

Canal Corporation

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Introduction



About this Sustainability Plan

OVERVIEW AND SCOPE

The New York Power Authority's (NYPA) mission is to lead the transition to a carbon-free, economically vibrant New York through customer partnerships, innovative energy solutions, and the responsible supply of affordable, clean and reliable electricity.

VISION2030, NYPA's ten-year strategic plan approved in December 2020, identifies five key *strategic priorities* we must act on to realize our ambition. As a *foundational pillar* of VISION2030, ESG (Environmental, Social, Governance) is viewed as an enterprise-wide effort that is critical to accomplish our mission.

NYPA's ESG ambition is to deliver on a best-in-class sustainability strategy

to meet the present and future needs of our stakeholders and enhance long-term environmental, social, governance and economic performance.

This 2021-2025 Sustainability Plan serves as a road map to help bring this ambition to life. The Plan outlines the steps NYPA and our subsidiary, the New York State Canal Corporation (Canals), are committed to taking to advance sustainability efforts across 15 material ESG focus areas over 2021-2025.

PURPOSE

This plan describes the goals and strategies that we have identified for each of our 15 material ESG topics, in alignment with VISION2030, industry leading practices and New York State policy.



The strategies contained in this plan reflect numerous inputs, including the **Intergovernmental Panel on Climate Change's (IPCC) Special Report on Global Warming of 1.5°C** and the **United Nations Sustainable Development Goals (UN SDGs)**. Further, we recognize NYPA's pivotal role in achieving the state's bold sustainability agenda, and have aligned our ambitions to New York State's **Climate Leadership and Community Protection Act (CLCPA)**.

The Sustainability Plan has been developed with guidance and input from business units

and department leaders across the organization, including the Sustainability Advisory Council (SAC), subject matter experts and other key stakeholders. **It is a living document that will evolve as necessary to align with VISION2030 implementation.**

Beginning in 2021, NYPA will publish an annual Sustainability Report to communicate our progress, highlighting key ESG achievements and transparently disclosing performance metrics in alignment with leading ESG reporting and disclosure frameworks and standards.

CLCPA TARGETS

70%
RENEWABLE
ENERGY
BY 2030

100%
ZERO CARBON
ELECTRICITY
BY 2040

40%
REDUCTION IN
GHG EMISSIONS
BY 2030

85%
REDUCTION IN
GHG EMISSIONS
BY 2050

35%
BENEFITS TO
DISADVANTAGED
COMMUNITIES

6 GW
DISTRIBUTED
SOLAR
BY 2025

3 GW
ENERGY
STORAGE
BY 2030

9 GW
OFFSHORE
WIND
BY 2035

Sustainability Governance

ENSURING EFFECTIVE, IMPACT-DRIVEN MANAGEMENT AND OVERSIGHT

NYPA and Canals recognize the importance of strong governance to achieving our sustainability goals and rely on clear policies, practices and controls to guide our sustainability efforts.

Our Sustainability Policy defines responsibilities for ESG planning, executing, monitoring and reporting, and calls for the creation of long-term and annual action plans for program implementation.

NYPA and Canals' inclusive sustainability governance framework applies to leadership at the highest levels of the organization and spans across all key business units to ensure accountability for our actions and performance.

Key stakeholders in this evolving oversight and management structure include, but are not limited to:

- > **Board of Trustees:** provides the vision and oversight on strategic ESG priorities and oversees policies, programs and performance related to sustainability.
- > **Chief Executive Officer (CEO) and Executive Management Committee (EMC):** lead and guide the management of ESG strategy and goal setting, supporting the board's governance of ESG-related issues and ensuring the achievement of goals identified in the Sustainability Plan.
- > **EMC's ESG Sponsors:** support the board's governance of ESG-related issues and work directly with the Sustainability Department to provide guidance on sustainability strategy, goal setting and reporting.
- > **Sustainability Department:** provides strategic direction, oversight and reporting for ESG issues, including spearheading the development of the Sustainability Plan. Sustainability engages with





the EMC, to which it reports, and the SAC on plan development and implementation and provides support to business units on day-to-day execution.

> **Sustainability Advisory Council (SAC):** serves as the cross-functional collaborative body to manage ESG-related efforts and ensure successful implementation of the goals, targets and strategies outlined in the Sustainability Plan. The SAC consists of heads of all relevant departments.

REPORTING AND DISCLOSURE

To ensure accountability and transparency, NYPA and Canals will report and disclose comprehensive data related to the implementation of sustainability goals.

This approach to sustainability performance management and reporting will evolve to ensure the most relevant data is accurately and consistently captured and leveraged for decision-making across the organization. NYPA is developing a robust data management system to support this effort.

Central to our ESG disclosure efforts is the annual **Sustainability Report**. Starting with the 2020

reporting cycle, NYPA and Canals are committed to publishing an annual Sustainability Report, in alignment with the reporting requirements of the *Global Reporting Initiative* (GRI) and *Sustainability Accounting Standards Board* (SASB). We have also included our approach to integrating the *Task Force on Climate-Related Financial Disclosures* (TCFD), and plan to further expand our disclosures in future years as our reporting journey progresses—**with the ambition to become among the first U.S. utilities and government entities to issue an integrated report for the 2022 reporting cycle.**

NYPA and Canals will also expand voluntary data disclosure efforts to share ESG progress, such as through *The Climate Registry* (TCR).

NYPA and Canals aspire to become among the first U.S. utilities and government entities to issue an integrated report for the 2022 reporting cycle.

VISION2030

NYPA and Canals' 10-year strategic plan provides a roadmap to bring about our vision of a thriving, resilient New York State powered by clean energy. ESG is embedded as an essential element of the strategy.

VISION2030 details NYPA and Canals' plans to:

- > Preserve and enhance the value of our hydro-power assets as a core source of carbon-free power and of flexibility and resilience as the state's grid evolves
- > Pioneer the path to decarbonization by acting as a test-bed for innovation
- > Be the leading transmission developer, owner and operator for New York State and its changing needs
- > Partner with our customers and the state to meet their energy goals
- > Repurpose the New York Canal System for the economic and recreational benefit of New Yorkers while driving operational efficiency

ESG is recognized as a *foundational pillar* in VISION2030, reflecting its role as a central element of our strategy. Other foundational pillars include Diversity, Equity & Inclusion (DEI), Enterprise Resilience, Digitization and Resource Alignment.

VISION

A thriving, resilient New York State powered by clean energy

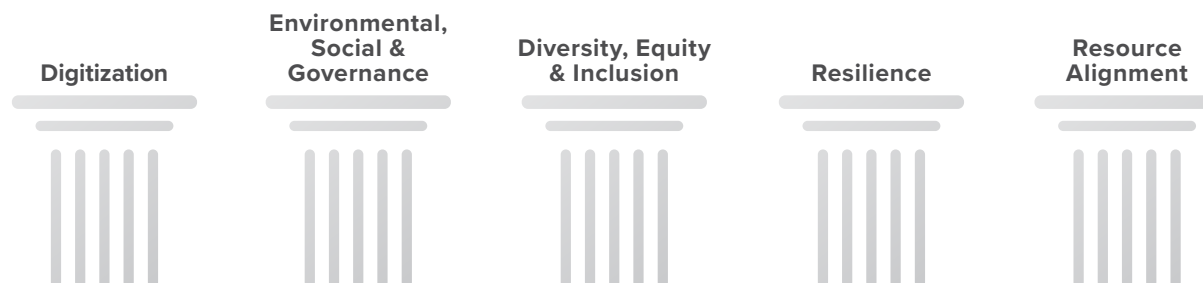
MISSION

Lead the transition to a carbon-free, economically vibrant New York through customer partnerships, innovative energy solutions and the responsible supply of affordable, clean and reliable electricity.

STRATEGIC PRIORITIES



FOUNDATIONAL PILLARS



Materiality Assessment

In accordance with *GRI Reporting Principles* and the *AA1000 AccountAbility Principles*, development of this Sustainability Plan began with a review of NYPA and Canals' material ESG topics. This assessment included an analysis of peer practices, industry trends and priorities, regulations, and sustainability and industry frameworks and standards—bolstered through a stakeholder identification, mapping and prioritization process using AccountAbility's *AA1000 Stakeholder Engagement Standard*.

Key stakeholder groups consulted during the process included NYPA and Canals employees, the SAC and the EMC. Representative data has been used to reflect other stakeholder priorities.

Through the materiality assessment, 15 topics were identified as material to NYPA and Canals and our stakeholders, which inform the focus areas for the sections in this Sustainability Plan.

ESG Focus Areas

The Sustainability Plan addresses each of the 15 material ESG areas in detail. Topic sections are grouped into the categories **Environmental**, **Social** and **Governance** and each section follows a similar structure.

- > Definition of focus area
- > High-level context, highlighting areas of relevance for NYPA and Canals, New York State and stakeholders
- > Overview of selected goals and supporting strategies
- > “Spotlights” on key milestones, initiatives and related activities

An overview of all metrics we will be disclosing against in our Sustainability Report is listed in the Appendix.



ESG Focus Areas

ENVIRONMENTAL

CLIMATE CHANGE & GHG EMISSIONS

Adaptation to and mitigation of climate change impacts and risks, and the capitalization of associated business opportunities, as well as NYPA's Scope 1 (direct), Scope 2 (energy indirect) and Scope 3 (other indirect) greenhouse gas emissions

RENEWABLE ENERGY & ENERGY STORAGE

Renewable energy capacity, generation, storage and consumption

ENERGY RELIABILITY

Reliability of NYPA's network and infrastructure for consistent and uninterrupted supply, including optimization and innovation of smart grid technologies and transmission systems

ENERGY EFFICIENCY & ELECTRIFICATION

Electrification and energy efficiency of NYPA and Canals' infrastructure, including buildings, facilities and vehicle fleet

ENVIRONMENTAL STEWARDSHIP

Management and minimization of water, waste and air effluent and emissions, conservation of natural resources, promotion of biodiversity, and increased resilience and carbon sequestration on land owned or managed by NYPA and Canals

SOCIAL

HEALTH & SAFETY

Promotion and management of physical and mental health and safety in the workplace, and prevention of harm in the communities in which NYPA and Canals operate

EMPLOYEE DEVELOPMENT

Attraction and retention of talent, and the development of NYPA and Canals employees

DIVERSITY, EQUITY & INCLUSION

Commitments and actions that build and maintain a diverse, equitable and inclusive culture in the workplace and across NYPA and Canals' value chain

COMMUNITY ENGAGEMENT

Interaction and communication with community members and organizations, customers and other stakeholders in the areas in which NYPA and Canals operate

ACCESS & AFFORDABILITY

Affordability and accessibility of services across customer types in the communities in which NYPA operates

ECONOMIC DEVELOPMENT

Creation of more resilient communities and promotion of economic growth and local employment

GOVERNANCE

ENTERPRISE RISK & RESILIENCE

The identification, assessment, mitigation, monitoring and reporting of risks and impacts related to NYPA and Canals' activities, and the incorporation of risk management strategies to enhance enterprise resilience, including plans for emergencies and disasters, into both long-term planning and day-to-day operations

REGULATORY MANAGEMENT & COMPLIANCE

Management and compliance with relevant federal, New York State and local environmental and socioeconomic laws and regulations

CYBER & PHYSICAL SECURITY

Security of NYPA and Canals' network and infrastructure, as well as properties and personnel, including data protection and data breach risk minimization

SUPPLY CHAIN & PROCUREMENT PRACTICES

Sourcing practices for goods and services and the environmental and social impacts of NYPA and Canals' supply chain



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Environmental

Climate Change & GHG Emissions

Adaptation to and mitigation of climate change impacts and risks, and the capitalization of associated business opportunities, as well as NYPA's Scope 1 (direct), Scope 2 (energy indirect) and Scope 3 (other indirect) greenhouse gas emissions

Addressing climate change and reducing greenhouse gas (GHG) emissions is a core focus area for NYPA and Canals.

To advance and achieve our decarbonization targets, we intend to:

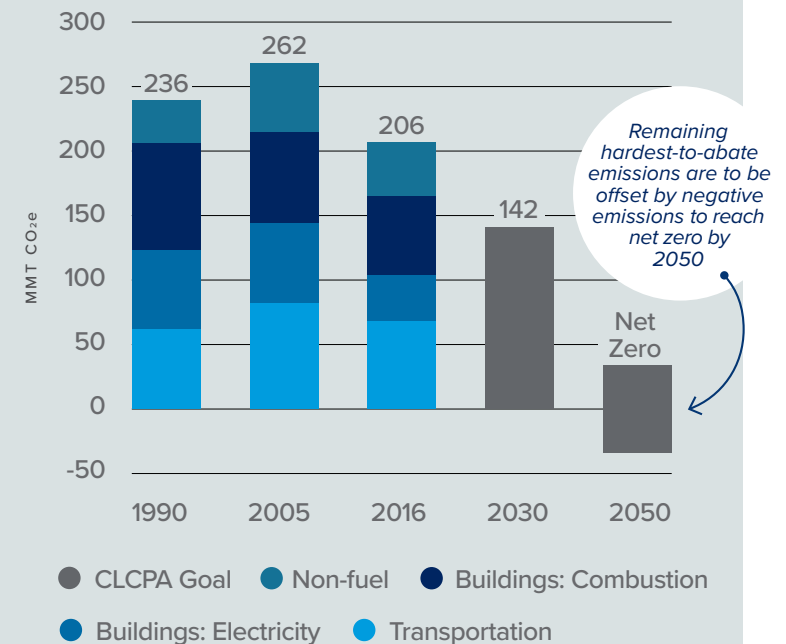
- > Preserve and enhance the value of hydropower assets
- > Decarbonize generation assets by 2035
- > Expand the high voltage transmission system
- > Increase the procurement of renewable energy
- > Invest in customer-centric decarbonization opportunities that include energy efficiency, distributed solar generation, customer-sited storage and electrified transport

- > Increase the energy-efficiency and electrification of our buildings, facilities and vehicle fleet, as well as onsite distributed energy resources
- > Assess the physical impacts of climate change on system operations
- > Enhance our performance management and reporting by developing a comprehensive GHG inventory, integrating disclosures aligned with the TCFD in our annual Sustainability Report and voluntarily reporting annual GHG emissions to TCR

NYPA's climate change commitments, as described in VISION2030, are in alignment with the cross-sector decarbonization pathways outlined in the IPCC's *Special Report on Global Warming of 1.5°C*, the CLCPA and other New York State initiatives—setting some of the most ambitious energy and GHG reduction goals in the U.S.

CLCPA GOALS ARE AMBITIOUS AND
NYPA WILL PLAY A KEY ROLE IN ACHIEVING THEM

New York State Emissions:
40% GHG reduction by 2030; 85% by 2050



VISION2030 sets NYPA on a path to support the CLCPA's goal of achieving a net zero carbon economy by 2050 by supporting renewable energy and electrification, energy storage, transmission and other efforts, including exploration of natural carbon sequestration opportunities.

Chart Source: New York State Energy Research and Development Authority's (NYSERDA) *Pathways to Deep Decarbonization in New York State Report*

OVERVIEW OF GHG SCOPES AND EMISSIONS

CO₂

CH₄

N₂O

HFCs

PFCs

SF₆

NF₃



SCOPE 1 DIRECT

- > Stationary combustion of fuels (power plants, facilities)
- > Mobile combustion (fleet vehicles, corporate aircraft)
- > Fugitive emissions (sulfur hexafluoride (SF₆) associated with electrical equipment)



SCOPE 2 ENERGY INDIRECT

- > Consumption of purchased electricity, heat or steam
- > Transmission line losses



SCOPE 3 OTHER INDIRECT

- > Employee commuting
- > Employee business travel
- > Emissions associated with electricity sales (contracted and wholesale market purchases)

GOAL 1

Manage Scope 1, 2 and 3 emissions and implement GHG reduction strategies

STRATEGIES

- > Use natural gas plants as a test-bed for innovation and new low-to-zero carbon technologies
- > Expand and upgrade transmission
- > Plan to procure renewable energy
- > Provide clean energy products and services to our customers
- > Implement building and fleet energy efficiency and electrification programs
- > Install renewable energy at our facilities
- > Identify and implement ecosystem-based mitigation strategies
- > Conduct stakeholder engagements to accelerate the adoption of clean technologies

INITIATIVE SPOTLIGHTS

NYPA CLIMATE ADAPTATION AND RESILIENCE ASSESSMENT

NYPA has developed a plan to assess climate risks and impacts, the outcomes of which will be used to inform the development of climate change adaptation and resilience strategies.

PHASE I: ASSESS PHYSICAL IMPACTS OF CLIMATE CHANGE ON NYPA'S ASSETS AND OPERATIONS (2021-2022)

NYPA will assess the projected impact of climate change on physical assets, system operations and capital improvement planning, with the goal of increasing organizational resilience by minimizing service disruptions and ensuring that capital expenditures are aligned to NYPA's risk posture.

PHASE II: ASSESS SOCIAL AND ECONOMIC IMPACTS OF CLIMATE CHANGE ON NYPA'S STAKEHOLDERS (2023-2024)

Building on the physical impact assessment, NYPA will evaluate the social and economic impacts of climate change on customers, communities and other stakeholders, and identify strategies to support regional and community adaptation and resilience planning efforts.

REIMAGINE THE CANALS AND CLIMATE RESILIENCE

Through its focus on building resilient communities and resilient infrastructure, NYPA's *Reimagine the Canals* program will harness the potential of the Canal system to reduce the impacts of extreme and unpredictable weather.

Key resilience projects include:

- > **Western Water Management and Irrigation:** a program that will utilize existing infrastructure and Erie Canal water in Western New York to enhance agricultural irrigation, enabling farmers to invest in high-value crops.
- > **Ice Jam Mitigation:** a suite of projects that will mitigate the effects of ice jams to reduce flooding, while improving forecasting and early-warning systems.

GOAL 2

Conduct climate impact study and identify resilience strategies

STRATEGIES

- > Conduct assessment of the physical impacts of climate change
- > Conduct assessment of the social and economic impacts of climate change on NYPA stakeholders
- > Implement climate resilience initiatives identified as part of *Reimagine the Canals*

SEE ALSO

- > *Renewable Energy & Energy Storage*
- > *Energy Reliability*
- > *Energy Efficiency & Electrification*
- > *Environmental Stewardship*
- > *Community Engagement*
- > *Access & Affordability*
- > *Economic Development*

Renewable Energy & Energy Storage

Renewable energy capacity, generation, storage
and consumption

To help New York State achieve its renewable energy goals while also enhancing enterprise resilience, we aim to increase renewable energy capacity, generation, storage and consumption across our facilities and customer groups.

Key renewable energy and energy storage efforts include:

- > Preserving hydropower's role as New York State's renewable base
- > Planning to work with NYSERDA and other parties to procure renewable energy certificates (REC) on behalf of our customers
- > Upgrading our transmission system to support integration of renewables and facilitate the connection of renewable energy sources to higher demand areas
- > Collaborating with developers to implement offshore wind (OSW) projects
- > Developing utility scale storage
- > Collaborating with customers on distributed solar and storage projects
- > Investigating and implementing new energy storage technologies

As a load serving entity, NYPA is expected to meet and contribute to renewable and clean energy targets established under the CLCPA and by New York State.

KEY NEW YORK STATE ENERGY TARGETS

70%
RENEWABLE
ENERGY
GENERATION BY
2030

100%
ZERO-CARBON
ELECTRICITY
BY 2040

6 GW
OF DISTRIBUTED
SOLAR
BY 2025

3 GW
OF ENERGY
STORAGE BY
2030

VISION2030 Strategic Priority

GOAL 1

Preserve and enhance the value of NYPA hydropower

STRATEGIES

- > Advocate for New York Independent System Operator (NYISO) market rules and Public Service Commission (PSC) policies that reflect the value of hydro units
- > Invest in hydro assets to extend useful life and improve efficiency, including completion of life extension and modernization projects
- > Make hydro facilities more competitive by identifying ways to increase flexible load management abilities, improve trading capabilities, and increase operational and maintenance efficiency
- > Pursue contracting arrangements with customers to capture environmental and balancing value of hydro generation and evaluate offtake options for new electric or hydrogen electrolysis loads

GOAL 2

Support the achievement of CLCPA renewable energy goals by providing clean energy

STRATEGIES

- > Procure increasing volumes of various Tier RECs for customers and recover associated costs through NYPA's clean energy program
- > Procure up to NYPA's load ratio share of Zero Emissions Credits (ZECs) from NYSEER-DA, provide ZECs to customers and recover associated costs through NYPA's clean energy program
- > Own and operate renewable energy assets as strategically beneficial and statutorily allowable, for the benefit of New York State

GOAL 3

Upgrade NYPA's transmission system to support integration of intermittent renewable energy sources into the grid

STRATEGIES

- > Invest \$200 million to \$400 million annually to grow transmission asset base by three to five times by 2030
- > Pursue transmission development opportunities through the PSC's Priority Transmission Project (PTP) process and NYISO's Public Policy Transmission Planning (PPTP) process
- > Establish NYPA's transmission development business as a new business unit and elevate its capabilities
- > Collaborate with OSW developers to support project development



GOAL 4

Support the achievement of CLCPA energy storage goals by developing 300 megawatts (MW) of utility scale storage by 2030

STRATEGIES

- > Collaborate with private developers on energy storage projects
- > Explore implementation of energy storage at NYPA facilities
- > Collaborate with the PEAK Coalition to evaluate energy storage potential at NYPA's Small Clean Power Plants (SCPP)

GOAL 5

Install 150 MW of distributed storage and 500 MW of distributed solar to scale clean energy across New York State by 2030

STRATEGIES

- > Install Distributed Energy Resources (DER) and monetize these assets via distribution and NYISO DER markets
- > Aggregate DERs into a virtual power plant to provide load balancing services to the grid and generate new revenue streams for customers
- > Advise customers on the development of solar and storage projects and mitigate challenges government entities have faced in adopting distributed renewable energy

SEE ALSO

- > [Energy Reliability](#)
- > [Energy Efficiency & Electrification](#)
- > [Access & Affordability](#)

Energy Reliability

Reliability of NYPA's network and infrastructure for consistent and uninterrupted supply, including optimization and innovation of smart grid technologies and transmission systems

Energy reliability is increasingly important for NYPA in light of the changing energy landscape and presence of various physical, operational, cyber, regulatory and other risks.

NYPA aims to ensure network and infrastructure reliability and resilience through the optimization and innovation of smart grid technologies and transmission systems, as well as the modernization of assets. By increasing our ability to prepare for and adapt to changing conditions, and withstand and recover quickly from disruptions, we will continue to provide a consistent and uninterrupted energy supply.

As an electricity supplier, NYPA complies with industry reliability standards such as the North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) and Operations & Planning (O&P), Federal Energy Regulatory Commission (FERC), Northeast Power Coordinating Council, Inc. (NPCC) and various ISO (International Organization for Standardization) standards, such as ISO 55001.

In 2019, NYPA became the first utility in North America to receive ISO 55001 certification.

GOAL 1

Upgrade and modernize NYPA's Generation & Transmission (G&T) assets to improve efficiency, reliability, security and resilience

STRATEGIES

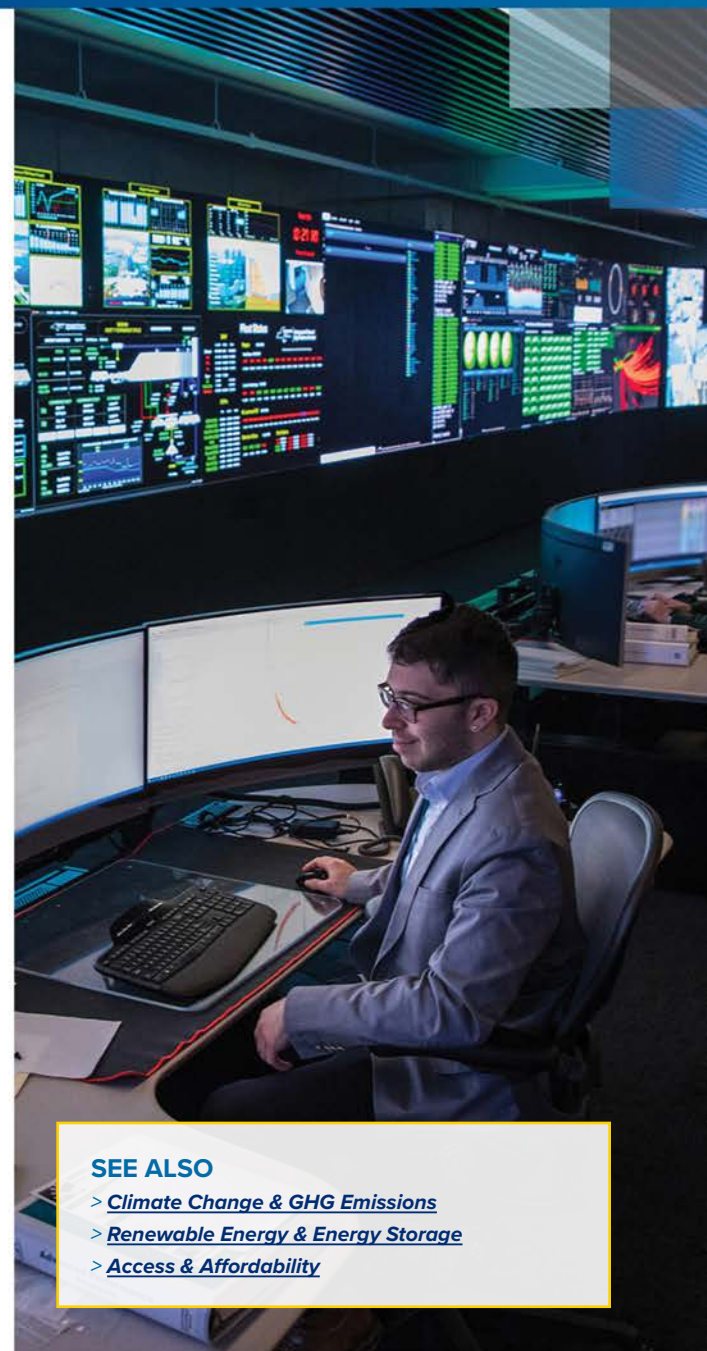
- > Implement state-of-the-art technology and operational initiatives, such as sensor deployment, advanced analytics and communications backbone
- > Leverage the Advanced Grid Innovation Lab for Energy (AGILE) to test, model and create new solutions for energy systems
- > Modernize and extend the life of G&T assets through implementation of the Next Generation Niagara Life Extension and Modernization (LEM) project and Transmission Life Extension and Modernization (TLEM) projects
- > Accelerate technology development through strategic partnerships
- > Empower the workforce with digital solutions that provide access to information anywhere and drive data-driven decisions

GOAL 2

Optimize asset management strategies to ensure an agile response to changing industry landscape

STRATEGIES

- > Place focus on data as an asset by maintaining data governance for all data, tiered with data owners, governors and consumers, and in compliance with ISO 55001
- > Ratify, adopt and refresh enterprise and regional asset management objectives (AMO) through scenario planning
- > Identify operational opportunities by assessing risks, options exercises, and capital/operations and maintenance (O&M) investments
- > Execute a six-year plan to establish frameworks for asset management decision-making and risk assessments
- > Promote an asset performance management culture by optimizing training and communications
- > Partner with industry to benchmark asset performance and measure value



SEE ALSO

- > [Climate Change & GHG Emissions](#)
- > [Renewable Energy & Energy Storage](#)
- > [Access & Affordability](#)

Energy Efficiency & Electrification

Electrification and energy efficiency of NYPA and Canals' infrastructure, including buildings, facilities and vehicle fleet

Buildings and transportation account for a combined 70% of GHG emissions in New York State, underscoring the importance of energy efficiency and electrification in achieving clean energy goals.

NYPA and Canals are committed to leading by example in the energy efficiency and electrification of buildings and vehicles, in alignment with the CLCPA, *New Efficiency: New York* and BuildSmart 2025.

BUILDINGS

NYPA's building portfolio includes 120 buildings, spanning over three million square feet. Approximately 40% of these buildings serve administrative and support functions, with the remainder housing generation and transmission assets. Most NYPA buildings use electricity from hydroelectric generating facilities, while other buildings use electricity generated from NYPA's natural gas power plants and some administrative offices use purchased electricity.

The Canals building portfolio consists of 121 facilities spanning over 250,000 square feet,

including locks, warehouses and offices that all use purchased electricity.

NYPA has a target under BuildSmart 2025 to reduce building energy use by 0.12 Trillion British Thermal Units (TBtu) by 2025 from a Fiscal Year (FY) 2014-2015 baseline.*

TRANSPORTATION

NYPA's vehicle fleet consists of 303 light-duty vehicles, 147 medium-duty vehicles and 39 heavy-duty vehicles. Canals' vehicle fleet consists of 123 light-duty vehicles and 122 medium-duty vehicles.

NYPA has set an ambitious goal to electrify the light-duty fleet 50% by 2025 and 100% by 2030, exceeding the Zero Emission Vehicles Memorandum of Understanding (ZEV MOU) 25% by 2025 target. The organization has also set a goal to reduce the GHG intensity and absolute GHG emissions of NYPA fleet vehicles 25% by 2025 and 40% by 2030, from a FY 2014-2015 baseline.

**The Canals target is not yet confirmed.*

GOAL 1

Increase the efficiency of buildings and maximize onsite renewable energy capacity to reduce building load and work toward net zero

STRATEGIES

- > Adopt advanced standards for new construction (including Net Zero Energy/Net Zero Carbon)
- > Install submeters, identify energy efficiency and electrification opportunities and develop project pipeline for BuildSmart 2025
- > Install intelligent controls to enable better equipment scheduling and management, and implement equipment upgrades and other energy efficiency and electrification improvements
- > Install onsite renewables across our facilities, including rooftop solar and vertical axis wind units
- > Benchmark and track building energy performance through the NY Energy Manager

INITIATIVE SPOTLIGHTS

BUILDSMART 2025 - NYPA

Under BuildSmart 2025, we are developing a pipeline of building energy efficiency and renewable energy projects with the target of 0.12 TBtu in savings for NYPA (2015-2025), including:

- > **Advanced building management systems and heating, ventilation and air conditioning (HVAC) controls**, which maintain building comfort and can reduce energy consumption by as much as 20%
- > **Lighting upgrades**, which increase efficiency, improve safety and lower maintenance requirements
- > **Building envelope improvements**, which minimize temperature loss, save energy and increase comfort
- > **Onsite renewable energy installations**, which will help reduce facility electrical loads

ONSITE RENEWABLE ENERGY PROGRAM

We are implementing a program to install small-scale renewable energy installations at our facilities. In 2020, a feasibility assessment was completed at NYPA sites for solar photovoltaics (PV) and vertical-axis wind applications. The first project—a 377.5 kilowatt (kW) rooftop solar array at the Zeltmann Power Project—is now underway. This installation, along with four vertical axis wind units previously installed, will help to offset facility electrical load and associated GHG emissions. Projects will be implemented at other sites in 2022.

BUILDING ELECTRIFICATION

NYPA will assess electrification opportunities for heating and cooling and identify opportunities to demonstrate ground source and air source heat pumps.

As outlined in *New Efficiency: New York*, building space and water heating and space cooling account for up to one-third of New York State's energy consumption and GHG emissions. Heat pumps provide an effective solution. While they increase electricity consumption, they reduce onsite use of fossil fuels and, if coupled with electricity from renewable sources, can eliminate emissions from heating and cooling entirely.

GOAL 2

Promote vehicle electrification and reduce GHG emissions from vehicle fleet and commuting

STRATEGIES

- > Replace internal combustion vehicles with electric and plug-in hybrid vehicles
- > Promote vehicle right-sizing and purchase smaller, more efficient vehicles where feasible to reduce fuel consumption
- > Test emerging electric technologies and low-carbon fuels in medium- and heavy-duty applications
- > Complete installation of charging infrastructure to support fleet electrification target
- > Promote car-pooling, video conferencing and use of public transportation to reduce total fleet miles traveled
- > Encourage employee adoption of electric vehicles (EV) by expanding workplace charging infrastructure to accommodate future demand
- > Promote alternative transportation commuting options such as biking and walking

INITIATIVE SPOTLIGHT

VEHICLE ELECTRIFICATION

NYPA is implementing a range of programs to accelerate EV adoption and reach our fleet targets.

- > **Fleet Electrification:** NYPA is replacing all light-duty fleet vehicles with electric vehicles and plug-in hybrids, and is increasing the number of charging stations at all sites to support the fleet electrification target.
- > **Workplace Charging:** Employees at all NYPA facilities are participating in the Workplace Charging Program which provides guaranteed charging access during work hours. The program reduces concerns about vehicle range to make EVs a good commuting option for many employees.
- > **Electric Vehicle Training:** Education plays an important role in advancing vehicle electrification goals. EV ride and drive events, fleet trainings and public engagement trainings are provided on a regular basis.

SEE ALSO

- > [Climate Change & GHG Emissions](#)
- > [Renewable Energy & Energy Storage](#)
- > [Community Engagement](#)
- > [Access & Affordability](#)

Environmental Stewardship

Management and minimization of water, waste and air effluent and emissions, conservation of natural resources, promotion of biodiversity, and increased resilience and carbon sequestration on land owned or managed by NYPA and Canals

NYPA's operations span more than 80,000 acres of water and land. NYPA owns 12,000 acres of forested and non-forested land, including facility grounds, parks, wildlife areas and rights of way (ROW), and manages an additional 24,000 acres of privately owned land through ROW easements. The remaining acreage is comprised of water. Canals' operations span over 38,500 acres of water and land, with 22,900 acres of canal-adjacent areas that include facility grounds and public access points.

Over 80% of NYPA's power generation is hydro. The remainder is from our natural gas plants, and also relies on water for its processes. In accordance with NYPA's obligations to water managing agencies, including the International Joint Commission and the New York State Canal Corporation itself, we work to reduce our impact on groundwater aquifers and surface water sources.

Canals manages water levels across the system to allow for commercial and recreational navigation while directly and indirectly supporting supplemental uses such as irrigation, fish habitat enhancement and municipal/private water use. Canals operates as a non-traditional Municipal Separate Storm Sewer System (MS4) to reduce pollution to water through education and system monitoring.

We rely on these lands and waterways to successfully operate our business and serve our customers and communities, and as stewards of our natural



resources, we are committed to conserving and protecting them. For NYPA, this is also a key requirement of state and federal re-licensing and permitting of our hydroelectric generating and transmission facilities.

COMPLIANCE NOTE

Compliance-related objectives and strategies are not included in this section. NYPA and Canals maintain compliance with existing and future federal and state environmental regulations and legislation for management of water, hazardous waste and air emissions.

GOAL 1

Implement programs to promote biodiversity, natural carbon sequestration and resilience

STRATEGIES

- > Inventory and assess land owned and/or managed by NYPA to identify parcels of land for further actions that will:
 - > Promote biodiversity and protect pollinators
 - > Increase natural carbon sequestration
 - > Improve resilience to severe weather events and impacts, such as flooding and erosion
- > Implement projects to protect forested areas and restore forest under-story and tree growth, including afforestation/reforestation pilot projects
- > Implement projects to restore grassland wildlife habitats through creation of pollinator meadows and other strategies
- > Leverage efforts to promote nature-based solutions through public/private partnerships
- > Launch customer Tree Power 2.0 and provide match for native trees planted by governmental customers to increase natural carbon sequestration
- > Develop outreach and education strategies to promote nature-based solutions, including visitors center exhibits, school classes and employee trainings

GOAL 2

Protect riparian ecosystems and increase resilience in watersheds in which NYPA operates

STRATEGIES

- > Conduct assessment and identify opportunities to increase resilience (e.g. restoring riparian buffers and tributary connections)
- > Continue to enhance and maintain wetland areas as part of habitat restoration efforts
- > Maintain current wetland management programs that optimize water levels to correspond with natural cycles and weather events
- > Create public awareness of importance of healthy watersheds through public outreach and education

INITIATIVE SPOTLIGHT

PROTECTING AND RESTORING HABITATS

NYPA is implementing a range of programs and strategies to promote biodiversity, enhance natural carbon sinks and increase resilience to climate impacts.

HABITAT IMPROVEMENT PROJECTS

- > As part of state and federal relicensing and permitting of our hydroelectric generating facilities, we continue to restore and maintain wetlands and other wildlife habitats across NYPA-owned lands.

ROW INTEGRATED VEGETATION MANAGEMENT (IVM) PROGRAM

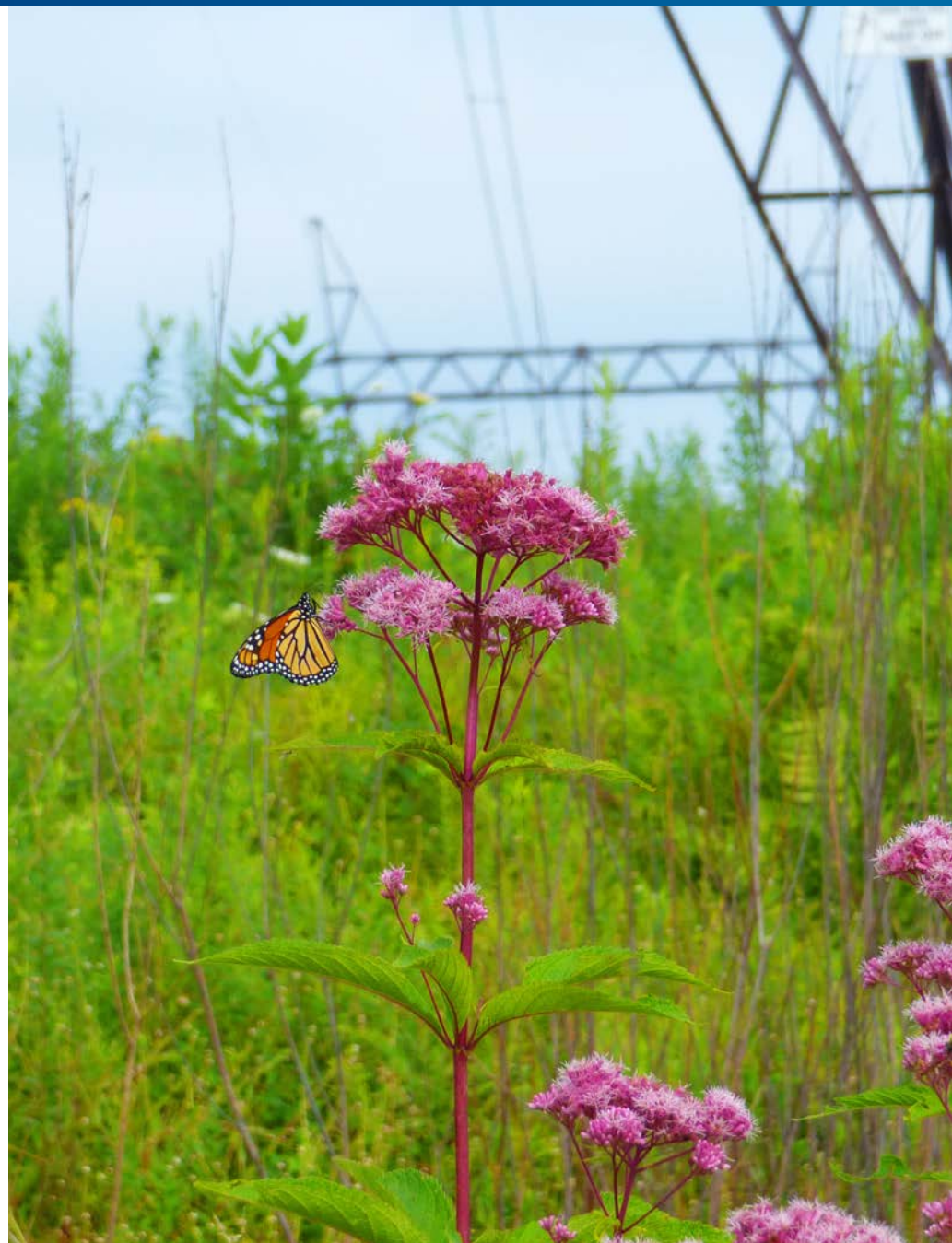
- > NYPA's IVM program selectively controls tall growing plants and promotes sustainable, compatible vegetation with minimal disturbance, thus supporting a rich pollinator habitat along the ROWs and protecting natural carbon sinks.

POLLINATOR INITIATIVE

- > NYPA is creating pollinator gardens and meadows at visitors centers and other locations. The first pollinator garden will be completed at NYPA's Power Vista Visitors Center in Niagara in 2021.

NATURE-BASED APPROACHES TO CLIMATE CHANGE ADAPTATION AND MITIGATION

The CLCPA sets a target of carbon neutrality by 2050, including up to 15% negative emissions to offset those that cannot be reduced with technology. Ecosystem-based restoration and biodiversity management are identified as critical strategies for increasing resilience to changing weather patterns and achieving net zero.



GOAL 3

Reduce the frequency, magnitude and duration of high water levels that lead to flooding along the Canal System

STRATEGIES

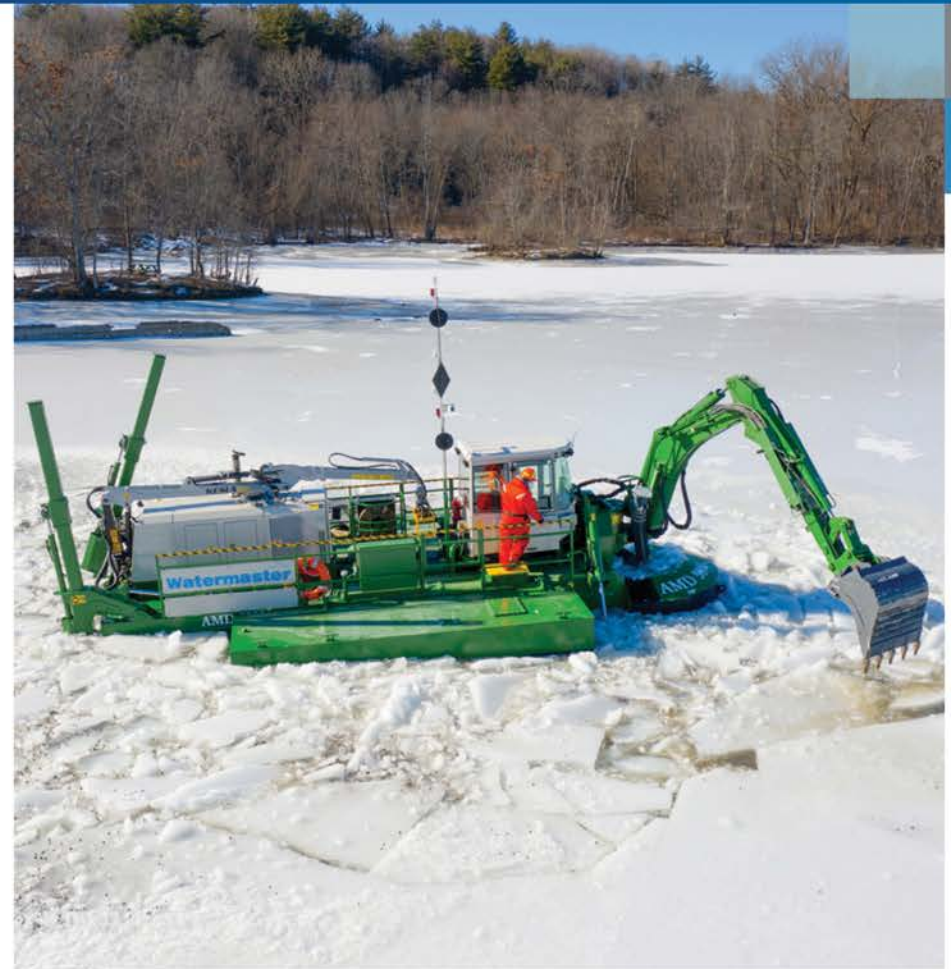
- > Work with technical and regional councils to communicate about Canal infrastructure, operations and land use
- > Repurpose existing Canal infrastructure and develop a long-range program to mitigate summer and winter flooding, restore ecosystems and increase irrigation
- > Identify and engage stakeholders in flood prone areas

INITIATIVE SPOTLIGHT

WESTERN WATER MANAGEMENT, IRRIGATION AND FISHING

Canals aims to increase local farmers' high-value crop yield, recreational fishing and angling-related regional tourism. Illustrative examples of ongoing projects that support these goals include:

- > Utilizing **existing infrastructure, a newly developed incentive program and Erie Canal water** to increase agricultural irrigation in Western New York and enable farmers to invest in high-value crops
- > Adjusting **Canal water flows in Lake Ontario tributaries** to optimize environmental benefit to fish and expand opportunities for recreational fishing and angling-related tourism
- > Reconstructing **water-release gates** to more efficiently regulate water flows and discharges



INITIATIVE SPOTLIGHT

ICE JAM MITIGATION PROGRAM

The Mohawk River portion of the New York State Canal System is plagued by serious flooding from summer storms and winter ice jams, both of which are exacerbated by climate change. This project will mitigate the effects of ice jams to reduce flooding and improve forecasting and early-warning systems.

GOAL 4

Minimize the impact of non-operational water use and increase water efficiency

STRATEGIES

- > Install water meters where necessary and establish baselines
- > Identify opportunities to reduce water use (e.g., cooling systems, bathroom/kitchen fixtures, landscape irrigation) and establish project pipeline
- > Install green infrastructure to further conserve water resources and increase resilience (e.g., green roofs, permeable paving, rain gardens)

GOAL 5

Reduce waste generation and divert recoverable materials and recyclable waste from landfill and incineration

STRATEGIES

- > Implement redesign, reduction, reuse and recycling strategies and provide employee training
- > Improve waste sorting capabilities at each NYPA and Canals site
- > Develop partnerships with local communities to donate goods or materials
- > Develop processes to improve the accuracy of waste data tracking and reporting

INITIATIVE SPOTLIGHT

ZERO WASTE TO LANDFILL PROGRAM

The Zero Waste to Landfill program is a long-term initiative across our sites. We will conduct a zero-waste assessment of 20 NYPA and nine Canals sites to identify redesign, reduction, reuse and recycling strategies, and establish diversion rate milestones and targets. A Zero Waste Team will be formed to coordinate site efforts.



SEE ALSO

- > [Climate Change & GHG Emissions](#)



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Social

Health & Safety

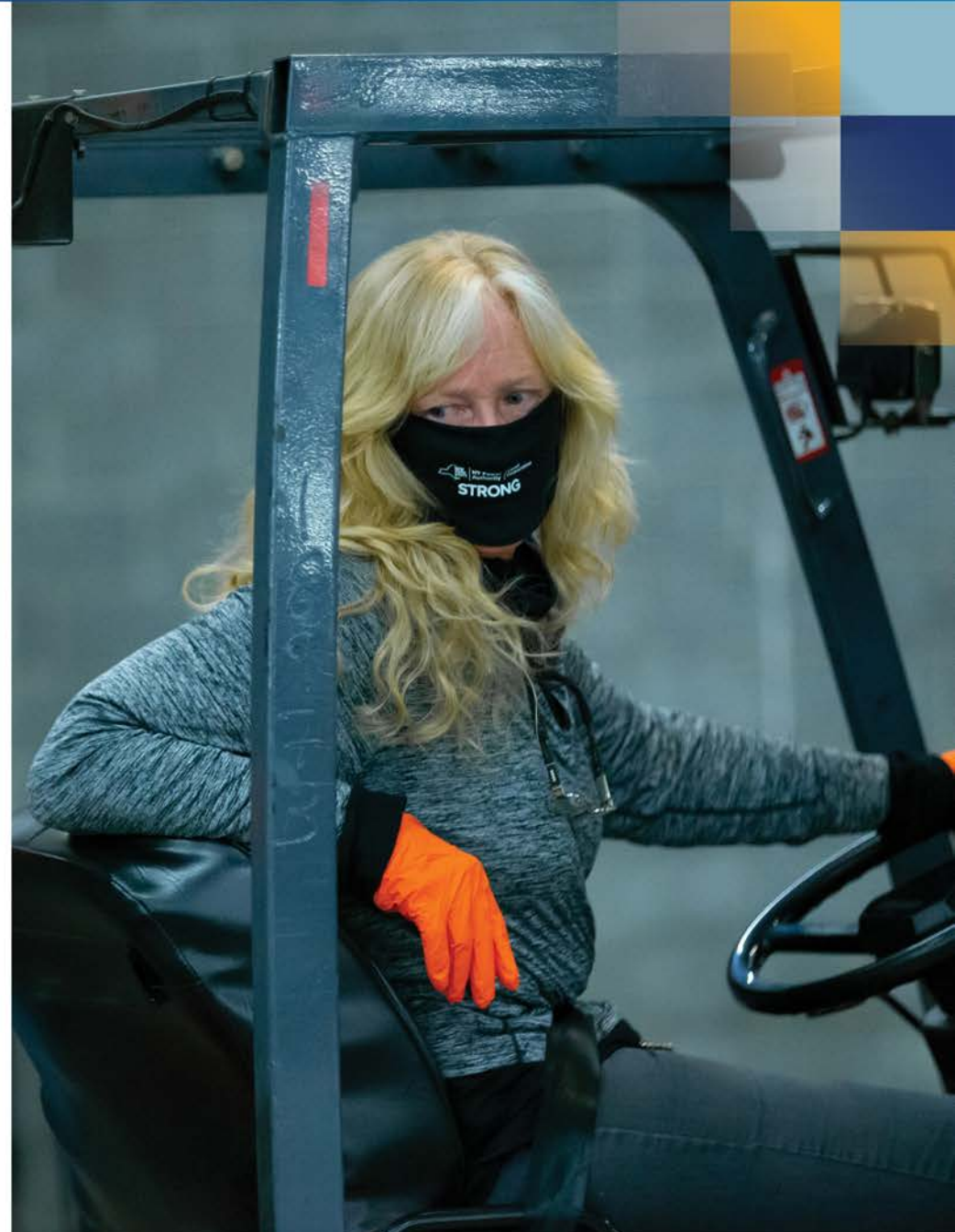
Promotion and management of physical and mental health and safety in the workplace, and prevention of harm in the communities in which NYPA and Canals operate

The health and safety (H&S) of NYPA and Canals employees is critical to business performance, resilience and reliability.

In addition to creating work environments and communities that are free from recognized hazards and comply with applicable statutory and regulatory standards, we are also invested in promoting mental well-being in the workplace.

NYPA and Canals' H&S management aligns with best practices identified by The National Institute for Occupational Safety and Health (NIOSH), the National Fire Protection Association (NFPA) and the Institute of Electrical and Electronics Engineers (IEEE).

NYPA and Canals are subject to regulation of the New York State Department of Labor Public Employee Safety and Health Bureau (NYSPEHS), created in 1980, which enforces safety and health standards promulgated under the United States Occupational Safety and Health Act and Coast Guard Regulations.



GOAL 1

Support employee physical and mental well-being to create a more resilient workforce

STRATEGIES

- > Implement mitigation policies to adequately respond to COVID-19 and potential future pandemics
- > Provide all employees an opportunity to receive a flu shot at their work site
- > Provide free and confidential support and counseling through the Employee Assistance Program
- > Sustain a culture of mindful action, mental agility, focus and well-being through education and communications
- > Provide mindfulness sessions, monthly webinars, training and online tools through the “Be Mindful” initiative

INITIATIVE SPOTLIGHT

BE MINDFUL

The organization-wide “Be Mindful” initiative provides regular programming on the benefits of mindful action at work and shares tools for physical and mental well-being, focused around the following components.

- > **Resilience:** Supporting adaptability through uncertainty to create a more resilient workforce
- > **Focus:** Improving rational decision-making in high-stakes environments to increase workplace focus and awareness
- > **Well-being:** Managing stress through improved physical and mental well-being, while also helping to develop individuals’ capacity to empathize with the challenges of others



GOAL 2

Ensure health and safety of employees working at NYPA and Canals sites and projects

STRATEGIES

- > Support facilities and business units in the development, implementation and maintenance of H&S policies
- > Conduct regular safety inspections and tailgate safety talks at all sites
- > Encourage employees to report near misses and safety issues
- > Conduct internal and third-party audits of the NYPA and Canals H&S program every three years
- > Provide yearly H&S training to all employees in accordance with applicable statutes, regulations and other standards
- > Provide digital courses on safety practices

GOAL 3

Support public safety in the communities that host NYPA and Canals facilities

STRATEGIES

- > Ensure facilities and business units institute public safety policies which include the appropriate level of community involvement
- > Develop and foster relationships with agencies that share a focus on public safety and operate in these same communities
- > Conduct annual review of Emergency Response Plans, inclusive of stakeholder engagement and public outreach
- > Review and expand public safety signage and protocols



SEE ALSO

- > [Employee Development](#)
- > [Cyber & Physical Security](#)

Employee Development

Attraction and retention of talent, and the development of NYPA and Canals employees

Employee development at NYPA and Canals focuses on growing and retaining a diverse workforce. NYPA aims to curate the most appropriate learning experiences for professional and personal growth. Our employee development approach encourages employees to take ownership and immerse themselves in their career development.

Adapting to the changing energy industry landscape requires new skills and ways of working. NYPA is committed to investing in our employees through a targeted workforce plan that supports the recruitment, development, training and retention of employees with the skills and capabilities needed to effectively deliver VISION2030.

As a testament to the strength of the employee development programs, **NYPA has been awarded the *Forbes Best Mid-Size Employer* distinction in 2018, 2019 and 2021.**



GOAL 1

Engage and develop a resilient workforce at NYPA

STRATEGIES

- > Provide transparency regarding career development opportunities, including the skills and experience needed to advance professionally
- > Provide employee training and development programs that advance VISION2030
- > Leverage leading technologies to create engaging experiences for employee and talent development
- > Promote the Eureka! program as forum for employees to share ideas
- > Integrate the organizational values to continue to foster a mission-driven, forward-thinking and inclusive culture
- > Issue an organization-wide survey to assess employee engagement
- > Inform employees of Total Rewards benefits to communicate the value of working at NYPA
- > Conduct succession planning exercises to identify critical roles and develop employees to ensure continuity of operations



INITIATIVE SPOTLIGHTS

TRAINING AND DEVELOPMENT

NYPA has created comprehensive training and development programs for individuals, teams and management. Goals are cascaded throughout the organization annually to align with and support the implementation of VISION2030. Programs include:

- > Customized teambuilding activities to engage employees in performance-enhancing behaviors
- > Curated learning curriculum to develop knowledge and skills that enable high performance
- > Immersive learning experiences, including The Blue Standard suite of manager and leadership training programs and access to an employer

paid onsite MBA program—in partnership with a nationally recognized sustainable business program

EUREKA! INNOVATION PROGRAM

The Eureka! Innovation Program provides a forum for employees to share innovative ideas on a range of topics, including operational improvements, sustainability opportunities, and employee and community engagement. Ideas submitted are assigned to Innovation Stewards and reviewed by an expert evaluation committee.



GOAL 2

Attract talent to shape NYPA's organizational culture and future growth

STRATEGIES

- > Communicate transparently with new employees on career development opportunities within the organization
- > Leverage technologies for talent acquisition
- > Provide onboarding programs for new employees
- > Map job roles and skills throughout the organization to provide clarity on career opportunities and the skills and experience needed to advance

GOAL 3

Shape Canals' organizational culture and future growth

STRATEGIES

- > Provide comprehensive training and development programs to improve skills and competencies aligned to VISION2030
- > Leverage leading technologies to create engaging experiences for employee and talent development
- > Bring the Eureka! program to Canals as a forum for employees to share ideas

GOAL 4

Cultivate a sustainability mindset throughout the NYPA and Canals workforce

STRATEGIES

- > Promote a sustainability mindset through educational programming, including courses, campaigns and events
- > Utilize change management approaches to embed sustainability principles in day-to-day decision-making
- > Develop targeted training on workplace practices and procedures

SEE ALSO

- > [Diversity, Equity & Inclusion](#)

Diversity, Equity & Inclusion

Commitments and actions that build and maintain a diverse, equitable and inclusive culture in the workplace and across NYPA and Canals' value chain

NYPA and Canals are committed to creating a diverse, equitable and inclusive culture in the workplace and across the value chain. This includes:

- > Fostering an internal culture of inclusion
- > Developing leading practice DEI programs
- > Ensuring a diverse supply chain
- > Reinforcing commitments to environmental justice

DEI is a top corporate priority and foundational pillar of VISION2030. We recognize that a utility requires a dynamic workforce and rich culture that is truly representative. While NYPA has had a robust and wide-reaching DEI initiative, starting with the creation of the Office of Civil Rights & Inclusion (OCRI), we recently doubled our investment in DEI and crafted an enterprise-wide portfolio to ensure we are an employer of choice within the utility industry.

These commitments are outlined in our **Ten-Point Diversity, Equity and Inclusion Plan**, developed in alignment with the CLCPA.

EXECUTIVE ORDER 187 (EO187)

Instituted in 2018, EO187 establishes the Governor's Executive Committee for Diversity, Inclusion and Equal Opportunity, presents statewide objectives, and sets guidelines for agencies and authorities to prepare diversity and inclusion plans.



EMBEDDING DEI ACROSS THE ENTERPRISE

The DEI team works closely with other business units to integrate DEI commitments into our community and supply chain programs, including:

- > Establishing community-based Science, Technology, Engineering and Mathematics (STEM), student internship and mentorship programs to increase the pipeline of diverse utility and clean energy workers
- > Creating an enterprise-wide employee service program dedicated to community volunteer activities
- > Continuing to prioritize commercial operations investments in historically disadvantaged communities
- > Building capacity and access for diverse firms and increasing NYPA and Canals' spending with local and diverse suppliers

GOAL 1

Promote a culture of diversity, equity and inclusion at NYPA through education

STRATEGIES

- > Accelerate and expand training to employees on behaviors, principles and skills that ensure a culture of civility and respect and support an inclusive workforce (e.g., unconscious bias training)
- > Expand Employee Resource Groups (ERGs) and bring to NYPA sites

GOAL 2

Ensure employee and leadership accountability

STRATEGIES

- > Conduct audits on programs, policies and governance
- > Develop advanced metrics and key performance indicators

GOAL 3

Increase the transparency of DEI programs, practices and policies

STRATEGIES

- > Expand partnerships with professional organizations and leadership programs to strengthen the pipeline of Black employees
- > Develop, expand and refine policies, procedures and programs for increased transparency



SEE ALSO

- > [Community Engagement](#)
- > [Access & Affordability](#)
- > [Supply Chain & Procurement Practices](#)

Community Engagement

Interaction and communication with community members and organizations, customers and other stakeholders in the areas in which NYPA and Canals operate

NYPA and Canals seek to establish and maintain relationships with community stakeholders across New York State, including customers, stakeholders in historically underserved communities and elected officials.

We are committed to ensuring the areas in which we operate have access to clean, renewable energy that creates jobs and continues to foster a green economy. These community engagement efforts are aligned with our mission and values, as well as VISION2030 and CLCPA's goal to drive decarbonization and a just transition in New York State.

Visitors Centers—located in Niagara, St. Lawrence, Blenheim-Gilboa and the forthcoming New York Energy Zone in Utica—and Nature Centers—including the Nicandri Nature Center in Massena—serve as educational resources for local communities and tourist attractions that support the local economy.



GOAL 1

Conduct outreach and education and provide programs and services to local communities and key stakeholders

STRATEGIES

- > Participate in and support industry conferences and public events to communicate NYPA and Canals' goals to the greater community
- > Establish relationships and communicate regularly with community leaders, providing updates on NYPA and Canals' programs and relevant legislation
- > Collaborate across NYPA business units to develop programs that address specific community needs
- > Expand outreach and education to increase awareness of NYPA and Canals' programs and their benefits to the community



INITIATIVE SPOTLIGHT

SUSTAINABILITY ENGAGEMENT AND EDUCATION

NYPA is dedicated to increasing public awareness around sustainability and climate change, promoting sustainable practices and encouraging the adoption of clean energy technologies. Business units collaborate to provide a

variety of programs that meet community needs. These include educational tours of NYPA visitors and nature centers, STEM camps, classes for school groups on topics such as biodiversity and pollinators, and public events such as EV ride and drives.

NYPA also partners with training institutions and industry groups to promote organizational and New York State climate and sustainability initiatives.

GOAL 2

Engage with and support historically underserved communities located near NYPA facilities and contribute to New York State's just transition

STRATEGIES

- > Foster open and proactive dialogue with EJ communities to broaden relationships with stakeholders
- > Catalyze STEM learning opportunities for EJ communities to foster pathways for training and workforce development in the utility industry
- > Deliver community energy literacy programs for adults, community educators and teachers
- > Develop energy efficiency, clean energy and electrification demonstration projects

Environmental Justice (EJ) at NYPA is driven by a commitment to be a good neighbor to historically disadvantaged and marginalized communities located near our statewide facilities, assets and programs (*four-mile radius in an urban area, 10-mile radius in a rural area*).

INITIATIVE SPOTLIGHT

ENVIRONMENTAL JUSTICE COMMUNITY VOLUNTEER CORPS

NYPA aims to create an enterprise-wide employee service program dedicated to racial justice through our clean energy business programs, such as community solar, and energy efficiency work in environmental justice communities.

This public service initiative provides the opportunity for employees to share their skills and expertise in diverse host communities and for local residents to engage directly with employees.





INITIATIVE SPOTLIGHT

FUTURE ENERGY LEADER PROGRAMS

NYPA's Ten-Point Diversity, Equity and Inclusion Plan includes a focus on supporting communities of color through a partnership with the American Association of Blacks in Energy (AABE).

Programs are designed to broaden NYPA's community-based STEM, student internship and mentorship programs to increase the pipeline of diverse utility and clean energy workers.

- > **P-TECH Scholars Program:** The Pathways in Technology Early College High School (P-TECH) Program enables students located in historically under-resourced schools to begin their college and professional lives with more support than the typical school-to-work pathway. As an industry partner, NYPA selects public schools near our facilities. Students follow a utility-focused curriculum enhanced by mentorships, career centered events, paid internships and job shadowing to earn an associate degree at no cost. NYPA aims to establish 10 P-TECH partnerships by 2025.
- > **The NYPA Future Energy Leader Scholarship:** NYPA will award 20 annual regional scholarships to high school students residing in historically disadvantaged communities near NYPA assets, for pursuit of energy-related STEM degrees.

GOAL 3

Build and sustain relationships with local, state and other government officials, and educate key stakeholders on NYPA and Canals programs

STRATEGIES

- > Communicate regularly with key stakeholders to gain support for NYPA and Canals projects
- > Develop a federal-level legislative tracking program to serve as a resource for managing NYPA's interests in Washington D.C., to be modeled after existing state-level legislative programming

GOAL 4

Enhance customer relationships and serve as a trusted energy advisor through frequent customer engagements

STRATEGIES

- > Engage customers and key stakeholders at the community, New York State and vendor levels in supporting NYPA's environmental, social justice and economic objectives
- > Expand customer engagement methods and programs, with a goal of 600 touchpoints per month, to reinforce NYPA's position as trusted energy advisor

INITIATIVE SPOTLIGHT

CUSTOMER ENGAGEMENT PROGRAM

NYPA has a robust customer engagement program that targets 600 customer touchpoints per month. Key initiatives reinforcing NYPA's end-to-end customer offerings include:

- > **Customer Digital Experience (CDEx):** Creates a best-in-class, easy-to-navigate digital experience for NYPA customers via a collaborative roadmap that is regularly updated with customer input. Implemented and planned initiatives include a customer portal, energy efficiency project dashboards, billing enhancements, integrations with NY Energy Manager, a CRM transformation project and more personalized customer communications.
- > **Voice of Customer (VoC):** Allows NYPA to systematically and routinely solicit, disseminate and act on feedback from customers and identify key drivers of customer satisfaction—targeting more than a 10% improvement in customer satisfaction by 2030.
- > **Customer-First Sales Enablement:** Supports a customer-first approach by creating a new products and services website to show all product offerings, providing resources and information through targeted marketing campaigns, collateral, digital assets and videos, and leveraging data to drive deeper customer partnerships.
- > **Account Plans and Executive Contact Programs:** Engages the largest, most strategic customers on their needs and planning processes in environmental, social justice and economic areas.

SEE ALSO

- > [Diversity, Equity & Inclusion](#)
- > [Access & Affordability](#)

Access & Affordability

Affordability and accessibility of services across customer types in the communities in which NYPA operates

We support New York State's vision for a just and equitable energy transition, as outlined in the CLCPA. NYPA's low-cost power supports all customers, including municipal and rural cooperatives. Access to affordable energy and energy services bolsters community livelihoods and facilitates economic development.

Our efforts to provide low-cost, carbon-free and accessible energy services include:

- > Providing consulting services on energy efficiency, distributed energy resources and electric transportation
- > Implementing turnkey energy efficiency, solar and electric transportation projects-
- > Installing charging infrastructure in public locations to support EV adoption

As part of our commitment to access and affordability, NYPA is making the following investments:

- > Up to \$3 billion in financing for energy efficiency projects at customer facilities by 2030:
 - > \$1.9 billion for the Southeast New York Governmental Services Program
 - > \$1.1 billion for the Statewide Energy Services Program
- > \$550 million of third-party investment in customer sited renewables by 2025, 40% of which will be sited in low- to moderate-income (LMI) communities
- > Over \$100 million in electric vehicle charging infrastructure across all 10 Regional Economic Development Councils by 2025, as part of **EVolve NY**



GOAL 1

Provide low-cost power to support the economic development, resiliency and reliability of municipal and rural cooperatives and the communities they serve

STRATEGIES

- > Encourage participation in the Technology & Innovation Task Force and 1 Mil Adder fund, and provide assistance in identification of energy efficiency, renewable energy and other clean technologies
- > Stimulate technology and business innovation through technology demonstrations, such as the electric bucket truck program
- > Participate in a Joint Implementation Task Force, meeting regularly to track projects and provide assistance with project development for all customers

INITIATIVE SPOTLIGHT

INDUSTRIAL ECONOMIC DEVELOPMENT PROGRAM (IEDP)

Created in 1991 to optimize low-cost hydropower for economic development purposes, IEDP is an incentive for companies to locate in the marketing/franchise area of a municipal or rural electric cooperative. New and existing businesses planning expansion must demonstrate their long-term commitment to job creation and development or expansion of a facility.

As of 2021, the program has created or maintained approximately 15,000 jobs—6,000 supporting 22 electric utility customers and more than 9,000 established through 38 municipal or rural electric cooperative customers receiving low-cost power.



GOAL 2

Implement energy efficiency projects to reduce energy use and associated costs, as well as GHG emissions, in communities in which NYPA operates

STRATEGIES

- > Provide \$1.5 billion over five years in financing for energy efficiency programs
- > Support 68 state agencies in achieving 11 TBtu savings by 2025 as part of BuildSmart 2025
- > Convert 500,000 streetlights to light-emitting diodes (LEDs) by 2025 through Smart Streetlighting NY
- > Provide advisory services and use of NY Energy Manager to assist customers in identifying opportunities for energy and cost savings
- > Aid customers through the Energy Implementation Task Force in the development of new energy efficiency projects

INITIATIVE SPOTLIGHTS

SMART STREET LIGHTING NY

NYPA aims to convert 500,000 streetlights to energy-efficient LED lights across New York State by 2025. The streetlights will be outfitted with SMART controls that provide programmable dimming capabilities, energy metering, fault monitoring and additional tools for emergency services such as on-demand lighting level adjustments. LEDs achieve significant energy and cost savings. They also improve light quality which can lead to a reduction in crime and pedestrian and vehicle accidents, as well as support economic development opportunities for the local community.

BUILDSMART 2025: STATEWIDE

New York State has a target to reduce energy use by 185 TBtu by 2025, from a FY 2014-2015 baseline. BuildSmart 2025 directs state agencies and authorities to lead by example in this effort and reduce energy use by a total of 11 TBtu by 2025, with each organization allocated a portion of the total. The program applies to buildings 5,000 square feet and larger and incorporates energy reductions achieved from 2015 to 2020 under BuildSmart NY. NYPA is responsible for coordinating statewide efforts to deliver on this 11 TBtu goal.



GOAL 3

Provide customers affordable access to clean energy by increasing uptake of solar

STRATEGIES

- > Leverage the Clean Energy Advisory Services team and Clean Energy Master Plans to make the business case for solar installations
- > Support permitting and interconnection, conduct initial design of systems and support price negotiations
- > Support customers in hosting and anchoring community solar projects for their constituents and stakeholder communities

GOAL 4

Promote adoption of EVs by developing charging infrastructure for government and public transport fleets, and the general public

STRATEGIES

- > Offer EV charging infrastructure advisory services to customers
- > Support installation of charging infrastructure for governmental customers through procurement, technical advisory services and construction management
- > Provide master planning to transit agencies for bus procurement, charging infrastructure planning and workforce re-skilling, in partnership with NYSERDA
- > Advance state policy to enable adoption of electric transit buses
- > Install, own and operate DC fast charging network to provide access to fast charging infrastructure throughout New York State
- > Raise awareness of the benefits of driving EVs through outreach and education

INITIATIVE SPOTLIGHT

EVOLVE NY

NYPA is building a network of fast, affordable and reliable public charging stations to increase adoption of EVs. Under this program, NYPA is investing over \$100 million to install fast charging stations in key locations along major highways and at airports. Fast chargers are also being installed in municipal parking lots in downtown commercial revitalization areas to support the development of ten regional economic development zones.



SEE ALSO

- > [Climate Change & GHG Emissions](#)
- > [Energy Reliability](#)
- > [Diversity, Equity & Inclusion](#)
- > [Community Engagement](#)

Economic Development

Creation of more resilient communities and promotion of economic growth and local employment

Economic development at NYPA focuses on helping New York State's economy thrive by supporting its commerce, industry and communities with programs that drive capital investment and create jobs.

NYPA offers low-cost and renewable hydropower to support qualifying businesses and nonprofits in the Niagara region (Western New York Hydropower), counties near the St. Lawrence-Franklin D. Roosevelt Power Project (Preservation Power) and throughout the state (ReCharge NY). These programs are made available through a collaboration between state and local entities, such as Regional Economic Development Councils, the Empire State Development Corporation and industrial development agencies.

A significant portion of the benefits from our economic development activities flow to disadvantaged communities in the form of environmental value, jobs and capital investment.

COVID-19 RESPONSE

In response to the significant negative and long-term impacts of COVID-19 on New York State's economy, NYPA created the Economic Development Customer Assistance Program (EDCAP), which provides customers with assistance such as extended payment terms and additional hydropower.

NYPA remains committed to strengthening its support of New York State's economy, through times of hardship, unpredictability and prosperity.





INITIATIVE SPOTLIGHTS

GREEN JOBS

NYPA is committed to supporting the development and retention of Green Jobs, with the target of developing 200 jobs by 2021. Green Jobs are any type of business role that produces goods and provides services that benefit the environment or conserve natural resources. These goods and services include research and development, installation and maintenance services related to:

- > Renewable energy
- > Energy efficiency
- > Greenhouse gas and pollution reduction and removal
- > Recycling and reuse
- > Natural resources conservation
- > Environmental education and training, compliance and public awareness

RECHARGE NY

Introduced in 2011, ReCharge NY provides 910 MW of hydro and market power to support economic development in the form of business attraction, expansion and retention across New York State.

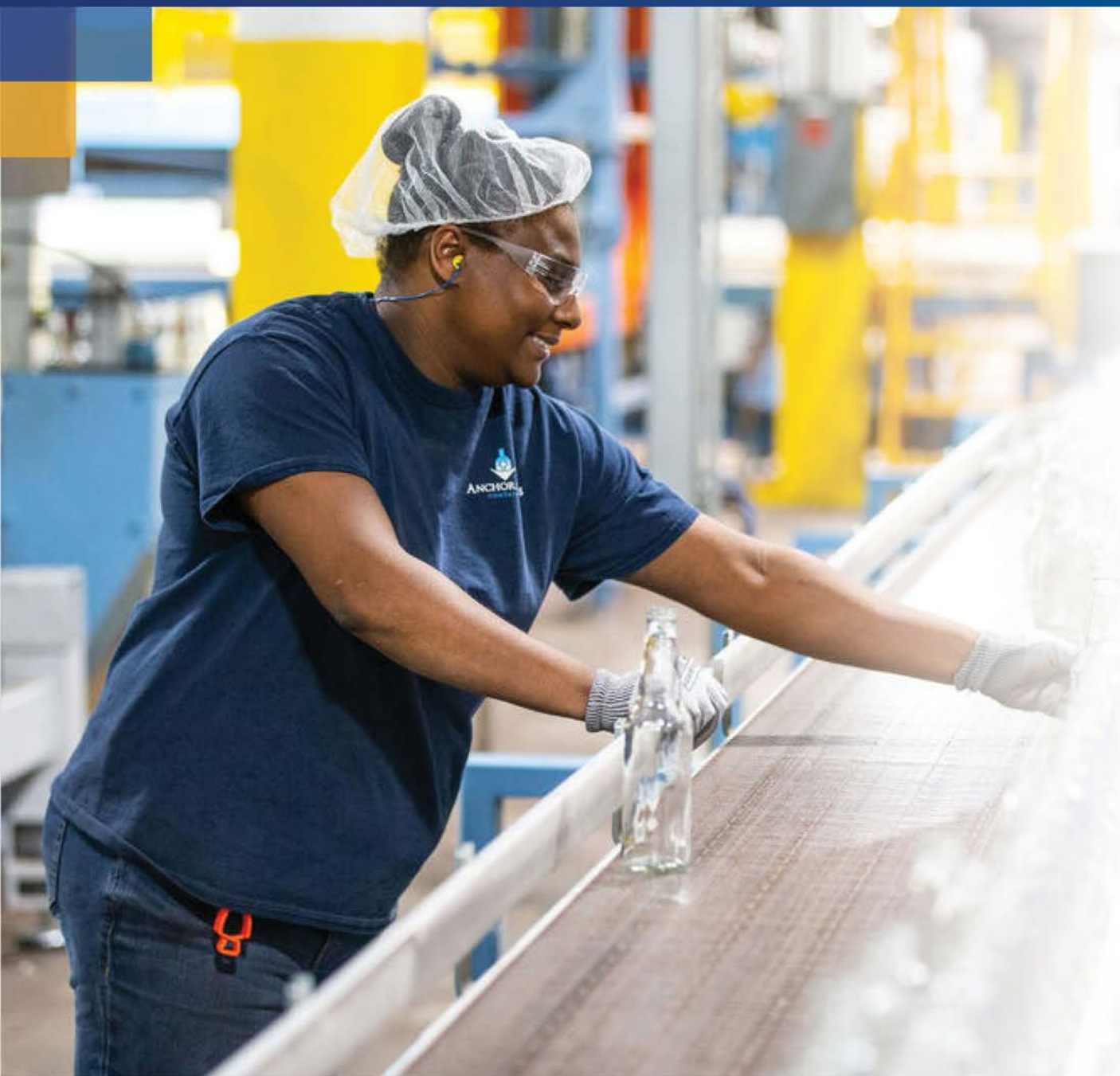
Through the ReCharge NY program, qualifying businesses and nonprofits statewide can potentially lower their energy costs by using specially allocated NYPA power which is set aside by the state and the NYPA board for economic support. Companies receiving allocated power have made commitments such as remaining in the state, keeping or growing employment, expanding operations and/or making significant local investments in their businesses.

GOAL 1

Support NYPA's economic development customers in achieving their energy and decarbonization goals, while also supporting their sustainable economic growth

STRATEGIES

- > Offer low-cost hydropower and other incentives to eligible businesses and non-profits that commit to job retention/creation and capital investment in New York State
- > Seek opportunities to promote new energy technologies and business innovations that will foster a clean energy economy



GOAL 2

Catalyze clean, diverse, inclusive and equitable economic growth in New York State

STRATEGIES

- > Ensure economic development benefits from CLCPA implementation, including capital investments and job retention/creation, flow to disadvantaged communities
- > Stimulate clean energy opportunities, such as community solar Community Choice Aggregations (CCAs), for disadvantaged communities
- > Ensure a minimum of 15% of the Proceeds fund programs are used to support energy-related projects

GOAL 3

Adaptively reuse Canals infrastructure and land bordering the waterways to improve recreational opportunities in neighboring communities

STRATEGIES

- > Encourage private-sector funding as a means to leverage NYPA's investments in Canal revitalization
- > Establish regional councils and a technical advisory council, to serve as channels for communication with stakeholder groups about Canal operations, economic development and resilience
- > Invest in economic development projects that enhance water recreation, celebrate historic canal structures and develop canalside attractions
- > Tie Canals' economic development efforts to recreational opportunities along the Empire State Trail

GOAL 4

Adaptively repurpose and reuse Canals infrastructure and land bordering the waterways to create economic opportunities for neighboring communities

STRATEGIES

- > Develop a policy framework to increase public fishing rights access along Lake Ontario tributaries
- > Identify opportunities for using Erie Canal infrastructure to expand irrigation for Western New York farms

INITIATIVE SPOTLIGHT

REIMAGINE THE CANALS

The *Reimagine the Canals* initiative celebrates historic canal structures, develops canalside attractions and activities, adaptively reuses canal infrastructure, and implements operational improvements to decrease cost and generate revenue.

Key projects to be developed and constructed by 2025 include:

- > **Canastota Pocket Neighborhood:** developing a canalside pocket neighborhood at a former industrial property along the Old Erie Canal
- > **Brockport Loop Pedestrian Bridge:** constructing a new pedestrian bridge to connect SUNY College at Brockport to the Empire State Trail
- > **Cayuga Watercourse:** a new water sports course that will use existing canal infrastructure to control water flows
- > **Guy Park Manor:** a site being fully rehabilitated and reborn as a hospitality destination along the Mohawk River in Amsterdam, with a new pedestrian bridge to provide access to the Empire State Trail





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**Canal
Corporation**



Governance

Enterprise Risk & Resilience

The identification, assessment, mitigation, monitoring and reporting of risks and impacts related to NYPA and Canals' activities, and the incorporation of risk management strategies to enhance enterprise resilience, including plans for emergencies and disasters, into both long-term planning and day-to-day operations

In alignment with VISION2030, we consolidated risk and resilience into one department to ensure resilience strategies effectively address and mitigate risks to NYPA and Canals, and to better prepare for a more distributed and uncertain operating environment.

NYPA and Canals' risk management and resilience efforts are a shared responsibility amongst all stakeholders. To protect and enhance the value we bring to New York State, we are implementing a governance framework and a system that provide transparency and visibility across the organization to ensure all leaders and personnel are equipped to identify typical and atypical emergent threats, understand risk/reward tradeoffs, develop mitigations in alignment with our risk appetite, undertake transparent decision-making and escalate challenges through numerous oversight functions.

In support of a forward-leaning, risk- and resilience-aware organizational culture, our approach leverages recurring touchpoints with the Board of Trustees and the Finance & Risk Committee, the EMC, the Executive Risk Management Committee and the NYPA Secure & Resilient Committee to validate and inform program frameworks, risk appetites, objectives and priorities. The tone set by our leadership and oversight bodies is cascaded across all echelons of the organization to enhance decision-making and minimize unnecessary risk.

GOAL 1

Protect and enhance the value of NYPA and Canals through effective risk management

STRATEGIES

- > Integrate risk management across the organization to ensure risks are effectively identified, assessed, mitigated and monitored
- > Continue to operationalize a robust risk governance structure and escalation path, inclusive of board oversight
- > Support the development of a risk culture through training, participation in governance committees and transparent risk reporting
- > Provide NYPA and Canals and our stakeholders with greater visibility into the organizations' risk profile and potential impacts
- > Ensure broad participation in Executive Risk Management Committee meetings

GOAL 2

Ensure ESG-related issues are integrated in enterprise risk management processes and ESG-related risks are effectively measured and managed

STRATEGIES

- > Conduct annual review of existing risk registers, evaluation criteria, and management systems and programs to determine gaps in ESG coverage
- > Provide effective challenge to ESG integration requirements and action planning
- > Integrate ESG content into regular Enterprise Risk Management (ERM) reviews and engagements
- > Ensure ESG issues are considered when evaluating new projects



GOAL 3

Embed resilience into NYPA's culture and collaborate with industry stakeholders to prepare for a more uncertain operating environment

STRATEGIES

- > Implement processes for risk identification and mitigation, such as horizon scanning, scenario planning, threat analysis and vulnerability assessments
- > Provide awareness and training to educate personnel on risk and resilience programs, processes and leading practices
- > Work with regulators and industry to influence future mandatory reliability standards
- > Develop and maintain partnerships with key industry and New York State entities to improve capabilities
- > Participate in committees with industry partners to further NYPA's strategic position and showcase operational process efficiencies

**AllWays
Resilient**



**NY Power
Authority**

INITIATIVE SPOTLIGHT

ALLWAYS RESILIENT

To foster a resilience-aware culture, in 2020 NYPA launched its multi-year "AllWays Resilient" campaign featuring weekly FYIs, newsroom stories, fireside chats and panel interviews covering a range of resilience topics.



Regulatory Management & Compliance

Management and compliance with relevant federal, New York State and local environmental and socioeconomic laws and regulations

As the nation's largest state-owned public utility, NYPA is committed to ensuring all corporate and business unit policies, procedures and practices comply with the federal and state statutory, regulatory and industry requirements.

Beyond ensuring consistent compliance with current regulations as required by law, we are dedicated to monitoring future regulatory advancements by remaining proficient on relevant energy market issues that impact the implementation of renewable energy resources and transmission construction.

NYPA also actively participates in NYISO, PJM Interconnection LLC (PJM) and New York State's Transmission Owners (NYTO) meetings, when appropriate, to:

- > Advocate for clean energy and smart transmission construction
- > Assess opportunities to incorporate cost of carbon into energy prices
- > Develop and implement equitable cost recovery mechanisms to allocate the costs of achieving a green new grid

GOAL 1

Remain up-to-date and proficient on statutes, regulations and standards applicable to NYPA and Canals and affecting employees and stakeholders

STRATEGIES

- > Conduct advocacy, oversight and engagement with stakeholders across the organization to further NYPA and Canals' mission and strategy
- > Actively participate in and monitor federal and state statutory and regulatory proceedings

GOAL 2

Develop and maintain H&S policies and procedures that describe expectations and accountability for compliance

STRATEGIES

- > Participate in forums involving H&S topics, such as Power Apparatus, Mechanical Apparatus and Safety Administrator Committees
- > Provide technical assistance in the review, interpretation and application of statutes, regulations and other standards relevant to H&S
- > Monitor developments and changes to H&S rules and regulations and advise and support business units and operating projects
- > Develop and implement site-specific H&S work procedures using applicable statutes, regulations, industry standards and corporate policies
- > Ensure appropriate training of employees in accordance with applicable regulations and conduct safety meetings to bring awareness of safety issues to employees



GOAL 3

Develop and maintain environmental policies and procedures in alignment with relevant laws and regulations

STRATEGIES

- > Conduct environmental reviews of proposed NYPA and Canals actions in accordance with state and federal laws and regulations, and NYPA and Canals' policies, procedures and environmental commitments
- > Gain environmental licenses, permits and authorizations for new projects or expansions of existing facilities

GOAL 4

Ensure adherence to all applicable NERC Reliability Standards and promote an assertive and robust culture of compliance across NYPA through the Reliability Standards and Compliance Program

STRATEGIES

- > Ensure the active participation of key executives, designated as program stakeholders, in compliance with policies and procedures
- > Comply with all applicable Reliability Standards established by NERC and the NPCC, pursuant to NYPA's registrations under NERC's functional model
- > Align internal compliance programs with NERC's Risk-Based Compliance Monitoring and Enforcement Program and monitor changes to ensure future compliance
- > Facilitate broad compliance program awareness and participation across the organization





GOAL 5

Strengthen internal controls across the organization to improve business performance and protect NYPA and Canals from risks and compliance gaps

STRATEGIES

- > Implement an enterprise-wide internal controls program consistent with the Internal Control Integrated Framework model developed by the Committee of Sponsoring Organizations of the Treadway Commission (COSO)
- > Establish and maintain communication protocols for compliance reporting and standards for the maintenance of compliance evidence
- > Evaluate existing business processes to identify any gaps impacting compliance with reliability standards
- > Initiate and execute internal improvement plans to mitigate identified gaps/risks
- > Implement remediation efforts and develop plan for the policy and procedural program refresh

SEE ALSO

- > [Environmental Stewardship](#)
- > [Health & Safety](#)

Cyber & Physical Security

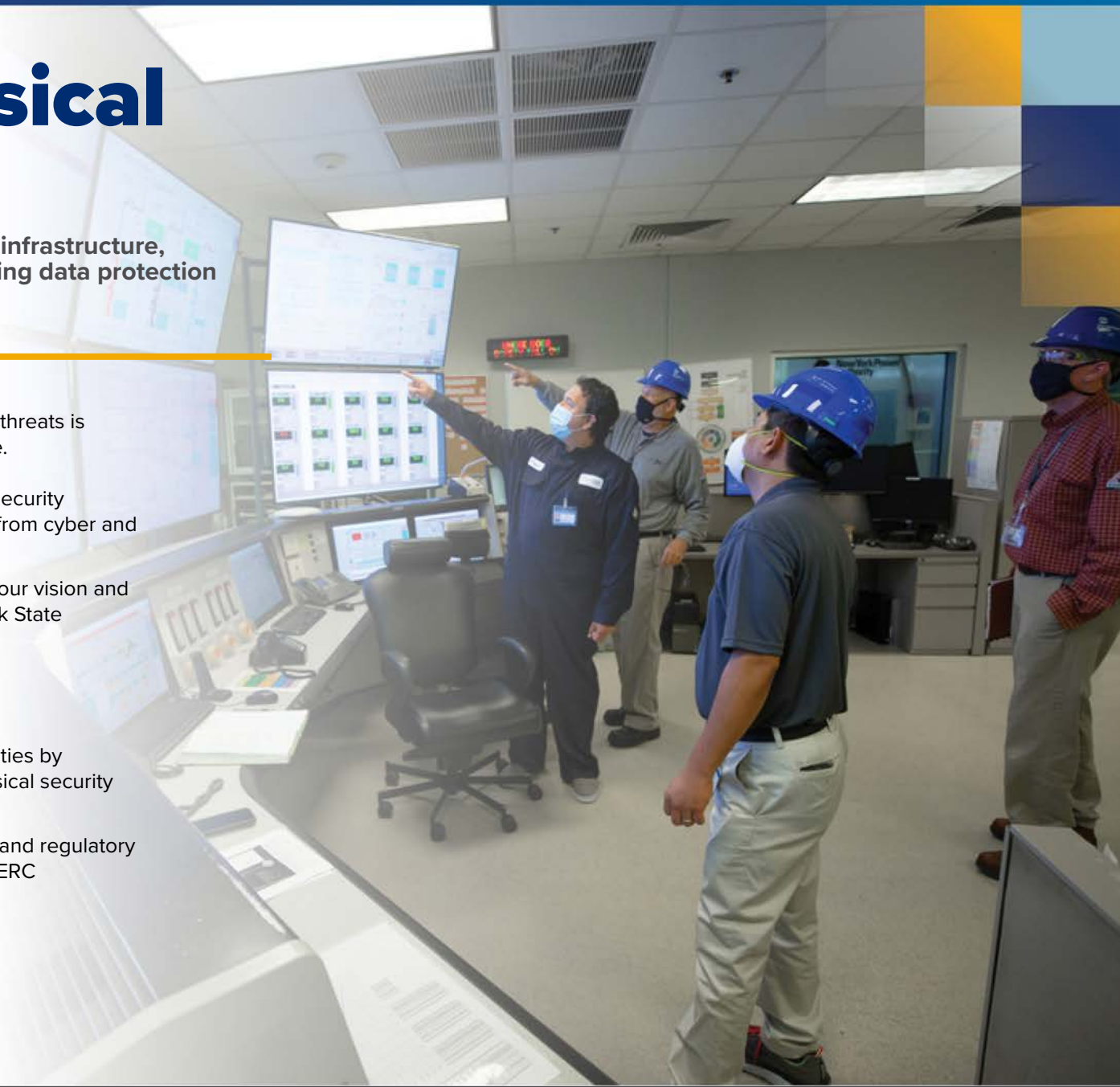
Security of NYPA and Canals' network and infrastructure, as well as properties and personnel, including data protection and data breach risk minimization

Protecting NYPA and Canals from cyber and physical threats is critical to organizational safety, security and resilience.

By establishing a market-leading cyber and physical security program and building a work environment protected from cyber and physical threats, we strive to:

- > Deliver secure solutions and services that advance our vision and support operations while helping to power New York State
- > Increase organization-wide security awareness
- > Ensure response readiness with actionable security standards and training
- > Serve as a model of success for New York State utilities by promoting industry best practices in cyber and physical security

NYPA is subject to and complies with numerous laws and regulatory requirements, as well as NERC CIP compliance and FERC Hydrosecurity Standards.



GOAL 1

Protection of NYPA and Canals' business and operations systems from cyber and physical threats

STRATEGIES

- > Implement cyber and physical defense programs to mitigate risk
- > Assess, minimize, mitigate and respond to security threats and vulnerabilities
- > Provide annual cyber and physical awareness and education programs designed to educate workforce on best practices
- > Conduct continual technology defense improvements
- > Implement advanced monitoring and detection capabilities
- > Identify and minimize potential threats by conducting background screenings of employees, contractors and vendors
- > Implement security controls for supply chain risk management in alignment with NERC CIP-013
- > Ensure Board of Trustees and senior executives continue to provide management, oversight and communications support to advance security goals and strategies

GOAL 2

Maintain and grow partnerships and collaborations to gain better awareness of trending threats and enhance security of Bulk Electric System (BES)

STRATEGIES

- > Develop collaborative pilot projects as part of NYPA's Cybersecurity Center for Excellence
- > Participate in industry conferences and information sharing with peers
- > Collaborate in information-sharing events and drills with government and industry partners





GOAL 3

Conduct internal drills to test the effectiveness and preparedness of NYPA and Canals' cyber and physical Incident Response Plans

STRATEGIES

- > Conduct annual Incident Response Plan (IRP) drills for each NYPA operation site/region in alignment with NERC CIP-008
- > Conduct annual IRP drill for Canals
- > Ensure Incident Response Team complies with event handling and escalation processes
- > Document lessons learned, collect evidence and communicate internally, as needed
- > Participate in external drills such as GridEx, FERC information sharing drills, and New York State physical and cyber security drills

SECURITY PARTNERS

- > American Public Power Association (APPA)
- > Department of Homeland Security Cyber and Infrastructure (DHS/CISA)
- > Federal Bureau of Investigation (FBI), state and local law enforcement
- > Large Public Power Council (LPPC)

- > Multi-State Information Sharing & Analysis Center (MS-ISAC)/ Elections Infrastructure Information Sharing and Analysis Center (E-ISAC)
- > New York State Security Working Group (NYS SWG) and Division of Homeland Security & Emergency Services (NYS DHSES)
- > North American Electric Reliability Corporation (NERC) and Federal Energy Regulatory Commission (FERC)

Supply Chain & Procurement Practices

Sourcing practices for goods and services and the environmental and social impacts of NYPA and Canals' supply chain

NYPA and Canals aim to manage a sustainable supply chain that reduces the environmental and social impacts of our operations.

Sustainability practices are integrated into the supply chain by embedding sustainability criteria in procurement process, building relationships with suppliers and increasing transparency across the supplier network.

NYPA and Canals seek to comply with state specifications for green purchasing identified in Executive Orders 4 and 18, as well as state policies on diverse firms.

EXECUTIVE ORDER 4 (EO4)

- > Establishes an Interagency Committee on sustainability and green procurement
- > Directs state entities to implement green procurement practices and sustainability initiatives
- > Creates green procurement specifications for products and services

EXECUTIVE ORDER 18 (EO18)

- > Prohibits use of state funds to purchase bottled water and requires all executive agencies to report bottled water purchases annually



GOAL 1

Reduce the environmental and social impacts of NYPA and Canals' suppliers

STRATEGIES

- > Evaluate how suppliers are measuring, reporting and managing their environmental and social impacts through annual supplier assessments and RFP questionnaires
- > Integrate sustainability principles into the procurement process through supplier codes of conduct and procurement policies
- > Develop key performance indicators and targets for top suppliers by spend
- > Engage suppliers through outreach programs and evaluation processes and drive continuous improvement in sustainable practices
- > Integrate evaluation outcomes in performance management scorecards for strategic suppliers

COLLABORATION IN INDUSTRY GROUPS

- > **Electric Utility Industry Sustainable Supply Chain Alliance (EUISSCA)**, to advance sustainability best practices and benchmark the environmental and social performance of strategic suppliers through an annual supplier assessment.
- > **Natural Gas Supply Collaborative**, to increase transparency in reporting and promote responsible natural gas production and transportation.
- > **Electric Power Research Institute (EPRI) SF₆ Program** to test SF₆ alternatives.
- > **EPRI and EUISSCA programs** to evaluate renewable energy technologies from a lifecycle perspective.



GOAL 2

Reduce the environmental and social impacts of NYPA and Canals' purchased products

STRATEGIES

- > Execute a sustainable procurement policy that identifies environmentally and socially preferable standards and establishes criteria for product selection
- > Set targets for the purchase of sustainable products, including products that meet green specifications under EO4
- > Develop training programs for NYPA and Canals employees on sustainable procurement practices
- > Research replacements for products with large negative social or environmental impacts and, where applicable, conduct product testing and define new purchasing specifications
- > Work with suppliers to reduce waste generation through changes to product and packaging design and/or takeback programs
- > Assess the lifecycle environmental and social impacts of materials and products purchased

GOAL 3

Increase number of and spend with New York State/local and diverse suppliers

STRATEGIES

- > Establish business unit and corporate diversity goals, with KPIs
- > Host supplier diversity events, education and training to build capacity and access to diverse firms
- > Simplify contract terms and conditions for low-risk projects
- > Implement Surety Bonding program to assist state-certified diverse suppliers in obtaining bonding and access to capital
- > Expand and launch a formal Mentor Protégé program to encourage and facilitate the participation of diverse firms
- > Optimize communications to promote diverse supply chains, including branding, communication roadmaps and messaging

SEE ALSO

- > [Diversity, Equity & Inclusion](#)
- > [Community Engagement](#)



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Appendix

2020 Sustainability Report Metrics

In addition to this Sustainability Plan, we recently published a 2020 Sustainability Report—our first report to align with GRI and SASB frameworks. On this page we list the metrics included in the 2020 Sustainability Report, many of which are required by GRI and SASB.

These metrics provide a foundation for future sustainability reporting, which we plan to build on as our reporting journey progresses.

ENVIRONMENTAL

- > Scope 1 GHG emissions
- > GHG emissions intensity
- > Air emissions of the following pollutants: NOx, SOx, VOCs, particulate matter and hazardous air pollutants (HAP) and percentage of each in or near areas of dense population
- > Total electricity generated and percentage by major energy source
- > Reduction of energy use across buildings
- > Number of employees enrolled in Workplace Charging Program
- > Water withdrawal, total and by source
- > Water recycled and reused
- > Total water consumed
- > Number of incidents of non-compliance with water quality and/or quantity permits, standards and regulations
- > Acres of habitats protected or restored
- > Waste by type and disposal method
- > Number of significant spills
- > Incidents of non-compliance with environmental laws and regulations

SOCIAL

- > Total recordable injury rate
- > Total fatality rate
- > Near misses
- > Employee DART rate (Days Away, Restricted or Transferred)
- > Number of tailgate safety talks
- > Number of safety walkdowns
- > Hours of training per year per employee
- > Percentage of employees receiving regular performance and career development reviews
- > Percent of employees covered by collective bargaining agreements
- > Diversity of governance bodies and employees
- > Number of commercial customers served
- > Customer electricity savings from efficiency measures by market in MWh
- > BuildSmart 2025—TBtu conserved
- > Capital investment commitment of economic development customers
- > Jobs created/retained commitment of economic development customers

GOVERNANCE

- > Noncompliance with laws and regulations in the social and economic area
- > Amount of legal and regulatory fines and settlements associated with allegations of violations resulting from interactions with utility commission
- > Substantiated complaints concerning breaches of customer privacy and losses of customer data
- > Proportion of spending on local suppliers
- > Percentage of new suppliers screened using social and environmental criteria in high impact procurements
- > Total number of suppliers assessed for social and environmental impacts
- > Percent of NYPA and Canals' total identified minority- and women-owned business enterprise spend with New York State certified suppliers
- > Percent of NYPA and Canals' total identified service-disabled veteran-owned business spend with New York State certified suppliers

Glossary

A

AABE—American Association of Blacks in Energy

AGILE—Advanced Grid Innovation Lab for Energy

AMO—Asset Management Objectives

APPA—American Public Power Association

B

BES—Bulk Electric System

C

Canals—New York State Canal Corporation

CCA—Community Choice Aggregations

CDEx—Customer Digital Experience

CEO—Chief Executive Officer

CLCPA—Climate Leadership and Community Protection Act

COSO—Committee of Sponsoring Organizations of the Treadway Commission

D

DART—Days Away, Restricted or Transferred

DEI—Diversity, Equity and Inclusion

DER—Distributed Energy Resources

DHS/CISA—Department of Homeland Security Cyber and Infrastructure

E

E-ISAC—Elections Infrastructure Information Sharing and Analysis Center

EDCAP—Economic Development Customer Assistance Program

EJ—Environmental Justice

EMC—Executive Management Committee

EO—Executive Order

EPRI—Electric Power Research Institute

ERG—Employee Resource Group

ERM—Enterprise Risk Management

ESG—Environmental, Social and Governance

EUISCA—Electric Utility Industry Sustainable Supply Chain Alliance

EV—Electric Vehicle

F

FBI—Federal Bureau of Investigation

FERC—Federal Energy Regulatory Commission

FY—Fiscal Year

G

GHG—Greenhouse Gas; additional scopes and emissions referenced include:

- > **CH₄**—Methane
- > **CO₂**—Carbon dioxide
- > **HFC**—Hydrofluorocarbons
- > **N₂O**—Nitrous oxide
- > **NF₃**—Nitrogen trifluoride
- > **PFC**—Perfluorocarbons
- > **SF₆**—Sulfur hexafluoride

GRI—Global Reporting Initiative

G&T—Generation & Transmission

GW—Gigawatt

H

H&S—Health and Safety

HVAC—Heating, ventilation and air conditioning

I

IEEE—Institute of Electrical and Electronics Engineers

IEDP—Industrial Economic Development Program

IPCC—Intergovernmental Panel on Climate Change

IRP—Incident Response Plan

ISO—International Organization for Standardization

IVM—Integrated Vegetation Management

K

KPI—Key Performance Indicator

kW—Kilowatt

L

LED—Light-emitting Diode

LEM—Life Extension and Modernization

LMI—Low- to Moderate- Income

LPPC—Large Public Power Council

M

MS4—Municipal Separate Storm Sewer System

MS-ISAC—Multi-State Information Sharing & Analysis Center

MW—Megawatt

MWBE—Minority- and Women-Owned Business Enterprises

N

NERC—North American Electric Reliability Corporation

> **NERC CIP**—NERC Critical Infrastructure Protection

> **NERC O&P**—NERC Operations & Planning

NFPA—National Fire Protection Association

NIOSH—National Institute for Occupational Safety and Health

NPCC—Northeast Power Coordinating Council, Inc.

NYISO—New York Independent System Operator

NYPA—New York Power Authority

NYSDHES—New York State Division of Homeland Security & Emergency Services

NYSERDA—New York State Energy Research and Development Authority

NYSPESH—New York State Department of Labor Public Employee Safety and Health Bureau

NYSSWG—New York State Security Working Group

NYTO—New York State's Transmission Owners

O

OCRI—Office of Civil Rights & Inclusion

OSW—Offshore Wind

P

P-TECH—Pathways in Technology Early College High School

PJM—PJM Interconnection LLC

PPTP—Public Policy Transmission Planning

PSC—Public Service Commission

PTP—Priority Transmission Project

PV—Photovoltaics

R

REC—Renewable Energy Certificates

ROW—Rights of Way

S

SAC—Sustainability Advisory Council

SASB—Sustainability Accounting Standards Board

SCPP—Small Clean Power Plants

SDVOB—Service-Disabled Veteran-Owned Businesses

STEM—Science, Technology, Engineering and Mathematics

T

TBtu—Trillion British Thermal Units

TCFD—Task Force on Climate-Related Financial Disclosures

TCR—The Climate Registry

TLEM—Transmission Life Extension and Modernization

V

VOC—Voice of Customer

Z

ZEC—Zero Emissions Credits

ZEV MOU—Zero Emission Vehicles Memorandum of Understanding



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123 MAIN ST.
WHITE PLAINS, NY 10601
NYPA.GOV