## 2800 ANNUAL REPORT 2023 OPERATING

### **FACILITIES**

# **NEW YORK POWER AUTHORITY:**

ST. LAWRENCE-FRANKLIN D. ROOSEVELT POWER PROJECT

Type: Hydroelectric

Location: Massena, St. Lawrence County

Net Dependable Capacity: 823.0MW\*

First Commercial Power: July 1958

2023 Net Generation: 7,126.8 GWh

NIAGARA POWER PROJECT

Type: Hydroelectric

Location: Lewiston, Niagara County

Net Dependable Capacity: 2,675.0MW\*

First Commercial Power: January 1961

2023 Net Generation: 15,473.7 GWh

BLENHEIM-GILBOA PUMPED STORAGE

POWER PROJECT

Type: Pumped Storage/Hydroelectric Location: North Blenheim and Gilboa,

**Schoharie County** 

Net Dependable Capacity: 1,167.5MW\*

First Commercial Power: July 1973

2023 Gross Generation: 299.5 GWh

RICHARD M. FLYNN POWER PLANT

Type: Gas/Oil

Location: Holtsville, Suffolk County

Net Dependable Capacity: 149.5MW\*

First Commercial Power: May 1994

2023 Net Generation: 401.9 GWh

FREDERICK R. CLARK ENERGY CENTER

Function: Coordinates NYPA system operations

Location: Marcy, Oneida County

Opened: June 1980

### **SMALL HYDRO FACILITIES**

Located on reservoirs and waterways around the state, these facilities include the Ashokan Project, Gregory B. Jarvis Plant, Crescent Plant and Vischer Ferry Plant

Combined Net Dependable Capacity: 36.8 MW\* 2023 Net Generation: 164.9 GWh

#### SMALL CLEAN POWER PLANTS

Type: Gas

Location: Six New York City sites and Brentwood, Suffolk County Net Dependable Capacity: 456.8 MW\*

First Commercial Power: June 2001

2023 Net Generation: 489.9 GWh

#### EUGENE W. ZELTMANN POWER PROJECT

Type: Gas/Oil

Location: Astoria, Queens County

Net Dependable Capacity: 508.2 MW\*

First Commercial Power: December 2005

2023 Net Generation: 3,412.9 GWh

<sup>\*</sup> Net Dependable Capacity is a calculated average of the Winter and Summer net capability reported in the 2023 New York Independent System Operator Load & Capacity Data Report (Gold Book).

## **HUDSON TRANSMISSION PROJECT (HTP)\*\*\***

Type: High-Voltage Transmission Line

**Location**: Seven-mile cable, 230-kV line from Public Service Electric & Gas Co.'s Bergen Substation in Ridgefield, NJ, to Consolidated Edison Co.'s West 49th St. Substation (345 kV line from the HTP converter

station to NY) in Manhattan. (Includes approximately 3 ½-mile Hudson River underwater section)

Capacity: 660 MW

First Commercial Operation: June 2013

Average 2023 Availability to Transmit Power: 97.4%

Availability Hours: 8,532 Hours

\*\*\* NYPA has a 20-year firm transmission capacity purchase agreement with Hudson Transmission Partners, LLC, the developer, owner and operator of the line, which connects with a neighboring regional transmission organization, PJM Interconnection. NYPA contracts for 87 percent of HTP's transmission capacity, or up to 575 MW.

#### NYPA TRANSMISSION FACILITIES

1,550.5 circuit-miles of alternating current transmission lines.

Size	Underground	Overhead	Total_
765kV	0.0	155.2	155.2
345kV	42.8	977.2	1,020.0
230kV	0.0	338.1	338.1
115kV	1.8	35.4	37.2_
Total	44.6	1,505.9	1,550.5

# NEW YORK STATE CANAL CORPORATION - CANAL SYSTEM:

The Canal Corporation runs the New York State Canal System, which includes the Erie, Champlain, Oswego, and Cayuga-Seneca canals. Spanning 524 miles, the waterway links the Hudson River with the Great Lakes, the Finger Lakes, and Lake Champlain. The Canal System includes the Erie Canalway Trail, a multi-use trail designed to accommodate pedestrians, bicyclists, and cross-country skiers. The Canal System includes 57 locks, 23 guard gates, 19 movable bridges, 2 guard locks, and other Canal structures and adjacent property.

# 2023 Accomplishments - New York Power Authority and New York State Canal Corporation

# **Expanded Authority/Renewables**

**Expanded Authority:** The 2023-24 Enacted State Budget provided NYPA with new authority to develop, own and operate renewable energy generating projects—either alone or in collaboration with other entities—to assist the state in meeting its bold clean energy targets, including producing 70% of the state's electricity from renewable sources by 2030 and creating a zero-emission statewide electrical system by 2040.

<u>Conferral Process</u>: As part of our expanded authority, NYPA began the conferral process, gathering input from state agencies and key stakeholders regarding progress on the implementation of New York's renewable energy goals as outlined in the state's Climate Leadership and Community Protection Act (CLCPA).

The Power Authority used information collected during those conversations to publish its first Conferral Report in December. The Conferral Report discusses the state's progress toward meeting the targets established in the CLCPA and the timing impacts of the generator interconnection process of the New York Independent System Operator (NYISO).

It also summarizes the views of stakeholders on these issues and NYPA's proposed role in developing new renewable generation gathered from stakeholders.

# New Leadership

<u>Justin Driscoll:</u> Justin Driscoll was confirmed by the New York State Senate by operation of law as permanent President and CEO.

<u>Daniella Piper and Alexis Harley</u>: NYPA expanded its executive leadership team to deliver on its clean energy mission, including new goals defined in the 2023-24 Enacted State Budget. Daniella Piper, an internal leader and expert in power systems and digital technology, was promoted to Chief Innovation Officer and Alexis Harley was hired as Chief Risk and Resilience Officer.

<u>Vennela Yadhati</u>: NYPA created a new senior leadership role to deliver upon its expanded authority to develop, own and operate renewable energy generating projects to assist the state in advancing its clean energy targets. Vennela Yadhati was named NYPA's first Vice President, Renewable Project Development.

<u>Saul Rojas</u>: NYPA created a senior leadership position to oversee its evolving and expanding transmission business. Saul Rojas, who previously led NYPA's Southeast New York region, was promoted to Senior Vice President, Transmission.

<u>Maribel Cruz:</u> Maribel Cruz Brown was appointed as Senior Vice President, Customer Solutions.

## **Energy Industry Talent Development**

<u>Labor Training</u>: NYPA partnered with the Energy Storage and Microgrid Training and Certification Program (ESAMTAC) to establish New York State as a major training hub for workforce development, providing New Yorkers with the tools they need to succeed in the growing clean energy economy. The Power Authority is providing ESAMTAC with \$75,000 to deploy a groundbreaking virtual reality experience to train New York energy sector workers in rapidly advancing clean energy technology. NYPA, the first public power utility in the country to participate, will offer enrollment into the groundbreaking virtual reality training exercise to its qualified union technicians and electricians.

# **Decarbonization Leadership**

<u>Decarbonization</u>: NYPA began its role as administrator of the state's Decarbonization Leadership program, a decarbonization and electrification initiative that includes developing energy and emissions profiles of the state's largest carbon-emitting facilities and decarbonization action plans that will guide state agencies on facility improvements that will reduce carbon emissions in support of the CLCPA.

# **Transmission**

<u>Y-49</u>: NYPA completed a \$70 million upgrade and modernization of its Long Island Sound Cable (also known as Y-49), an underground transmission line that transverses the Long Island Sound from Westchester County to Nassau County, carrying up to 600 megawatts of electricity to Long Island. The transmission project accelerates progress against New York State's goal for 70 percent of the state's electricity to come from renewable sources by 2030.

<u>Smart Path</u>: NYPA completed its Smart Path clean energy transmission project in the North Country, an upgrade of 78 miles of transmission lines that span from Massena in St. Lawrence County to Croghan in Lewis County. The milestone helps put New York on track to meet its nation-leading clean energy goals, outlined in the CLCPA, including 70 percent renewable energy generation by 2030 and a zero-emissions electricity sector by 2040.

<u>Propel NY Energy</u>: NYPA and New York Transco announced that their proposed 90-mile electric transmission project—Propel NY Energy—was selected by the New York Independent System Operator to achieve the Long Island Offshore Wind Export Public Policy Transmission Need Project Solicitation. Propel NY Energy will strengthen the backbone of the electric grid with increased transmission capacity to help inject more clean, renewable energy from offshore wind facilities into the statewide energy grid.

<u>Central East Energy Connect</u>: NYPA and project partner LS Power Grid New York announced the completion of Central East Energy Connect, an upgrade of transmission lines between Marcy in Oneida County and New Scotland in Albany County to relieve congestion and enable integration of more renewable energy into the state power grid. The 93-mile transmission line project involved the installation of more than 650 new steel transmission monopoles as well as the construction of two state-of-the-art transmission substations in Rotterdam and Princetown, both in Schenectady County.

The newly rebuilt transmission corridor can carry nearly five times the amount of electricity as the old lines, enough to power approximately 2 million homes.

<u>Clean Path and Number Three Wind</u>: NYPA and its partners Invenergy and energyRe announced the completion of the 103.9-megawatt Number Three Wind Energy Center, marking the first Clean Path NY renewable generation asset to reach operation. Number Three Wind, developed and constructed by Invenergy, is one of more than 20 new wind and solar assets in Clean Path NY's 3,800-megawatt renewable power portfolio, which will deliver 7.5 million megawatt-hours of emissions-free, clean electricity to New Yorkers every year.

<u>Drones</u>: NYPA's Board of Trustees approved the first phase of funding for a \$37.2 million Unmanned Aerial System (drone) program to roll out new transmission inspection capabilities over the next five years and position the Power Authority as an industry leader in robotic initiatives. The formalization and expansion of the program is aimed at improving the safety and efficiency of NYPA's operations, reducing costs, and advancing NYPA's role in leading efforts to realize New York's clean energy future.

## Generation

<u>Next Generation Niagara</u>: The largest capital project in NYPA's history advanced on multiple fronts at the Niagara Power Project—New York State's biggest electricity producer. The first of 13 turbine units in the project's Robert Moses Power Plant was shut down to undergo a full refurbishment. One by one, as part of the more than \$1 billion dollar initiative, the units will be rebuilt to maximize their capabilities for future generations.

<u>Niagara Power Project Control Room</u>: The space that contains remote operating controls for the entire Niagara Power Project underwent its first major upgrade since the project opened in 1961. The upgrades help ensure that the largest source of clean electricity in New York State and one of the largest hydropower facilities in the country will continue to help New York State meet its clean energy goals.

<u>Blenheim-Gilboa Pumped Storage Power Project</u>: The project celebrated its 50<sup>th</sup> anniversary with a free community event that included a drone light display. The project, which provides power to the grid on demand, first began generating power on July 5, 1973.

# **Electric Vehicles**

**EVolve NY:** NYPA continued the expansion of its EVolve NY electric vehicle (EV) charging network, which provides drivers with the ability to reach any part of the state. By year's end, EVolve NY was the largest open-access high-speed charging network in New York State, with nearly 150 charging ports at 38 sites along major travel corridors and in urban hubs. NYPA aims to have 400 charging ports in place by the end of 2025. EVolve NY added locations throughout the state in 2023, including the Southern Tier (Hancock), North Country (Potsdam), Albany and Oswego.

<u>NEVI Funds</u>: NYPA and the state Department of Transportation reached an agreement that allows the Power Authority to use approximately \$20 million from the Federal Highway Administration to add EVolve NY charging stations in at least 20 locations, with most expected

to be complete by the end of 2024. The money is the first installment of \$175 million in National Electric Vehicle Infrastructure (NEVI) funds that the administration will deliver to New York State over a five-year period. The first EVolve NY chargers paid for with NEVI funds were made operational in Kingston in December.

NYPA and the New York City Department of Transportation: NYPA and NYC DOT announced an agreement to create up to 13 EV fast-charging hubs at municipal parking facilities across the city. Collectively, the hubs will feature roughly 50 fast-charging plugs. This investment will accelerate the adoption of electric vehicles across the city, provide more equitable access to charging, and advance Mayor Eric Adams' administration's plan to transition 100,000-plus high-volume for-hire vehicles to zero-emissions by 2030.

MTA Bus Depots: NYPA began management of a project for the Metropolitan Transportation Authority that includes construction of 53 state-of-the-art overhead electric bus chargers at depots in Manhattan, Queens, Staten Island and Brooklyn. The first phase of the multi-year project includes building 67 overhead and cabled dispensers for New York City Transit across five locations to prepare for 60 new electric buses expected to arrive early next year.

The modernized electric infrastructure will support the MTA's growing zero-emissions bus fleet throughout New York City, reducing carbon emissions, addressing climate change, and serving as a model for other metropolitan bus fleet operators.

## Solar

**Solar Generation:** NYPA installed the first solar generation project at one of its generation facilities, adding 468 solar panels on the roof of the Eugene W. Zeltmann Power Project in Astoria, Queens. The 175-kilowatt solar array will be used to offset the cost of energy usage at the site. The installation was recommended by NYPA's sustainability team, which identified locations where distributed energy resources could be placed at the Power Authority' generation facilities.

**NYC Fire Departments:** NYPA helped the New York City Department of Citywide Administrative Services manage the installation of solar photovoltaic (PV) systems at six New York City Fire Department (FDNY) fire houses in Queens and Brooklyn. In addition to generating emissions-free energy, these systems use battery storage to ensure that the firehouses remain operational during blackouts, brownouts, or storms if electric service is interrupted. The project advances the city's goal of reducing emissions from city government operations.

<u>Agrivoltaic Leading Practices</u>: NYPA announced the release of a report, Agrivoltaic Leading Practices, that recommends proven and innovative approaches on integrating dual-land use for agriculture and solar energy production. The report is based on a study that determined a best-practice agrivoltaic site ideally involves stakeholder collaboration, community education, policy incentives, site safety practices and site-individualized crop selection and solar array design.

<u>Multi-Year Forecasting Study</u>: NYPA, along with its research partners, completed a multi-year study to help New York State's growing solar industry deploy weather forecasting technology to better anticipate power generation and improve electric grid reliability. The project addresses challenges raised by the uncertainty related to solar output by offering advanced forecasting

methods and making a roadmap to help maintain grid reliability, optimize production of renewables and reduce operating costs.

<u>Department of Corrections</u>: NYPA deployed more than 30 megawatts of solar energy throughout upstate New York through the design and implementation of systems at five New York State Department of Corrections and Community Supervision facilities. Combined, these systems comprise more than 75,000 solar panels—enough to power 7,000 homes.

<u>Storage Plus</u>: NYPA completed the first solar-plus-storage project by a municipality on Long Island, in the Town of East Hampton. The rooftop array makes the Parks Department building at the Town Hall campus the first building in East Hampton to achieve the goal of net zero carbon emissions from electricity generation.

**Brooklyn and Queens**: NYPA and the City of New York announced the start of construction to install solar PV systems at more than 60 city-owned buildings in Brooklyn and Queens. The work will add more than 30 megawatts (MW) of solar PV generating capacity and up to 10 MW of large-scale battery storage to provide energy to power city operations.

## **Economic Development**

Total Economic Development Awards Approved in 2023: Throughout 2023, the NYPA board has awarded more than 100 businesses with nearly 720 MW of low-cost power, supporting 26,300 jobs and spurring more than \$22.1 billion in private capital investments. In total, NYPA supports more than 455,000 jobs and has spurred nearly \$53.8 billion in capital investments.

**ReCharge NY Awards:** In 2023, the NYPA board approved allocations of more than 169 MW of low-cost power under the ReCharge NY program to 80 businesses that support 24,670 jobs—3,800 newly created—and spur nearly \$20.8 billion in private capital investments throughout the state.

<u>Power Proceeds Awards</u>: The NYPA Board of Trustees awarded more than \$2.8 million to six organizations under its power proceeds programs. The awards will spur more than \$32.3 million in capital investments and support 80 jobs—36 newly created.

Atlas Copco Group: At its February 2023 meeting, the NYPA board awarded Edwards Vacuum, a subsidiary of Atlas Copco Group and a manufacturer of vacuum and abatement equipment in the semiconductor industry, a 4.9-MW low-cost Niagara hydropower allocation. The firm will construct a new manufacturing facility at the Science & Technology Advanced Manufacturing Park (STAMP), bolstering New York's semiconductor supply chain. The NYPA economic development award will spur more than \$212 million in capital investments and create 343 jobs. Additionally, the NYPA board approved 2.1 MW of High Load Factor power that NYPA will procure for Edwards on the energy market.

<u>Amazon</u>: The NYPA board approved a nearly 10.7-MW low-cost Niagara Power Project hydropower allocation to Amazon at its March 2023 meeting in support of the firm's construction of a \$550 million e-commerce storage and distribution center in the Town of Niagara that will receive, store, package and fulfill online customer orders. The project will lead to the creation of 1,000 new, permanent, full time-time jobs at the facility in addition to hundreds of new construction jobs.

<u>Village of Greene</u>: In March 2023, the NYPA Board of Trustees approved a 250-kilowatt (kW) low-cost hydropower allocation to the Village of Greene in Chenango County in New York's Southern Tier region under the Power Authority's Industrial Economic Development program. The hydropower allocation will support an expansion by Cocojune, a New York-based food company that specializes in producing organic coconut yogurt using plant-based ingredients. Cocojune will construct a new facility in the Village of Greene and outfit it with yogurt-filling machinery and packaging equipment, spurring nearly \$700,000 in capital investments and creating 24 jobs in the region.

<u>Plug Power:</u> The NYPA Board of Trustees approved a 50-MW low-cost Niagara hydropower allocation to Plug Power at the Genesee County STAMP site, at its May 2023 meeting. The award supports the firm's \$387 million green hydrogen fuel production expansion project that will lead to the creation of 19 jobs. The NYPA board also approved an additional 62 MW of High Load Factor power that NYPA will procure for Plug Power on the energy market at the meeting. The Power Authority supports Plug Power at three other locations: Slingerlands, Latham, and West Henrietta. In total, NYPA supports Plug Power with 272 MW of low-cost power, supporting more than 2,100 jobs throughout the state.

EnerPlate and CWT: At its May 2023 meeting, the NYPA board approved a 16-MW allocation of low-cost Niagara hydropower to EnerPlate, a Niagara Falls-based company that provides electroplating services for use in the manufacturing of grid-scale battery systems. The firm is investing more than \$105 million to refurbish its 90,000 square-foot facility and to procure equipment for electroplating—a process that produces a metal coating on substrates, or base materials such as copper or tungsten, to improve properties like electrical conductivity. The enhanced materials are used by battery manufacturers specializing in energy storage from clean sources, such as solar and wind. EnerPlate's expansion will lead to the creation of 160 jobs in the Niagara Falls region.

# Energy Storage

First State-Owned Utility-Scale Battery Energy Storage Facility: NYPA began operating New York's first state-owned utility-scale battery energy storage facility in the North Country's Franklin County. The 20-megawatt facility, which is maintained by NYPA's St. Lawrence-Franklin D. Roosevelt Power Project, connects into the state's electric grid, helping to relieve transmission congestion, especially during times of peak demand. Known as the Northern New York Energy Storage Project, the facility will serve as a model for future storage systems and create a more reliable and resilient power supply in a region heavily powered by renewable energy.

<u>Battery Energy Storage System</u>: A first-of-its-kind battery energy storage system using patented, high-safety, lithium-ion superCell technology was put into service at NYPA's administrative offices in White Plains. The system, which is a demonstration project, delivers energy peak-shaving capabilities by reducing the peak electricity load typical of a commercial building.

# **Supplier Diversity**

<u>40th Anniversary:</u> NYPA hosted hundreds of diverse business owners and industry professionals at its 2023 Supplier Diversity Expo to celebrate the 40th anniversary of the Power Authority's supplier diversity program. The expo was part of an ongoing commitment by NYPA and the Canal Corporation to invest in the growth and development of small and diverse businesses in New York State.

# Energy Efficiency

**500,000 Lights:** NYPA achieved its goal of replacing 500,000 streetlights with energy-efficient SMART LED fixtures throughout the state through its Smart Street Lighting NY program. The ongoing installation of nearly 4,000 streetlights throughout the Town of Ramapo, financed and implemented by NYPA, achieved the goal of replacing 500,000 streetlights with LED technology nearly three years ahead of schedule.

<u>Town of Ramapo in Rockland County</u>: installed energy-efficient SMART (Self-Monitoring Analysis and Reporting Technology) LED streetlights throughout the town as part of the Power Authority's Smart Street Lighting NY program.

<u>Prototype Carbon Intensity Dashboard</u>: Through a collaboration with the Electric Power Research Institute, NYPA developed a prototype carbon intensity dashboard that will enable building managers to report their electricity consumption and consider load management opportunities to reduce carbon emissions more accurately. The technology demonstration, using advanced machine learning to analyze and predict changes in grid carbon emissions, shows how data can quantify decarbonization and inform energy management decisions.

<u>Clarkstown</u>: NYPA announced it will replace all the lights in the Town of Clarkstown's police headquarters and justice court building with energy-efficient LED lighting fixtures. The project supports the goals of the state's CLCPA.

American Public Power Association Energy Innovator Award: honoring utilities that have developed or applied creative, energy-efficient techniques and technologies to their work to provide better service to electric customers or projects that increase the efficiency of utility operations or resource efficiency.

Induction Stove Challenge: NYPA and the New York State Energy Research and Development Authority (NYSERDA) launched the Induction Stove Challenge, a program that calls on appliance manufacturers to design and produce energy-efficient, electric cooking systems to replace existing fossil fuel stoves while avoiding costly electrical upgrades in New York City Housing Authority (NYCHA) buildings. The units will provide best-in-class, comfortable cooking as well as health and quality of life benefits to thousands of NYCHA households.

<u>Clean Heat for All Challenge</u>: NYPA, NYSERDA and NYCHA also collaborated on the Clean Heat for All Challenge to develop a new electrification product that can better serve the heating and cooling needs of existing multifamily buildings and hasten the transition to fossil-fuel free heating sources. By year's end, 72 cold climate packaged window heat pump units were set to be installed at NYCHA apartments to provide heating and cooling while reducing greenhouse

gas emissions. The units will be comprehensively monitored and analyzed to incorporate learnings before moving forward with the widespread installation of 30,000 units in future years.

Bronx Community College: NYPA partnered with the City University of New York to implement a boiler plant upgrade at Bronx Community College that will improve the reliability of the campus' heating system. The improvements directly support BuildSmart2025, a statewide energy efficiency program administered by NYPA, aimed at reducing energy usage in state facilities by 11 trillion British Thermal Units by the end of 2025—the equivalent of removing nearly 500,000 cars from the road.

**Rochester**: NYPA announced \$500,000 in Smart Cities grant funding to support the purchase of smart nodes for Rochester's streetlighting system. The smart nodes will allow the system operator to control lighting and dimming, while also reporting errors or outages for individual fixtures. The grant will cover the entire cost of purchasing the equipment.

<u>Port Authority and Office of General Services</u>: NYPA and the Port Authority completed the installation of energy-efficient LED lights throughout One World Trade Center, the tallest building in the United States. NYPA also partnered with the Office of General Services to replace nearly 1,700 lights in the Adam Clayton Powell, Jr. State Office Building in Harlem with energy-efficient LED lighting fixtures. The projects support BuildSmart 2025, which is administered by NYPA.

#### STEM

<u>Stem Curriculum in Long Island</u>: With several offshore wind projects in development on Long Island, NYPA is incorporating the technology into its STEM programs statewide and launching the curriculum in Long Island classrooms. NYPA also made lessons about renewable energy available to educators statewide through its Virtual Learning Center.

<u>Scholarships</u>: NYPA awarded \$10,000 scholarships to 10 academically accomplished New York State high school seniors who plan to pursue careers in an energy-related field. The Future Energy Leaders Scholarship awards program illustrates NYPA's commitment to supporting academic pathways to increase the number of professionals of color ready to take on the challenges of the energy industry upon graduation.

P-TECH: In partnership with Pathways in Technology Early College High School (P-TECH), NYPA launched its third annual internship program designed to increase the number of students from disadvantaged communities pursuing studies and careers in science, technology, engineering and math. The educational model focuses on college attainment and career readiness and offers students in disadvantaged areas the opportunity to develop skills and competencies that will translate directly to competitive careers. Forty-one students participated in the paid internship program in 2023—an increase from 28 in 2022—and were matched with mentors and assigned to various energy-related projects.

**Rooftop Garden in Queens:** NYPA partnered with the Variety Boys and Girls Club of Queens to expand a rooftop garden that will provide intergenerational learning opportunities for students and community members. The project advances NYPA's longstanding commitment to support disadvantaged communities, including the development of urban agriculture to create a more sustainable state.

<u>First of Four Green Classrooms in Bronx at PS 25 The Bilingual School</u>: The hydroponic lab, which grows crops indoors without soil, teaches students agricultural skills, environmental

science, and other sustainability-based programming. The NYPA-supported program educates young people about STEM topics and is geared to inspire them to develop an interest in and understanding of the environment and sustainable food production.

# Sustainability/Finance

<u>First Annual Integrated Report</u>: details the operations and activities carried out by the Power Authority and the Canal Corporation in 2022. The report takes an integrated approach to communicating the Power Authority's performance, bringing together environmental, social and governance data and audited financial information to present a more comprehensive view of NYPA's value creation process.

<u>Green Bonds</u>: NYPA hit the bond market with a \$751 million green bond deal. Proceeds funded reimbursement to NYPA for prior capital expenses and for the completion of its part of the "Smart Path Connect Project."

East Buffalo Indoor Food Production: NYPA unveiled an indoor food production container in East Buffalo to advance urban farming and increase awareness about hydroponic gardening, sustainability, and nutrition for underserved New Yorkers. The facility will grow vegetables and herbs year-round in an indoor environment—with no soil. Produce will be distributed to the community and the learnings from the low-energy farming methods will help New York State achieve its clean energy goals and reduce greenhouse gas emissions associated with food production.

<u>National Pollinator Week:</u> NYPA established new habitats for pollinators near its visitor centers in Lewiston and Massena. The new habitats will better protect the bees, butterflies and other pollinators that support the healthy functioning of our ecosystems.

Bronx Green Action Challenge: NYPA provided \$1 million in funding for the inaugural Bronx Green Action Challenge, which was won by Bronx Community College. This first-of-its-kind environmental sustainability challenge calls for the college to develop and implement a plan to improve campus sustainability and reduce its environmental footprint. Part of the funding will also be used to establish a green jobs training program.

# **Canals**

<u>Tugboats</u>: NYPA and the Canal Corporation announced a strategic investment in the future of the New York State Canal System through the procurement of four new maintenance marine vessels. The tugboats will be operated by Canal Corporation personnel and positioned along the 524-mile Canal System to support the continued operation and maintenance of the statewide navigable waterway. The first two tugboats are scheduled to be delivered in 2025 and the others are planned for delivery in 2027.

<u>Brockport Bridge</u>: NYPA and the Canal Corporation announced the commencement of construction of a pedestrian bridge over the Erie Canal in the Village of Brockport, Monroe County. The crossing is the first new large-scale infrastructure project under New York State's Reimagine the Canals initiative and will connect the SUNY Brockport campus to the Empire State Trail. The bridge is expected to open in 2025.

<u>Medina</u>: A multiphase effort to enhance the Village of Medina's connection to the Erie Canal through the Reimagine the Canals initiative was initiated. In partnership with local municipal and philanthropic leaders, as well as assistance from regional educational, civic, and cultural institutions, NYPA and the Canal Corporation are pursuing plans to improve the connectivity and access to the canal waterfront and adjacent Erie Canalway Trail through the village. In addition, a series of enhancements through safety upgrades along the trail, new boater and trail amenities and curated public art installations will encourage boaters, trail users and other visitors to experience and enjoy the community's canalside business district.

<u>Canals Iconic Lighting Program</u>: A program of the Reimagine the Canals initiative was internationally recognized with a prestigious award for the illumination of infrastructure along the New York State Canal System. The Office for Visual Interaction, a New York City-based architectural lighting design firm, and the Reimagine the Canals Iconic Lighting Program, won in the "Community Building Lighting" category.

P-TECH and Canals: NYPA and the Canal Corporation collaborated with the Buffalo Maritime Center to provide a technical trade and skill-building opportunity for students participating in the Pathways in Technology Early College High School (P-TECH) program. Two interns helped construct a traditionally built, full-sized replica of the Seneca Chief canal boat, which will set sail from Buffalo to New York Harbor in 2025 to commemorate the bicentennial of Gov. DeWitt Clinton's 1825 inaugural voyage along the Erie Canal.

<u>The Upstate Flood Mitigation Task Force</u>: concluded its year-long investigation into the impacts of flooding throughout the Mohawk and Oswego River basins and identified a series of recommendations that can be taken to mitigate future flood damages.