, delays in one project can result in a cascading delay to other projects, or even a loss of access to one or more of these resources necessary for construction, which can further extend delays.[114]

As of the date of the 2023 Conferral Report, NYSERDA had awarded contracts to 8,392 MW of offshore wind generation capacity. Since that time, the economic headwinds discussed above led to the attrition of these awarded offshore wind contracts, allowing the offshore wind developers to bid into additional NYSERDA solicitations.

As mentioned above, on November 30, 2023, NYSERDA launched its fourth offshore wind solicitation.[115] On February 29, 2024, NYSERDA announced the results of this fourth offshore wind procurement, awarding contracts totaling 1.7 GW of planned generation capacity.[116] In addition, on July 17, 2024, NYSERDA launched a fifth offshore wind solicitation with public award notifications expected in early 2025.[117] These recent developments will help New York progress towards achievement of the 9 GW Offshore Wind Goal.

[113] Id. at 34.
[114] Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Draft Clean Energy Standard Biennial Review, pages 14-15 (filed July 1, 2024).
[115] *See* ORECRFP23-1, available at https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/Focus-Areas/Offshore-Wind-Solicitations/2023-Solicitation.
[116] *Two Offshore Wind Project Awards Announced, To Deliver Clean Power In 2026*, Available at: https://www.nyserda.ny.gov/About/Newsroom/2024-Announcements/2024_02_29-Governor-Hochul-Announces-Two-Offshore-Wind-Project_Awards.
[117] *See* ORECRFP24-1, available at: https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/Focus-Areas/Offshore-Wind-Solicitations/2024-Solicitation.

NYISO Generator Interconnection

A. INTRODUCTION

In developing its Strategic Plan, NYPA considers "the timing, characteristics and size of the renewable energy generating projects in the interconnection queue of the federally designated electric bulk system operator for New York state."[118] In addition, the Strategic Plan will reflect information developed during the conferral process, which includes "consideration of the timing of projects in the interconnection queue of the federally designated electric bulk system operator for New York state, taking into account both capacity factors or planned projects and the interconnection queue's historical completion rate."[119]

In the 2023 and 2024 conferral processes, NYPA engaged with the New York Independent System Operator ("NYISO") to accurately characterize projects in the NYISO generator interconnection queue and how the interconnection process relates to the State's progress on meeting the renewable energy goals established by the Climate Act. NYPA also discussed with the NYISO the timing of projects in the NYISO's interconnection queue, considering both capacity factors of planned projects and the interconnection queue's historical completion rate. Further, NYPA analyzed numerous public documents to gather additional information about these matters, including the current and ongoing queue reform process.

B. BACKGROUND

The NYISO, operating under the oversight of the Federal Energy Regulatory Commission ("FERC"), administers interconnection of new generation to ensure that electric system resources (*e.g.*, generation, storage) are supported by the infrastructure necessary to transmit the generated and stored electricity and support reliable operation of the State's electric grid. The process aims to interconnect resources in a manner that meets minimum interconnection standards that are established by reliability standards organizations and at the least cost.[120]

The NYISO's interconnection processes are regulated by FERC and are set forth in tariffs that are approved by FERC.[121] Generators that seek to interconnect to the transmission system in New York State and to make wholesale sales of electricity must receive approval and an interconnection agreement signed by the NYISO and the connecting transmission owner. Generators sized up to and including 5 MW, and that do not involve federal-jurisdictional transmission or wholesale electricity sales, interconnect to the power system under PSC procedures, which are not part of the NYISO's interconnection queue.

[118] PAL § 1005(27-a)(e)(ii)(F).

[119] PAL § 1005(27-a)(e)(ii)(A) (citing to PAL § 1005(27-a)(d)).

[120] The NYISO's interconnection processes are regulated by FERC and are set forth in tariffs approved by FERC and posted on the NYISO's website: https://www.nyiso.com/regulatory-viewer.

[121] The interconnection provisions were previously housed in the NYISO's Open Access Transmission Tariff ("OATT") Attachments P, S, X and Z. In its Order No. 2023 compliance filing, the NYISO revised and relocated these provisions in a new OATT Attachment HH.

C. NYISO'S INTERCONNECTION PROCESS THROUGH CLASS YEAR 2023

Proposed generation projects have been processed by the NYISO according to a first-come, first-served process. Developers who submit a complete application to the NYISO have their generation projects placed in an interconnection queue. Prior to the recent reforms discussed below, the NYISO interconnection process utilized a series of increasingly specific studies: (1) Feasibility Studies, (2) System Impact Studies or System Reliability Impact Studies, and (3) Facilities Studies, which analyze projects together in a Class Year study for a group of projects. The study processes required the cooperation of the project developers, the NYISO, the connecting transmission owner, affected transmission owners, affected system operators outside New York, and other stakeholders. At the conclusion of the studies, developers knew their interconnection facilities and costs. If they chose to proceed, developers posted collateral to cover their interconnection costs, and signed an interconnection agreement with the NYISO and the Connecting Transmission Owner.122

D. HISTORICAL COMPLETION RATE OF THE NYISO INTERCONNECTION QUEUE

The surge in proposed renewable resource and transmission projects together has created a significant backlog in the interconnection of renewable generation projects to the New York transmission system. In 2018, the NYISO interconnection queue contained approximately 120 projects. As of May 2024, over 500 projects were in the NYISO interconnection queue.[123] Based on 2022 data, the median time to complete the NYISO interconnection study process and execute an interconnection agreement was three to four years.[124] Processing time in the interconnection process has varied among projects and has been affected by a number of factors.

Some delays are caused by generation developers. These include:

- Insufficient data: Developers may fail to provide the NYISO necessary data to study proposed projects or may fail to provide required updates to their interconnection requests and supporting data.
- Timing of election: Developers had the flexibility to make certain elections under the NYISO process through Class Year 2023, which could have extended the timeline for the study process depending upon the developers' elections. For example, developers could choose to wait in the queue for months or years before they enter the final required interconnection study.
- Project modifications: Under the NYISO process through Class Year 2023, developers could propose modifications to their projects during the interconnection study process. Such modifications typically created delays, sometimes significant, in the interconnection study process.

[122] Federal Energy Regulatory Commission, Docket No. RM22-14-000, Improvements to Generator Interconnection Procedures and Agreements, Order No. 2023, 184 FERC ¶ 61,054 (July 28, 2023), at ¶¶ 38-39.

[123] NYISO, 2024 Power Trends Report, available at https://www.nyiso.com/documents/20142/2223020/2024-Power-Trends.pdf/31ec9a11-21f2-0b47-677d-f4a498a32978?t=1717677687961.

[124] According to the Lawrence Berkeley National Laboratory, the NYISO was one of four independent system operators with study times over three years. *See* Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection | Electricity Markets and Policy Group (lbl.gov); PowerPoint Presentation (lbl.gov) at slide 27.

Generation interconnection delay is a national phenomenon and is not unique to New York. In its interconnection reform order, Order No. 2023, the FERC found that:

As of the end of 2022, there were over 10,000 active interconnection requests in interconnection queues throughout the United States, representing over 2,000 GW of potential generation and storage capacity. This potential generation is the largest interconnection queue size on record, more than four times the total volume (in GW) of the interconnection queues in 2010, and a 40% increase over the interconnection queue size from just the year prior. These trends are not exclusive to any one region of the country. Instead, every single region has faced an increase in both interconnection queue size and the length of time interconnection customers are spending in the interconnection queue prior to commercial operation in recent years. Interconnection customers are waiting longer in the interconnection queues nationwide.[125]

The Class Year 2019 group of projects seeking to connect to New York's electric grid contained over 8,000 MW of nameplate capacity, which included 38 solar projects totaling 1,738 MW, 12 wind projects totaling 3,108 MW, and 26 energy storage projects totaling 1,069 MW.[126] The Class Year 2021 group included over 50 proposed projects, consisting of over 7,000 MWs of renewable energy generating projects, including two offshore wind projects.

In Class Year 2023, the NYISO is studying a group of 70 proposed projects, consisting of over 14,000 MWs of renewable energy. The projects under review consists predominately of wind and solar, which will have capacity factors determined by the number of hours a generator is expected to produce energy over a year compared to its nameplate capability. In September 2024, the NYISO issued the Class Year 2023 Facilities Study System Upgrade Facilities (SUF) and System Deliverability Upgrade (SDU) Report, which identified and allocated costs to reliably interconnect these projects. On Sept. 26, 2024, the report was approved by the NYISO's Operating Committee (OC). The NYISO estimates that the class year study of these projects will be presented to the NYISO's Operating Committee for approval in fall 2024, and will be completed this year. Developers can withdraw from the study process or decide whether to move forward with their projects after the interconnection studies are completed.

E. NYISO INTERCONNECTION PROCESS REFORMS PRIOR TO FERC ORDER 2023

Prior to FERC Order No. 2023, the NYISO made some changes to speed up interconnection reviews. These include eliminating certain duplicative study requirements, allowing some projects needing additional study to do so outside the class year process so as not to slow down review of other projects, and lowering

[125] Federal Energy Regulatory Commission, Docket No. RM22-14-000, Improvements to Generator Interconnection Procedures and Agreements, Order No. 2023, 184 FERC 61,054 (July 28, 2023), at 38-39.

[126] *See* Smith, Zachary G. "A new class year: the changing nature of power generation in New York State, and how NYISO is accommodating it," Power Grid International, February 17, 2020, available at https://www.power-grid.com/solar/a-new-class-year-the-changing-nature-of-power-generation-in-new-york-state-and-how-nyiso-is-accommodating- it/?source=email#gref.

milestone permitting requirements that must be completed to proceed through the process.

To address the significant surge in proposed interconnections as part of the historic transition that is underway on the electric grid, the NYISO initiated a comprehensive interconnection queue reform initiative with its stakeholders in late 2022.[127]

F. FERC'S 2023 INTERCONNECTION REFORM ORDER

On July 28, 2023, FERC issued a landmark order on reforming the generator interconnection process nationwide. The order included changes to weed out projects that are not viable and that otherwise delayed the interconnection process. Entitled "Improvements to Generator Interconnection Procedures and Agreements" ("Order No. 2023"), FERC described its reforms as primarily falling into three categories: (1) creating a first-ready, first-served cluster study process; (2) increasing the speed of the interconnection processes of transmission providers for new transmission and generation projects; and (3) incorporating advanced technologies, such as energy storage and transmission devices, into the interconnection process.[128]

On May 1, 2024, the NYISO submitted its Order No. 2023 compliance filing and asked FERC to makes it effective the next day in order to begin implementation right away, in parallel with the completion of its final Class Year Study for 2023 under its prior procedures. The NYISO established a cluster study process that groups projects for a preliminary physical infeasibility screen followed by a two-phased evaluation of the reliability impacts of the projects' interconnections. The first phase assesses the local impacts of proposed interconnections, while the second phase assesses the broader systemwide impacts. Based on the results of the first phase, developers will decide whether to enter the second phase. The cluster study ultimately identifies necessary system upgrade facilities and allocates the costs of those facilities among participating generators.

The NYISO began implementation of procedures to transition to its new interconnection process on May 2, 2024. It commenced a transition Cluster Study Process under its new standard interconnection procedures on August 1, 2024. Following implementation of the new process in May, 255 generation projects were withdrawn from the NYISO's interconnection queue under transition rules proposed as part of the Order No. 2023 compliance.[129] Those projects have the option to submit requests to enter the transitional cluster study until the application window closes on October 15, 2024.

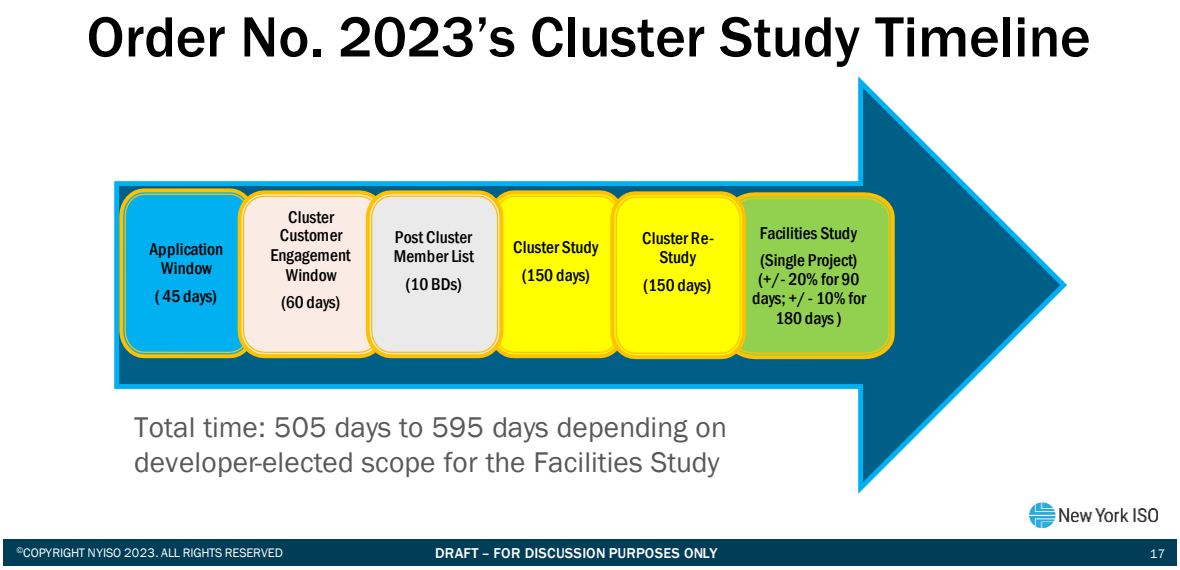
The NYISO expects the study process to be completed for all projects in the transitional cluster study by the end of July 2026. The next Cluster Study would then commence in September 2026. According to the NYISO, the new interconnection

[127] *See* Improvements to Generator Interconnection Procs. & Agreements, Reply Comments of the New York Independent System Operator, Inc., Docket No. RM22-14-000 at 2 (Dec. 14, 2022).

[128] FERC Order No. 2023. FERC affirmed its interconnection reforms in Order No. 2023-A, including its stance on the treatment of network upgrades, allocation of upgrade costs, and the cluster study process, emphasizing a proportional impact method for network upgrades cost allocation, and denying requests to revise or eliminate feasibility studies from the interconnection process. FERC reaffirmed that it will impose penalties for late studies, including on ISOs/RTOs, after initial implementation, starting at $1,000 per study per day and increasing to $2,000 per study per day.

[129] NYISO Interconnection Queue, July 9, 2024, at line 284.

process is expected to be faster, completing in 590 days or about 1.6 years, compared to the previous process that took between three and four years. The timeline below depicts the NYISO's new generation project interconnection cluster study process:



The NYISO's new interconnection process incorporates a myriad of changes in over one thousand pages of new tariff provisions. In summary, the new process seeks to implement the following reforms in Order No. 2023:

- shorten the timeframe for the NYISO's interconnection process in line with the timeframe established in Order No. 2023, by establishing a two-phase Cluster Study Process that incorporates the NYISO's longstanding "first-ready, first-served" clustered Class Year Study into the FERC's new framework and eliminates the stand-alone feasibility and system impact studies;
- establish a pre-application process and a "heatmap," which shows available transmission capability and constraints, to provide interconnection customers with the opportunity to obtain additional information prior to the submission of their interconnection requests;
- screen out projects that are not physically feasible early in the Cluster Study Process to identify physically infeasible interconnections, and permit penalty free withdrawals due to physical infeasibility;
- establish enhanced submission requirements, including more stringent study deposit, technical data and site control requirements, and strict deadlines to cure deficiencies;
- establish several decision periods within the Cluster Study Process with commercial readiness deposits and withdrawal penalties, along with a mechanism for distributing any collected withdrawal penalty funds;

- establish rules to limit project modifications during the Cluster Study Process and provide additional mechanisms for requesting extensions to a project's commercial operation date;
- establish a penalty framework for missed deadlines in the performance of the Cluster Study or an Affected System Study, which would apply to the NYISO take effect in its third Cluster Study Process;
- retain or otherwise incorporate into the Cluster Study Process technology advancement requirements identified in Order No. 2023 related to co-located resources, generator additions, alternative transmission technologies, and modeling and ride-through requirements for non-synchronous generating resources;
- revise operating procedures used to mitigate reliability impacts under the NYISO's Minimum Interconnection Standard so that upgrades are less likely to be required for resources such as energy storage resources;
- address requirements for affected systems located in the New York Control Area and neighboring systems;
- align the treatment of small generating facilities (20 MW or less) with the Cluster Study Process for large generators, incorporating all generation facilities into a single, standardized process;
- establish a transition Cluster Study Process available to all interconnection customers that satisfy the process entry requirements to enable interconnection customers to immediately make use of the new study process without prerequisite studies; and
- provide for additional pro forma forms and agreements to expedite the interconnection process, the negotiation of required agreements, and the construction of required upgrades.[130]

The NYISO summarized its proposed reforms as follows:

These compliance reforms will collectively drive substantial efficiencies and improvements in the NYISO's interconnection process and are directly targeted at enabling the increasing number of projects seeking to interconnect in New York to do so in a reliable, efficient, transparent, and timely manner. In addition to complying with [FERC] directives, the NYISO's proposed reforms will assist New York State in satisfying its ambitious climate goals.131

In sum, the NYISO's reforms of its generator interconnection process are expected to lead to fewer delays and faster completion of the generator interconnections in New York. The success of the NYISO's new interconnection process depends on FERC granting its approval and on the outcome of federal court appeals of FERC Order No. 2023. Monitoring the progress of the new process will be important to determining whether the timing of the interconnection queue meets the expected timeline, and if

[130] NYISO's new standard interconnection procedures are consolidated in a new section HH of its Open Access Transmission Tarff, available at: https://www.nyiso.com/regulatory-viewer.
[131] NYISO Compliance Filing, at 4.

projects that New York needs to fulfill its climate change targets complete interconnection and enter into service on a timely basis.

Stakeholder Conferral

A. NYPA'S APPROACH TO THE 2024 CONFERRAL PROCESS

This 2024 conferral process continues the many stakeholder and public engagement opportunities between the Power Authority and interested members of the public under NYPA's expanded authority. The Power Authority is conducting further public and stakeholder engagement in formulating its draft Strategic Plan that it will submit to the Governor and the Legislature by the end of January 2025. Each year, and as we progress, the Power Authority will solicit views of interested parties to make sure its work to bring more renewables to New Yorkers is well-informed, effective, and transparent.

As part of the 2024 conferral process, NYPA conducted conferral discussions with or received written comments from over 30 stakeholder organizations from across the State. A list of stakeholders who participated in the conferral process is attached as Appendix A.

These discussions were conducted in-person and virtually. Stakeholders were also given the opportunity to submit written statements or other materials as part of the conferral process, with the option to submit them electronically via a NYPA conferral email address established for this purpose: NYPARenewablesConferral@nypa.gov. The key themes in the interviews and written submissions are reflected in the summary below. Copies of written submissions are available on NYPA's website at the following link https://www.nypa.gov/conferral-process. NYPA considered all written and oral comments in drawing the observations and conclusions in Section VI of this report.

Conferral process topics of discussion included, but were not limited to, the following areas of discussion, as time and interest permitted:

- Please share your thoughts on the State's progress toward CLCPA goals.
- Please share your thoughts on how NYPA can or should support CLCPA.
- Please share your thoughts on what NYPA is already doing to support CLCPA.

Conferees were also asked to comment on anything else they would like NYPA to consider.

Although the statute does not require this, NYPA also invited commentary on the issue of training and workforce development, including recommendations for creating clean energy jobs, workforce training and re-training programs, and maximizing opportunities for members of disadvantaged communities.

B. SUMMARY OF CONFERRAL PROCESS COMMENTS

This section of the Conferral Report summarizes the viewpoints of participating stakeholders. It is not intended to be an exhaustive enumeration of all comments

submitted in this process, nor is this summary intended to reflect NYPA's view on any comments received. Although stakeholders provided information on a wide variety of topics, the summary of their viewpoints contained below focuses primarily on those topics discussed or addressed that are germane to the conferral process topics.

Stakeholder feedback from the conferral process is set forth below, with the views of each participating stakeholder sorted into a relevant interest category, such as "Generator Stakeholders" or "Labor Stakeholders." Where possible, similar stakeholder feedback from multiple entities was harmonized into thematic issues of discussion.

8.1.1 Community Organizations and Environmental Justice Advocates

NYPA conferred with numerous organizations representing local community interests as well as disadvantaged community and environmental justice interests ("Community" or "EJ" representatives), including Bronx Council for Environmental Quality ("BCEQ"), a Coalition of Attorneys Representing Municipalities and Citizens in New York State Wind and Solar Project Siting Proceedings, NY Renews, El Puente, PEAK Coalition, South Bronx Unite, and Sustainable Westchester.

A key focus for Community and EJ representatives is how disadvantaged communities are affected. While this group of stakeholders generally supports the CLCPA and would like to see the goals achieved, some believe the goals are misguided and that increased reliance on intermittent resources will result in continued use of fossil fuels for firm capacity. They also noted that the State is falling behind on timely achieving its goals, most notably the 70% Renewable Energy Goal and the 100% Zero Emissions Goal.

Some Community and EJ representatives noted that even though the State is moving slower than some of the CLCPA goals may require, the CLCPA framework has been useful to prioritize State action and align regional priorities. Some Community and EJ Representatives suggested that while many causes of delay are external factors, such as supply chain issues, geopolitical tensions, high interest rates, and inflation, others may be more readily controlled. For example, some representatives observed that the historic NYISO interconnection process has been a barrier to the timely integration of renewables that must be addressed without compromising safety or reliability. In addition, some representatives pointed to the acknowledgement in the draft CES Biennial Review that there are perceived gaps in the New York labor market that may negatively impact success.

Community and EJ representatives generally expressed support for NYPA playing an active role in developing new renewable resources, and applauded NYPA for its initial efforts to advance its new expanded authority to develop renewables. Other representatives expressed the view that NYPA is not being aggressive enough and has not taken enough concrete steps toward developing renewable resources and decommissioning fossil generation sites in the last year, which has required those living in certain disadvantaged communities to continue to unequally endure both expensive energy bills and air pollution from power plants located in their neighborhoods.

Some representatives viewed NYPA's role under the expanded authority as filling "gaps" where the private sector falls short or project economics do not work, while

other stakeholders saw NYPA as having a broader role in adding new renewable energy resources. One representative noted that NYPA has not publicly set forth a goal of how much renewable energy capacity it plans to build. Another representative noted that it would like to see NYPA develop 15 GW of renewable energy capacity by 2030, while another would like to see NYPA abandon new renewable energy development and develop nuclear energy instead. Most representatives fell somewhere in between these viewpoints, urging NYPA to develop several GW of renewable energy and energy storage capacity.

Downstate Community and EJ representatives expressed concerns at the continued operation and re-permitting of NYPA's small natural gas power plants ("SNGPPs"), also referred to as "peakers." Many of these organizations said that NYPA should prioritize phasing out the peaker plants and transition from burning natural gas to a clean energy source that decreases air pollution. Many Community and EJ representatives in New York City stated that NYPA should replace the SNGPPs with energy storage and support education on the benefits of using energy storage. They stated that there is a need for distributed energy storage throughout the city to support grid reliability and resiliency.

Two commenters representing the Bronx, BCEQ and South Bronx Unite focused predominantly on the topic of NYPA's two SNGPPs located in Bronx County at Hell Gate and Harlem River Yards. BCEQ noted its recent opposition to NYPA's renewal of the air permit for Harlem River Yards and requested that NYPA shut down the Harlem River Yards SNGPP prior to 2030, while South Bronx Unite requested a definitive timeline for the same. BCEQ noted that the CLCPA is intended to bring benefits to disadvantaged communities, however they shared the perception that such benefits have not materialized in the Bronx. In addition, BCEQ expressed support for the greening of NYPA properties in the Bronx. Both of these organizations expressed support for bringing electric vehicle charging stations to the area to help reduce local transportation emissions.

Some Community and EJ Representatives stated that NYPA has a role in distributed solar generation, demand response, and energy storage, especially in disadvantaged communities. These commenters advocated for scaling up distributed, customer-sited technologies, like rooftop solar, batteries, and EV chargers. One EJ representative was encouraged by NYPA's virtual power plant pilot demonstration project and its distributed resource development efforts to date and urged NYPA to continue to scale up these efforts.

Some Community and EJ representatives requested that future conferral efforts have more detailed and pointed questions so that participants can provide more direct and useful insights to help identify actionable commitments to advance the environmental and social justice objectives of the CLCPA. These commenters assert that the conferral process should be more transparent, seek additional community input, and ask more detailed questions to allow NYPA to better identify specific projects to prioritize.

One group of upstate Community representatives maintained its comments from the 2023 conferral process focusing on nuclear power for clean energy production and suggested that NYPA should use its new authority or seek additional authority to build

nuclear power to decarbonize the grid in the same manner as France, Sweden, and Ontario. The group pointed out that when the Indian Point nuclear power plant was closed, fossil fuel production increased and decarbonization suffered. They said that reaching 70% renewable energy may be impossible if efforts are just focused on solar and wind, and that there is resistance to solar and wind projects in upstate communities due to land use and visual impacts. The group argued that the State should work to renew the licenses of its existing operating nuclear reactors and plan for the deployment of additional modern nuclear power plants throughout the State, potentially converting shuttered power plants, such as Jamestown and Somerset, to nuclear energy. In addition, the group argued that NYPA should also focus on building high-voltage bulk transmission lines to bring upstate energy to downstate users.

Sustainable Westchester stated that NYPA should make better use of its expanded authority by supplying Community Choice Aggregators ("CCAs"), like Westchester Power, with low-cost energy and engaging more with community groups.

Some Community and EJ representatives expressed their view that NYPA's REACH program should focus on providing bill credits to those rate payers that live near NYPA power plant sites or renewable energy generating project sites.

8.1.2 Consumer Interests

NYPA conferred with Power for Economic Prosperity ("PEP") an association of manufacturing companies that rely on low-cost Niagara Project hydropower in order to maintain their operations in the Buffalo/Niagara region of Western New York.

PEP noted that its members are concerned about the changing regulatory landscape in New York, which may impair individual members' decisions to continue to invest in New York. In general, 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.

With regard to the State's progress, PEP highlighted the recent draft CES Biennial Review, indicating that New York State is behind on meeting the CLCPA goals. PEP supports using this opportunity to pause and conduct a comprehensive assessment of the CLCPA mandates, a comprehensive cost analysis, implementation efforts to date, and future actions. Moving forward, PEP recommends that the State 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 enjoyed by its members. PEP believes that NYPA has demonstrated an aggressive approach to date in moving forward with the legislative requirements of its expanded authority, including the conferral process and issuance of the developer RFQ. PEP urged NYPA to find ways to ensure that the cost of new renewables do not impact the cost of hydropower for its economic development customers by "siloing" such costs and obligations.

8.1.3 Environmental and Energy Policy Advocates

NYPA conferred with a number of organizations that advocate for environmental and/or energy concerns, including the New York Energy Alliance, New York Energy & Climate Advocates, the New York League of Conservation Voters, Public Utility Law Project, the Public Power NY Coalition, and Rewiring America (collectively, "E&E Policy Advocates").

The E&E Policy Advocates strongly support New York's CLCPA efforts, including efforts to advance offshore wind, onshore wind, solar (both distributed and utility-scale) and energy storage. E&E Policy Advocates felt that the State was falling behind on its progress towards achieving the CLCPA goals, citing to the recent Comptroller audit of the CES and the draft CES Biennial Review. Others felt that the CLCPA goals are unrealistic and were unlikely to be achieved from inception. Some expressed that New York State agencies and authorities should do more analysis on how the actions they take may negatively impact the State's ability to achieve the goals of the CLCPA, including bringing benefits to disadvantaged communities.

E&E Policy Advocates expressed different views on what they believe NYPA's role should be in the context of recent events that have taken place since the 2023 Conferral Report; specifically, a high volume of CES contract and award attrition due to unforeseen inflation, and significantly larger load growth projections for 2030 than originally contemplated. While some E&E Policy Advocates expressed their belief that NYPA should develop enough new renewable energy to bring the State back into projected compliance with the 70% Renewable Energy Goal, others expressed that NYPA's expanded authority to build renewables does not require NYPA to fill this gap, nor would doing so be feasible. In between these two positions, some E&E Advocates commented that NYPA should take a role to help address the 70% Renewable Energy Goal while taking care to ensure that projects undertaken minimize costs to consumers and that the resulting benefits are shared equitably.

Some E&E Policy Advocates expressed their desire for a sustained focus on energy affordability and equity, noting that low-income households are already struggling with high utility rates, and this struggle could be exacerbated by additional rate increases. Additionally, some E&E Policy Advocates stated that there is a need for transparency around the costs of the energy transition and a need for education regarding funding opportunities that might exist for low- to moderate-income individuals to lower such costs. Other E&E Policy Advocates stated that NYPA should use federal funds to increase energy efficiency in low-income homes, and work with the State to create an umbrella program to show people in different sectors what resources are available to them to help decarbonize. These E&E Policy Advocates applauded NYPA's efforts to date to establish the REACH program and suggested that NYPA should ensure that any renewable energy generating projects it develops do not burden low-income households. They further suggested that NYPA directly engage in communication with low-income households to better understand their views and priorities.

Some E&E Policy Advocates expressed concern with the focus on renewable energy technology, such as wind and solar, arguing that such technologies have lower capacity factors than other generation technologies and require storage and transmission to be effective. On the topic of technology, some E&E Policy Advocates were supportive of NYPA developing more energy storage projects, especially where

such storage projects might be located at current fossil generation sites. Other E&E Policy Advocates argue that an over-reliance on wind and solar will require New York to continue to rely upon fossil generation to firm up these intermittent resources when batteries are depleted. As a potential solution to this issue, some E&E Policy Advocates said that NYPA should work to expand the capacity of its existing large and small hydro facilities and work with other small hydroelectric owners to expand their facilities. Other E&E Policy Advocates expressed interest in NYPA developing nuclear generation to help achieve the 100% Zero Emissions Goal and suggested that NYPA may wish to consider a public-private partnership with an existing nuclear generation company. Others, however, stated that NYPA's expanded authority focuses on renewable energy systems and that renewable resources do not include nuclear generation.

The Public Power NY Coalition expressed disappointment in NYPA's 2023 Conferral Report and pointed NYPA to an analysis it developed titled "Mind the Gap: An Estimation of the Renewable Energy Needed to Meet New York's Clean Energy Mandates." They also referred NYPA to a recently issued set of recommendations, created in partnership with the Cornell School of Industrial and Labor Relations Climate Jobs Institute, related to workforce training. Those recommendations urged NYPA to take the following actions: (1) dedicate training funds to provide wraparound services to pre-apprentices and apprentices; (2) prioritize allocating funds to match projected construction timelines; and (3) allow for flexibility and workers' voices in program design for funded projects. Public Power NY noted appreciation for NYPA's June 17, 2024, reply comments in the REACH proceeding under PSC Case No. 24-E-0084.

The New York League of Conservation Voters emphasized the need for the State to pursue strategies beyond electrification to ensure that the grid can handle the associated increased load, such as advancing thermal energy networks, and doing more to conserve energy and increase energy efficiency. They stated that more work needs to be done on decarbonization of the transportation sector, including deployment, policy, and education. Specifically, they stated that NYPA should strive to deploy charging infrastructure in a more cost-effective manner, build charging infrastructure along highways, develop transmission to assist with electric school bus deployment, and provide combined solutions, such as solar plus storage coupled with EV charging to assist school districts.

Rewiring America expressed enthusiasm for NYPA's expanded authority, viewing it as an opportunity to help low-income households through the REACH program and lead by example with the NYPA-led Decarbonization Leadership Program. Rewiring America also expressed excitement for the potential of a statewide Cap-and-Invest program to help fund the State's decarbonization efforts.

8.1.4 Generator Stakeholders

NYPA conferred with several organizations representing the interests of energy generators and developers, including independent renewable energy and energy storage developers, the Alliance for Clean Energy New York ("ACENY"), the Independent Power Producers of New York ("IPPNY"), and the New York Solar Energy Industries Association ("NYSEIA") (collectively, "Generator Stakeholders").

ACENY is a renewable energy advocacy organization with collective membership that includes a large percentage of New York's private sector renewable energy developers. IPPNY is a trade organization representing independent renewable and non-renewable generators and developers representing a large percentage of New York's electricity generators. NYSEIA is a statewide trade association dedicated to advancing solar energy use in New York State with many private sector solar developer members.

Some Generator Stakeholders cited to the recent draft CES Biennial Review to express that the State is not likely to achieve 70% Renewable Energy Goal until 2033. One Generator Stakeholder noted that, contrary to popular belief, the cancellation of a NYSERDA offtake contract does not necessitate the cancellation of the underlying renewable energy project, only the need to find a new offtake arrangement. This stakeholder noted that NYSERDA is currently expediting the Tier 1 and Offshore Wind solicitation processes to contract with many of these projects.

NYSEIA asserted that the anticipated delay in achieving the 70% Renewable Energy Goal calls for policy interventions and new strategies to accelerate deployment of renewable energy resources and energy efficiency. They suggest that this strategy should include raising the distributed solar goal to 20 GW by 2035, calling attention to the fact that New York is ahead of schedule to achieve the 10 GW Distributed Solar Goal. They also suggest that policy interventions should include interconnection reform, flexible interconnection, siting and permitting reform to expedite local approvals for rooftop and community solar, and improved rate design and incentive programs to advance beneficial siting and utility bill savings for low- and moderate-income households.

Referencing NYPA's recent RFQ for developers and investors, Generator Stakeholders acknowledged increased willingness to partner with NYPA in the development of renewable energy generation and/or energy storage projects. IPPNY urged NYPA to work through public-private partnerships and focus on implementing projects that would not otherwise happen if not for NYPA's participation, including in the upstate municipal utility services territories. IPPNY maintained its position that NYPA should focus on competitively procuring renewable resources and storage resources through the use of long-term power purchase agreements, rather than NYPA developing and owning the underlying resources. It also asserted that NYPA's development of renewable energy would subject NYPA customers to costs and risks currently borne solely by renewable energy companies and storage companies.

Some Generator Stakeholders continue to suggest that NYPA is best able to contribute to New York's climate goals though building next generation transmission lines to address existing system constraints that hamper renewable energy deployment. These commenters cite to the recent completion of the Smart Path and the Central East Energy Connect transmission projects as examples of NYPA's leadership in transmission and its ability to partner with the private sector. Some Generator Stakeholders urged NYPA to explore the build out of the transmission system to better host renewable energy facilities, including the development of renewable energy interconnection hubs in strategic locations.

Many Generator Stakeholders expressed interest in NYPA repurposing some of its SNGPPs for renewable generation, energy storage, hydrogen demonstration pilots, or to support the integration of new renewable energy into the downstate electric grid. One Generator Stakeholder stated that existing thermal generation facilities are attractive sites for energy storage as they can be readily repurposed, often without incurring significant system upgrade costs. One Generator Stakeholders suggested that NYPA should consider using a competitive solicitation process to help facilitate a solution that represents the best value and lowest cost option to transition its SNGPPs. Another Generator Stakeholder suggested that NYPA issue a competitive solicitation for a hydrogen demonstration project at the facility of an independent power producer, sharing experience gained from NYPA's hydrogen blending pilot.

NYSEIA suggested that NYPA could support CLCPA progress by maintaining high performance from its hydroelectric facilities, citing the acknowledgement in the draft CES Biennial Review that baseline hydroelectric production in New York has declined in recent years due to economic challenges and deferred maintenance.

Generator Stakeholders emphasized the need for workforce training and development and noted that NYPA can play a significant role in this regard. ACENY highlighted NYPA's recent Clean Energy Workforce Training ("CEWT") solicitation, which focused on pathways for employment in clean energy for residents of disadvantaged communities in the vicinity of NYPA sites, as an example of how NYPA is already addressing this need. One independent power producer noted that it is endeavoring to repurpose its existing generation facilities, as opposed to ceasing operations, which will maintain jobs by transitioning and retraining its workforce and suggested that NYPA could do the same. This power producer also noted that a successful workforce development program would lead to opportunities in construction, manufacturing, and operations and maintenance sectors.

IPPNY suggested that NYPA should work with the New York City Housing Authority and help energy consumers in disadvantaged communities. IPPNY stated that NYPA should competitively procure electricity, heating, ventilation, cooling, steam, or hot water from energy service companies for the benefit of disadvantaged communities.

ACENY emphasized the importance of electrification of buildings and transportation and provided a critique of NYPA's EVolve NY Program. ACENY argued that that NYPA should (1) wind the program down and only focus on areas of public need not being filled by private developers now that there is a well-established EV charging industry in the State, and (2) complete Phase I of the National Electric Vehicle Infrastructure ("NEVI") program to allow the State to move onto NEVI Phase II, which allows federal funds to support charging infrastructure for medium- and heavy-duty vehicles such as trucks and buses.

Energy storage advocates submitted comments highlighting the role they say storage should play in the energy transition in New York State. Elevate Renewables F7, LLC ("Elevate") emphasized the benefits of energy storage to the power grid by firming up the integration of variable energy resources, such as solar and offshore wind, and enhancing grid resilience. Elevate said that NYPA should enhance its promotion of energy storage in its Strategic Plan and consider collocating energy storage with renewable energy resources as well as at its thermal generating facilities. Bloom

Energy Corporation commented on the potential for non-combustion biogas-powered fuel cells to contribute to advancing the renewable energy goals of the CLCPA.

8.1.5 Labor Stakeholders

NYPA conferred with several labor organizations, including the International Brotherhood of Electrical Workers Utility Labor Council of New York State, the New York State American Federation of Labor and Congress of Industrial Organizations, the New York State Association of Electrical Workers, the New York State Building & Construction Trades Council, and the New York State Laborers' Political Action Committee ("Labor Stakeholders").

Labor Stakeholders expressed a continued willingness to work with the Power Authority and the State to help achieve the CLCPA goals. Labor Stakeholders expressed the view that the clean energy economy is a huge opportunity for developing well-compensated, long-term union jobs and career paths. Labor Stakeholders stressed the importance of creating a well-trained and fairly-compensated union workforce to support construction of renewable generation and transmission assets the State will need to meet the CLCPA goals. Labor Stakeholders indicated that they are willing to train workers to learn new skill sets necessary to address new technologies that renewables will present. Some Labor Stakeholders said that they are already preparing workers to support the transition to a clean energy economy.

Labor Stakeholders stated that NYPA should integrate requirements for prevailing wage, project labor agreements, labor peace agreements, and domestic content into all renewable energy generating projects. In addition, one Labor Stakeholder urged NYPA to adopt additional standards such as job protections, prompt rehire, and direct assistance for displaced workers. This stakeholder expressed that these requirements are consistent with NYPA's expanded authority and the work of the Climate Action Council and the Just Transition Working Group. Several Labor Stakeholders expressed their desire to see these labor requirements and protections extended from renewable energy generating projects to zero-emissions energy generating projects.

Labor Stakeholders noted that the CLCPA and the energy transition that it contemplates require adaptation of skills to ensure reliability and underscore the critical nature of workforce training and professional development programs. On this topic, one Labor Stakeholder expressed that they are hopeful for the future, but also expressed disappointment in the lack of progress, investment, and communication between the affected unions and government entities, particularly in regard to provisions of the expanded authority relating to operations and maintenance jobs at NYPA renewable energy generation facilities.

Labor Stakeholders commented on what they believe are the most critical components of any potential workforce training programs that NYPA may develop. These recommendations included skills assessments, career counselling, retraining programs, certification programs, State-certified apprenticeship programs, safety training, workshops, courses, on-the-job training, job matching, and hiring preferences. One stakeholder noted that large-scale renewable energy projects are often located in rural areas, where wraparound services such as childcare and transportation are often

necessary for individuals from disadvantaged communities to enter into the clean energy workforce. Some Labor Stakeholders suggested that NYPA does not need to develop new workforce training programs, as highly-effective apprenticeship and pre-apprenticeship programs already exist and can be scaled up.

Several Labor Stakeholders recommended that NYPA consider the benefits of establishing an in-State supply chain for new technologies, and how such efforts might dovetail with existing State and Federal domestic content requirements. One labor stakeholder noted that its partner contractors are actively engaged in procuring domestic electrical supplies and are involved in projects related to manufacturing such equipment in the United States. These stakeholders urge NYPA to provide additional demand for domestic content through contract terms, product utilization, and long-range outlook. In addition to attracting new manufacturing opportunities, one Labor Stakeholder noted the importance of existing New York State manufacturing and other industries that currently depend on low-cost hydropower and non-renewable energy, and cautioned NYPA to ensure that the employees of these businesses are protected and their jobs maintained by ensuring that energy remains affordable.

Some Labor Stakeholders suggested that NYPA refrain from competing with private developers, and instead focus on transmission and locating projects in areas where the private sector is unwilling or unable to build. Some Labor Stakeholders suggested that investor-owned utilities should be able to develop and own renewables themselves.

One Labor Stakeholder recommended that NYPA build out 15 GW of renewable energy capacity by 2030 and enable New York to become a leader in the production of green hydrogen. In addition to renewable technologies, some Labor Stakeholders urged NYPA to develop technologies such as advanced nuclear, thermal energy networks, long-duration energy storage, “green” and “pink” hydrogen, renewable natural gas, carbon capture and storage, virtual power plants, and demand response resources.

8.1.6 Municipal Stakeholders

NYPA conferred with organizations representing the interests of municipal entities across the State, including the New York Conference of Mayors, the New York State Association of Counties, and the New York State Association of Towns (collectively, the “Municipal Stakeholders”).

Municipal Stakeholders expressed a commitment to promoting renewable energy, noting that the goals of the CLCPA must be balanced with the needs and priorities of local communities. The Municipal Stakeholders stated that local governments should have substantial control over the siting of renewable energy and transmission projects within their jurisdiction. They urge NYPA to adopt a structured consultative process that involves local officials, community stakeholders, and public engagement from the initial planning stage through project development to better align NYPA’s efforts with local needs and priorities.

Municipal Stakeholders urge NYPA to facilitate Community Benefit Agreements (CBAs) and Payment In Lieu of Taxes (PILOTs) that are fair, targeted, and

transparent. These stakeholders assert that such agreements should be carefully targeted to reflect the scale, scope, and impact of the project as well as the individual needs of host communities. These stakeholders suggest that NYPA should establish an oversight mechanism to ensure that promised benefits are delivered in a timely and efficient manner.

Municipal Stakeholders urge NYPA to consider environmental impacts, locating projects where they will cause the least amount of harm to the environment, public health and safety, and minimize the occupation of agricultural land. To this end, these municipal organizations suggest that NYPA should collaborate with equipment manufacturers, developers, and policymakers to establish a comprehensive recycling program for renewable energy equipment, such as solar panels and wind turbines. In addition, the Municipal Stakeholders urged NYPA to prioritize health and safety, including the development of emergency response plans in cooperation with local fire departments, police, and emergency medical service providers.

Municipal Stakeholders emphasized the importance of equity and inclusivity in projects that NYPA advances. To this end, these organizations suggest that NYPA provide tangible benefits and clean energy to disadvantaged communities and involve them in NYPA's decision-making process. The municipal organizations also underscore the importance of training and transitioning New York's workforce, including the need for retraining programs, job placement services, and economic support for transitioning fossil fuel workers. The Municipal Stakeholders further suggest that NYPA work with the PSC to develop strategies to lower utility costs, especially in disadvantaged communities.

Municipal Stakeholders also noted that navigating the myriad of resources available to their members was daunting and advocated for the creation of a centralized, web-based toolkit where local governments, businesses, and residents can easily access information related to state and federal climate-related programs and resources. The municipal organizations suggest that this effort should be paired with education and training programs to ensure that stakeholders can use that information effectively, particularly when seeking to secure incentives.

8.1.7 Public Power

NYPA conferred with the New York Association of Public Power ("NYAPP" or "Public Power"). NYAPP is an association of municipal utilities and rural electric cooperatives serving various communities across New York State.

Public Power representatives commented that their obligations lie with their municipal utility members and end use customers. They said that most of their supply already comes from renewable hydroelectric power in New York, which has worked well for them. Public Power interests stated that they support achievement of the objectives of the CLCPA and have their own independent energy efficiency programs. They raised concerns about cost impacts on their members, for example, the costs of curtailment of hydroelectric resources caused by new renewable energy facilities added to the power system upstate. Representatives commented on the costs of implementing a clean energy standard for their customers, who are already fully or mostly "green" from a power supply perspective.

Representatives of Public Power stated that extending the REACH program to municipal electric utilities could be problematic and there will be a need to define initiative details. It is unclear, they said, how NYPA would implement a bill credit system for their members, how they would identify low-income and moderate-income customers to whom the bill credits would apply, and how they would establish a mechanism to provide the credits on customers' bills.

Public Power representatives stated that they would be interested in NYPA's workforce development programs that could assist their operations.

With respect to interconnection, Public Power representatives said that it is important not to let impatience with the process drive changes that ultimately could be more harmful to outcomes on the power system.

8.1.8 Universities

NYPA conferred with Robert W. Howarth, Ph.D., the Atkinson Professor of Ecology & Environmental Biology at Cornell University ("Howarth") and the Sabin Center for Climate Change Law at Columbia University ("Sabin Center").

The Sabin Center was supportive of NYPA's work on transmission development and its new renewable energy generation authority. With respect to transmission, the Sabin Center urged NYPA to continue its efforts to build out transmission assets, prioritizing projects that (1) "debottleneck" renewable energy in constrained areas of the grid, (2) provide the greatest impact on decarbonization, and (3) and allow natural gas peaker plants to be taken offline as soon as possible, and in the interim, used less. Regarding generation, the Sabin Center strongly encouraged NYPA to be a leader in agrivoltaics, demonstrating the ability of agricultural and energy production land uses to coexist in harmony.

Howarth expressed disappointment at the pace of the State's progress towards meeting the goals of the CLCPA. Specifically, Howarth emphasized the importance of electrifying homes and commercial buildings, noting that these buildings are the single largest source of greenhouse gas emissions in the State, and noted that the State has been slow to adopt recommendations of the Climate Action Council to this end. Howarth stated NYPA should be sure to consider the greenhouse gas emissions associated with its economic development awards, in addition to its efforts to build renewables.

Observations and Conclusions

1. Participating stakeholders from around the State provided NYPA with valuable insights and perspectives throughout the 2024 conferral process. NYPA met with and received comments from a broad spectrum of interests, including community and environmental justice organizations, State and local government entities, universities, environmental and energy policy organizations, municipal utilities, consumer interests, labor organizations, and

renewable energy and energy storage developers. NYPA will consider this information and additional stakeholder input as it moves forward with the development of its first Strategic Plan and implementation of other responsibilities assigned to NYPA under its expanded authority. Many of the themes from the 2023 conferral process were revisited in 2024. While some themes remained consistent in their trajectory, other topics, views, and concerns have evolved. Accordingly, NYPA's observations and conclusions follow suit.

2. The conferral process confirmed that there is tremendous stakeholder support for achieving the goals of the CLCPA, and strong stakeholder support for renewable energy as a means to address the impacts of climate change through reducing and eliminating greenhouse gas emissions from the State electric system. While all stakeholders embraced these environmental benefits, NYPA observed growing concern about the timeframes in which the CLCPA goals may be achieved, and the affordability of the clean energy transition. In addition, some stakeholders expressed concerns related to feasibility, interconnection delays, system reliability, and environmental and land use impacts of new renewable generation. In contrast, other stakeholders expressed optimism with progress to date and identified a multitude of opportunities related to climate action and leadership, disadvantaged community benefits, economic development, workforce development, energy storage, biogas fuel cells, and agrivoltaics.

3. A common theme of the 2024 conferral process was concern about the State's ability to achieve the goals and objectives set forth in the CLCPA, which has been emphasized by the draft CES Biennial Review. In the 2023 Conferral Report, NYPA observed that there were, at the time, enough awarded, contracted, and operational projects under the CES to meet and exceed the 70% Renewable Energy Goal. NYPA noted that the PSC had recently denied developer petitions requesting financial relief for previously contracted projects, and the PSC recommended that NYSERDA continue its procurement efforts for land-based renewables and offshore wind on an expedited basis, allowing developers to cancel existing contracts and bid back in with competitive pricing that takes into consideration current market conditions.[132]

4. In the 2023 Conferral Report, NYPA also observed that, consistent with the PSC's recommendation, Governor Kathy Hochul announced the release of the Action Plan, directing NYSERDA to launch accelerated procurements to backfill any land-based renewable or offshore wind contracts or awards that were terminated. In accordance with this Action Plan, NYSERDA launched an accelerated procurement process for both Tier 1 and offshore wind resources on November 30, 2023.[133] In consideration of these circumstances, NYPA concluded that it was possible that the number of contracted and awarded renewable projects may decrease. The Power Authority noted, however, that the withdrawn projects would have new opportunities to secure new contracts with updated competitive pricing, helping to keep New York on track to meet the ambitious goals of the CLCPA.

[132] Case 15-E-0302, et al., Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Denying Petitions Seeking to Amend Contracts with Renewable Energy Projects, pages 48-49 (Issued October 12, 2023).

[133] *See* RESRFP23-1, available at https://www.nyserda.ny.gov/All-Programs/Large-Scale-Renewables/RES-Tier-One-Eligibility/Solicitations-for-Long-term-Contracts/2023-Solicitation-Resources. *See also* ORECRFP23-1, available at https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/Focus-Areas/Offshore-Wind-Solicitations/2023-Solicitation.

5. After the publication of the 2023 Conferral Report, many renewable developers terminated their contracts, but NYSERDA's expedited procurements began to quickly regain ground. On February 29, 2024, NYSERDA announced the results of the expedited offshore wind procurement, awarding contracts totaling 1.7 GW of planned generation capacity anticipated to reach commercial operation by 2027.[134] Then, on April 29, 2024, NYSERDA announced 24 provisional Tier 1 awards to wind and solar projects totaling nearly 2.4 GW of renewable energy capacity.[135] On June 20, 2024, NYSERDA launched the 2024 Tier 1 solicitation, seeking additional renewable energy projects on an expedited basis.[136] In addition, on July 17, 2024, NYSERDA launched its fifth offshore wind solicitation.[137] In sum, while setbacks have resulted in delays to projects coming online, significant efforts are underway to regain ground and great progress has already been made in this regard.

6. In addition to delays caused by economic headwinds, recently revised statewide electric load projections for 2030 are also affecting CLCPA timelines. A common theme of the 2024 conferral process was the draft CES Biennial Review, which projects that the estimated 2030 statewide electric load is likely to be significantly larger than anticipated four years ago in 2020. If this increased projected load materializes, it will require even more renewable energy to come online to meet the 70% Renewable Energy Goal. As a result, recent estimates from NYSERDA and DPS lay out various scenarios and pathways to reaching that goal, one of which illustrates a potential path to achieving the goal by 2033.

7. Stakeholders were largely supportive of NYPA's expanded authority to develop renewables, establish the REACH program, facilitate a just transition away from fossil fuel, and support workforce development. Many stakeholders embraced NYPA taking a larger role in renewable development and were hopeful that their relationship to such development would be focused on community benefits. Many stakeholders expressed support for NYPA building new renewables to advance progress towards both the 70% Renewable Energy Goal and the 100% Zero Emissions Goal. Stakeholders differed on their opinions and preferences pertaining to the magnitude and pace of such efforts, with many stakeholders, especially Community and EJ representatives, expressing a heightened sense of urgency. To this end, NYPA is working diligently and expeditiously to lay the foundation necessary to deliver significant results under its expanded authority.

8. Once again, almost all stakeholders seemed to agree that NYPA's downstate small natural gas power plants (referred to by some as NYPA's "peaker" plants) should be transitioned away from fossil fuel generation. Although there is still no clear consensus on what should be done with such sites, NYPA has observed increasing interest in battery energy storage being deployed at these sites where feasible. NYPA notes that it is in active negotiations

[134] *Two Offshore Wind Project Awards Announced, To Deliver Clean Power In 2026*, Available at: https://www.nyserda.ny.gov/About/Newsroom/2024-Announcements/2024_02_29-Governor-Hochul-Announces-Two-Offshore-Wind-Project_Awards.

[135] See RESRFP23-1 Landing Page, available at: https://www.nyserda.ny.gov/All-Programs/Large-Scale-Renewables/RES-Tier-One-Eligibility/Solicitations-for-Long-term-Contracts/2023-Solicitation-Resources.

[136] *See* RESRFP24-1, available at https://www.nyserda.ny.gov/All-Programs/Large-Scale-Renewables/RES-Tier-One-Eligibility/Solicitations-for-Long-term-Contracts.

[137] *See* ORECRFP24-1, available at: https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/Focus-Areas/Offshore-Wind-Solicitations/2024-Solicitation.

with respect to battery storage at three of its SNGPP sites and recently issued an RFI for its Kent SNGPP site. Still other stakeholders want to see certain SNGPPs replaced with offshore wind interconnections, renewable energy generation, green space, or waterfront access. NYPA will continue to solicit community views on the future of these sites, and will publish the initial phase-out plan required by PAL § 1005(27-c) no later than May 3, 2025.

9. Many stakeholders expressed interest and enthusiasm about the labor-related provisions contained within NYPA's new expanded authority. These stakeholders urged NYPA integrate requirements for prevailing wage, project labor agreements, labor peace agreements, and domestic content into its plans for renewable development. Many stakeholders, especially those representing organized labor, stressed the importance of clean energy workforce training and re-training of displaced workers and provided feedback on the critical components of programs, including consideration of wraparound services such as childcare and transportation. NYPA and the New York State Department of Labor have been actively engaged on these topics, jointly executing a Cooperative Agreement in March of 2024 to collaborate on programs related to workforce training, retraining, and apprenticeship opportunities in the renewable energy field. NYPA is taking clean energy workforce development very seriously. Since enactment of its expanded authority last year, the NYPA Trustees have approved over $10 million of expenditures for various workforce training initiatives.

10. Some stakeholders again expressed concerns that NYPA's development of renewable energy would adversely affect the low-cost hydropower rates upon which many New York businesses rely. As stated in the 2023 Conferral Report, NYPA's development of renewable energy does not necessitate risks to be borne by existing NYPA customers, as suggested by some stakeholders. Along this same line of concern, one of these stakeholders suggested that NYPA "silo" the risks associated with renewable development to insulate NYPA from potentially adverse financial impacts. PAL § 1005(27-a)(f) authorizes NYPA to create wholly-owned subsidiaries for this purpose, a concept that NYPA is currently evaluating.

11. Some stakeholders expressed concerns related to the affordability of achieving the renewable energy goals of the CLCPA. Several stakeholders recommended that NYPA work to consider ways to lessen the financial impact of electric utility service. NYPA agrees that affordability is a key element of the State's transition to clean and renewable energy and is actively advancing the creation of the REACH program to help provide relief to low-income New Yorker's in disadvantaged communities. In January of 2024, NYPA filed a petition with the PSC to establish the REACH program to provide bill credits for low-income households in disadvantaged communities. The bill credits will be funded from a portion of revenues from new renewable energy generation projects developed or contracted for by NYPA and designated for REACH, and other authorized contributions. NYPA, in collaboration with NYSERDA and DPS, has adopted valuable public feedback to help craft the proposed program which was designed to build upon existing efforts, such as the Energy Affordability Program and Statewide Solar-for-All, to provide meaningful benefits to low-income electricity customers in disadvantaged communities as the State transitions to a clean energy economy.

12. Several stakeholders suggested that the State should focus on other technologies, not just wind and solar, to produce electricity, although we note that these technologies may not qualify as renewable energy under the Climate Act. In 2024, NYPA saw increased advocacy for nuclear energy as a means to achieve the 100% Zero Emissions Goal.

13. Many stakeholders commented on the pace at which renewable energy projects move through the NYISO interconnection process. The 2023 conferral process highlighted that this problem is not unique to New York, and interconnection queues across the United States have seen unprecedented increases in the amount of new proposed generation seeking to connect. In 2023, conferral stakeholders were hopeful that this problem would be resolved through the ongoing implementation of FERC Order No. 2023. As of May 2024, the NYISO has filed amendments to its tariffs and procedures to implement FERC Order No. 2023, which has replaced historic interconnection procedures with annual cluster studies designed to expedite the timeframes in which new generation will be able to interconnect to the New York grid. The NYISO began implementing its reformed process immediately after filing it at FERC. According to the NYISO, the new interconnection process is expected to be faster, completing in 590 days or about 1.6 years, compared to the previous process that took between three and four years.

14. New York is currently on track to achieve both the 6 GW Distributed Solar Goal and the 10 GW Distributed Solar Goal, thanks in large part to the success of the NY-Sun and VDER programs, as well as significant contributions from LIPA and others. Some stakeholders have advocated for this goal to be expanded, to as much as 20 GW of distributed solar by 2035.

15. Many stakeholders expressed concern about the continued reliability of New York's power system as it becomes increasingly reliant on intermittent resources, such as wind and solar. NYPA notes the State's continued progress on multiple fronts that will help New York maintain a reliable electric system as it progresses toward achieving the CLCPA goals. This progress includes movement toward achieving the energy storage goals of the CLCPA, such as the PSC's recently issued Storage Order, the commissioning of NYPA's Northern New York Energy Storage Project, the advancement of significant transmission upgrades, including NYPA's Smart Path Connect, Central East Energy Connect, and Propel NY projects. In the Storage Order, the PSC noted that Long Island and New York City are well-situated for the replacement of peaker plants with energy storage resources.

APPENDIX A

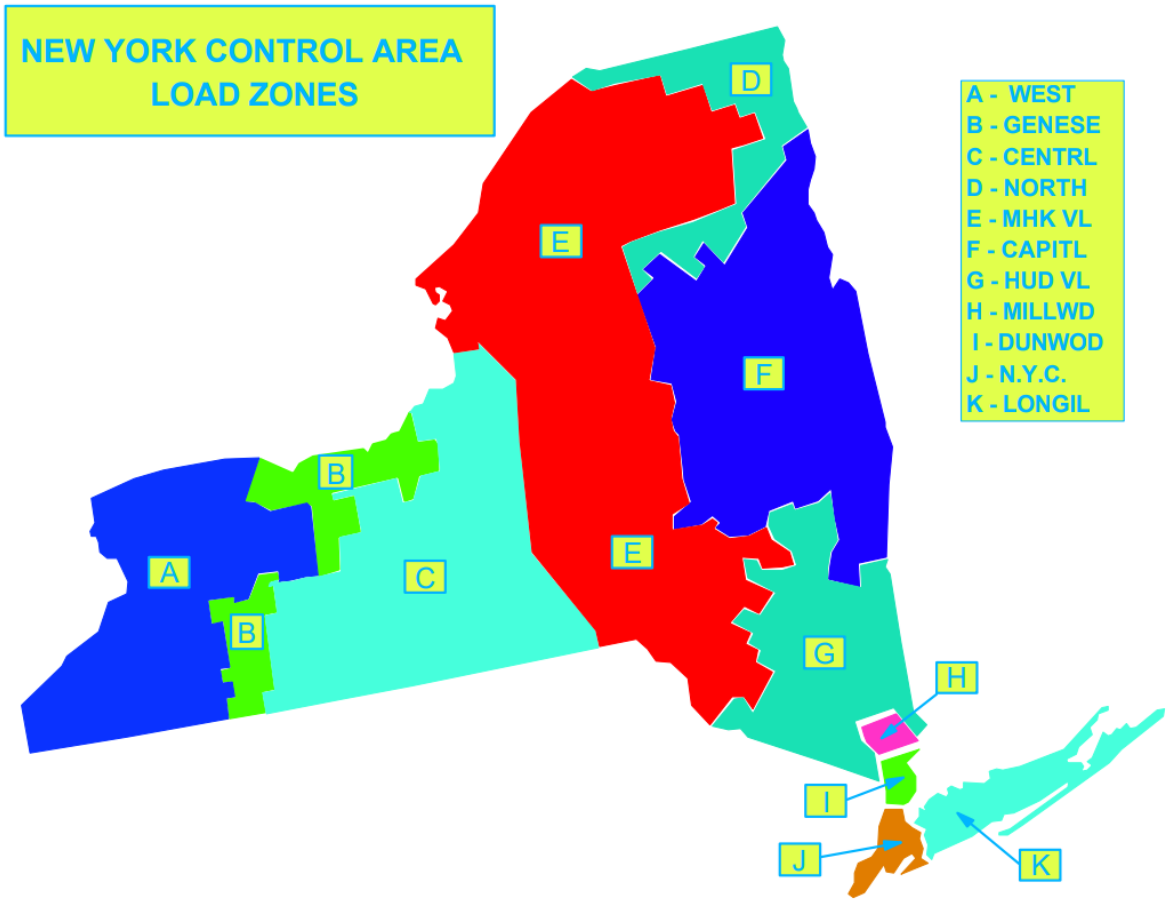
LIST OF CONFEREES

1. Alliance for Clean Energy New York
2. Bloom Energy
3. Bronx Council for Environmental Quality
4. Coalition of Attorneys Representing Municipalities and Citizens in New York State Wind and Solar Project Siting Proceedings
5. Cornell University, Atkinson Professor of Ecology & Environmental Biology
6. El Puente
7. Elevate Renewables F7 LLC
8. Independent Power Producers of New York
9. International Brotherhood of Electrical Workers Utility Labor Council of New York State
10. New York Association of Public Power
11. New York Conference of Mayors
12. New York Energy Alliance
13. New York Energy & Climate Advocates
14. New York League of Conservation Voters
15. New York Solar Energy Industries Association
16. New York State American Federation of Labor and Congress of Industrial Organizations
17. New York State Association of Counties
18. New York State Association of Electrical Workers
19. New York State Association of Towns
20. New York State Building & Construction Trades Council
21. New York State Laborers' Political Action Committee
22. NY Renews
23. PEAK Coalition
24. Power for Economic Prosperity
25. Public Power NY Coalition
26. Public Utility Law Project
27. Rewiring America
28. Sabin Center for Climate Change Law at Columbia University
29. South Bronx Unite
30. Sustainable Westchester

STATE AGENCIES AND ENTITIES CONSULTED

1. New York Independent System Operator
2. New York State Public Service Commission
3. New York State Energy Research & Development Authority

6.6 NYISO New York Control Area Load Zones



Source: NYISO NYCA Load Zones