



NEW YORK
STATE OF
OPPORTUNITY

NY Power
Authority

Canal
Corporation

2020 SUSTAINABILITY REPORT

[NYPA.GOV](https://www.nypa.gov)

03

PLANNING FOR A BETTER FUTURE

- 03 Leadership Statements
- 05 Our 2020 ESG Impact “At a Glance”
- 06 About Us
- 07 About this Report

17

ENVIRONMENTAL

- 18 Climate Change & GHG Emissions
- 25 Renewable Energy & Energy Storage
- 29 Energy Reliability
- 33 Energy Efficiency & Electrification
- 36 Environmental Stewardship

40

SOCIAL

- 41 Health & Safety
- 45 Employee Development
- 47 Diversity, Equity & Inclusion
- 51 Community Engagement
- 55 Access & Affordability
- 60 Economic Development

08

BUILDING A BEST-IN-CLASS SUSTAINABILITY APPROACH

- 09 Strategic Alignment
- 13 Stakeholder Engagement
- 13 Materiality Assessment
- 14 ESG Focus Areas
- 15 Sustainability Governance

63

GOVERNANCE

- 64 Enterprise Risk & Resilience
- 67 Regulatory Management & Compliance
- 70 Cyber & Physical Security
- 73 Supply Chain & Procurement Practices

76

APPENDIX

- 77 Performance Data
- 79 GRI Index
- 89 SASB Index: Electric Utilities Standard
- 94 Glossary
- 97 Forward Looking Statements

A Note From Our Chairman

IN THIS TIME OF UNPRECEDENTED UNCERTAINTY AND DISRUPTION, Environmental, Social and Governance (ESG) issues are central to financial recovery and growth. Individually and collectively, they have a profound impact on all aspects of a business, its people and its operating ecosystem—including the natural environment and the economic infrastructure. In this still new century, sustainability is more than a responsible practice, it is a competitive advantage. It says who we are and what we will achieve going forward.

We, therefore, believe it is critically important for ESG to become even more central to NYPA's strategy and mission, and, consequently, have made it a foundational pillar of VISION2030. Our ESG commitments and investments will enhance engagement with our stakeholders and increase our business resilience.

NYPA is playing a key role in transforming how energy is generated and transmitted in New York State. Our efforts align with the Intergovernmental Panel on Climate Change's (IPCC) goal to achieve climate stabilization at 1.5 °C. We are helping to implement the New York State Climate Leadership and Community Protection Act (CLCPA) and facilitate a just transition to a carbon-free, economically vibrant New York State.

This Sustainability Report, and NYPA's 2021-2025 Sustainability Plan, are important next steps that demonstrate NYPA's commitment to building a more sustainable business that will, in turn, support New York State's ambitious climate agenda.

An integral component of this effort is strong governance with well-established policies, practices and controls to guide our sustainability efforts. Our inclusive sustainability governance framework applies to every level of our organization and is designed to ensure accountability for our actions and performance.



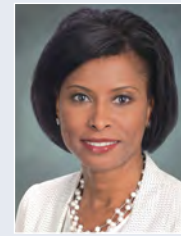
JOHN R. KOELMEL
Chairman



EUGENE L. NICANDRI
Vice Chairman



MICHAEL BALBONI
Trustee



TRACY B. MCKIBBEN
Trustee



ANTHONY J. PICENTE, JR.
Trustee



DENNIS TRAINOR
Trustee

At the Board level, our ESG commitments include:

- > Leading and guiding the management of ESG strategy and goal setting
- > Supporting our governance of ESG-related issues, including managing committees focused on risk and resilience to further embed ESG into our operations
- > Ensuring the achievement of goals identified in the Sustainability Plan
- > Reinforcing corporate accountability around setting, monitoring, evaluating and achieving our sustainability goals

Climate change is one of the most important challenges of this era and a strong ESG foundation will support our efforts to create a new energy future for the people, communities and businesses of New York State.

JOHN R. KOELMEL
Chairman

Planning for a Better Future

NEW YORKERS ARE TOUGH, INNOVATIVE AND thoughtful. We look to the future, dream about what could be and take the steps to make it happen.

But don't take my word for it.

A small sample of our state's inspiring narrative of leadership over roughly the past 175 years reveals a series of historical turning points: Elizabeth Cady Stanton and Lucretia Mott championing the women's rights movement in Seneca Falls; Thomas Edison and Nikola Tesla electrifying the world; the modernization of labor laws after the Triangle Shirtwaist Factory fire in Manhattan, and the emergence of the national environmental movement in the Hudson Valley.

NYPA's focus on sustainability, or ESG, builds on this history of commitment and perseverance. It is a foundational pillar of VISION2030, our recently introduced 10-year strategic plan.

VISION2030 will enable us to help bring about a thriving, resilient New York State powered by clean energy. To achieve this vision, we are advancing the nation's most ambitious climate targets and setting some of the boldest ESG goals of any U.S. government-owned utility.

This Sustainability Report outlines our approach to ESG, which guides our long-term business investments and plays a crucial role in the growth and

development of our organization. We are committed to using the *Global Reporting Initiative* (GRI) and the *Sustainability Accounting Standards Board* (SASB) reporting frameworks to strengthen disclosures and our accountability to stakeholders.

The following pages highlight our sustainability efforts in 2020 and into 2021, including:

- > Releasing **NYPA and Canals' Sustainability Plan**, an implementation document complementing this report and providing deeper insight into the actions we are taking to advance sustainability efforts through 2025
- > Announcing a **2035 target for eliminating carbon emissions** from our natural gas portfolio, a significant step toward meeting the state's goal of a carbon-free power system by 2040
- > Financing hundreds of millions of dollars of **customer energy efficiency** and **clean energy** projects
- > Supporting **400,000 jobs across New York State** through economic development programs, including a financial relief program introduced at the start of the COVID-19 pandemic
- > Introducing our **Ten-Point Diversity, Equity and Inclusion (DEI) Plan** to support the development, retention, promotion and engagement of a diverse workforce; empowerment of diverse suppliers; and forging of science, technology, engineering and mathematics (STEM) partner-

ships to build a pipeline of energy workers in environmental justice communities

- > Funding a **\$300 million *Reimagine the Canals* initiative** to revitalize the Erie Canal corridor as a prime tourism and recreation destination, while boosting economic development and environmental resilience

The next decade will be exciting and productive for NYPA and Canals. We will use our innovative talent, visionary strategies, industry-leading ambition and "New York Tough" mindset to pursue decarbonization, foster economic growth and create an ESG blueprint for others to follow.

Everything we do will be shaped by the sustainability goals and organization-wide commitments detailed here. This will be a collaborative effort, and we will keep our communities and stakeholders fully updated on our progress as we move forward together toward a cleaner, brighter future.



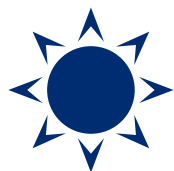
Gil C. Quinones
GIL C. QUINONES
President and
Chief Executive Officer

Our 2020 ESG Impact “At a Glance”

ENVIRONMENTAL

\$1.2 BILLION

issued in long-term bonds—including nearly **\$800 million** in Green Bonds—for planned capital projects



Advanced construction of **33 MW** of distributed solar, planned to become operational in 2021

>80%

of the electricity NYPA produces is **clean renewable hydropower**



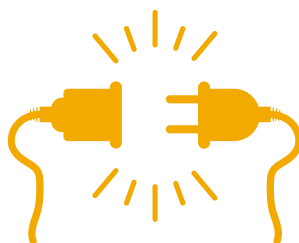
Established target to achieve **zero** carbon electricity generation by 2035, **five years** ahead of the CLCPA target

Began construction on a transmission project to supply **900 MW** of renewable energy

SOCIAL

400,000+

jobs created or retained in New York State through **economic development programs**



Helped customers save a total of **212,196 MWh** in electricity through **energy efficiency measures** (2018-2020)

Introduced our **TEN-POINT DIVERSITY, EQUITY AND INCLUSION PLAN**



Reduction in DART rate at NYPA sites between 2018 and 2020



Awarded the **Forbes Best Mid-Size Employer** distinction in 2018, 2019 and 2021



Launched the \$300 million **Reimagine the Canals initiative** to adaptively repurpose the New York Canal System

GOVERNANCE

Announced a new collaboration to establish a first-of-its-kind **CYBERSECURITY CENTER FOR EXCELLENCE**

Deployed an **Enterprise Governance, Risk and Compliance System**, offering ongoing risk monitoring capabilities

The majority of our spend was with **New York State** suppliers



ABOUT US

About the New York Power Authority

The New York Power Authority (NYPA) has its main administrative office in White Plains, New York and is America's largest state-owned electric utility. More than 80% of the electricity NYPA produces is clean renewable hydropower.

NYPA's power customers include:

- > Large and small businesses
- > Not-for-profit organizations
- > Community-owned electric systems
- > Rural electric cooperatives and government entities
- > New York State wholesale electricity market, administered by the New York Independent System Operator (NYISO)

NYPA is a corporate municipal instrumentality of New York State that serves the public without the use of tax revenue or state credit. We finance construction of our projects through bond sales to private investors and repay bondholders with proceeds from our operations.

About the New York State Canal Corporation

The New York State Canal Corporation (Canals) is a subsidiary of NYPA.¹

The New York State Canal System includes four historic canals: Erie, Champlain, Oswego and Cayuga-Seneca. Spanning 524 miles, the waterway links the Hudson River with the Great Lakes, the Finger Lakes and Lake Champlain. The canals form the backbone of the Erie Canalway National Heritage Corridor and connect hundreds of unique and historic communities.

¹Throughout this document, "NYPA and Canals" refers to both to the New York Power Authority and its subsidiary, the New York State Canal Corporation. Organization-specific focus areas, goals and strategies are indicated, where relevant.

FAST FACTS

2,400+
employees

→ 1,973
NYPA employees

→ 463
Canals employees

1,400+
customers

16
generating facilities
that produce up to
25% of New York
State's power

1,454
circuit-miles of
transmission lines

500+
miles of Canal
waterways

80,000+
acres of owned
and managed
water and land

About This Report

This Sustainability Report details our environmental, social and governance (ESG) performance and progress toward achieving the goals, strategies and targets outlined in our **2021-2025 Sustainability Plan**. This report is a key element of the ESG foundational pillar of our VISION2030 strategic plan. It has been designed to respond to our stakeholders' present and future expectations, communicate our ESG performance and hold us accountable in leveraging sustainability for long-term value creation.

We believe in reporting our ESG progress and doubling down on our commitments. This report provides the platform to transparently communicate and disclose performance in alignment with leading ESG reporting and disclosure frameworks and standards.

- > This report was prepared in accordance with the **Global Reporting Initiative (GRI) Standards Core option**
- > Our disclosures are aligned with the **Sustainability Accounting Standards Board (SASB) Electric Utilities Standard**
- > We highlight our alignment with and contributions to the **United Nations Sustainable Development Goals (UN SDGs)**
- > 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.

To reinforce our commitment to sustainability performance, disclosure and reporting, we have the ambition to become among the first U.S. utilities and government entities to issue an integrated report. We plan to release our first integrated report as part of the 2022 reporting cycle.

Our sustainability commitments are established and integrated into our corporate strategy, management and oversight approach, with our Executive Management Committee (EMC) and Board of Trustees reviewing and approving the publication of this report.

This report includes data from NYPA and Canals' owned and operated facilities and assets. Data estimations, exclusions and additions are noted, where applicable.

We aspire to respond to all stakeholder inquiries about our sustainability strategies, activities and performance, and invite you to share your questions, thoughts and suggestions with us. Contact us at **sustainability@nypa.gov** to continue the conversation.



NY Power
Authority

Canal
Corporation

Building a Best-in-Class Sustainability Approach

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



STRATEGIC ALIGNMENT

VISION2030

VISION2030, NYPA's 10-year strategic plan, provides a blueprint to bring about our vision of a thriving, resilient New York State powered by clean energy.

As a foundational pillar of VISION2030, ESG is an enterprise-wide imperative that is central to NYPA's strategy and mission.

Our strategy is informed by the real threat of climate change. It aligns with the **Intergovernmental Panel on Climate Change's (IPCC)** goal to limit global temperature rise to 1.5° C and supports New York State initiatives, policies and regulations, including the **Climate Leadership and Community Protection Act (CLCPA)**, one of the nation's most ambitious pieces of legislation.

Underpinning all business operations, sustainability is integrated across the full spectrum of corporate performance at NYPA and Canals and plays an essential role in our growth and development.

Within VISION2030, we have defined our ESG ambition as delivering a “best-in-class sustainability strategy to meet the present and future needs of our stakeholders and ensure long-term environmental, social, governance and economic performance.”

Sustainability Plan 2021-25

Advancing the ESG Foundational Pillar of
VISION2030



STRATEGIC ALIGNMENT

Sustainability Plan

This year, we developed and published NYPA and Canals' 2021-2025 Sustainability Plan, which will serve as a roadmap to help bring our ESG ambition to life over the next five years. The plan outlines the ESG goals, strategies and initiatives that we are committed to across each of our 15 material ESG focus areas, which align with and support VISION2030 objectives.

The Sustainability Plan is an integrated, cross-functional and collaborative living document that will be revisited and refreshed as our sustainability journey evolves, our targets are achieved and our ambitions grow. The plan was developed through an extensive stakeholder engagement process with input from business units, corporate functions and leadership from across the organization, including the Sustainability Advisory Council (SAC), subject matter experts and other key stakeholders.

STRATEGIC ALIGNMENT

United Nations Sustainable Development Goals

The United Nations Sustainable Development Goals (UN SDGs) are a collection of 17 interlinked goals set in 2015 and designed to be a roadmap to achieve a better and more sustainable future for all. NYPA reviewed the UN SDGs most relevant to our strategic priorities and stakeholders, and mapped our commitments and achievements against them.

SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all

TARGET 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services



Supporting electricity affordability through our

**HYDRO
POWER
ASSETS**

by offering a variety of low-cost customer supply programs

Planning to achieve **\$550 MILLION** of third-party investment in customer sited renewables by 2025, 40% of which will be sited in LMI communities

TARGET 7.3 By 2030, double the global rate of improvement in energy efficiency

> Implemented energy efficiency measures that resulted in **212,196 MWh** of customer electricity savings (2018-2020)

> Planning to finance up to **\$3 BILLION** in capital work for energy efficiency projects at customer facilities by 2030



TARGET 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

70%

Renewable energy generation by 2030, as well as contributions to other CLCPA renewables targets

100%

Carbon free electricity by 2035

SDG 13: Take urgent action to combat climate change and its impacts

TARGET 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

- > Developed a multi-phase strategy to evaluate the potential long-term impacts of climate change on our infrastructure and operations
- > Making significant investments in modernizing our Generation and Transmission assets to improve resilience



TARGET 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning



- > Established educational training and awareness programs for all employees and external stakeholders

TARGET 13.2 Integrate climate change measures into national policies, strategies and planning

> Fully committed to supporting CLCPA targets

STRATEGIC ALIGNMENT

United Nations Sustainable Development Goals

The United Nations Sustainable Development Goals (UN SDGs) are a collection of 17 interlinked goals set in 2015 and designed to be a roadmap to achieve a better and more sustainable future for all. NYPA reviewed the UN SDGs most relevant to our strategic priorities and stakeholders, and mapped our commitments and achievements against them.

SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Investing
\$200-400 million
per year to
grow our

TRANSMISSION
ASSET
BASE

3 to 5 times
by 2030

SDG 5: Achieve gender equality and empower all women and girls



GENDER EQUALITY and supporting diverse employee development form an integral part of our Ten-Point Diversity, Equity and Inclusion Plan

SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all



SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable

SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Investing over
\$100 million in
**ELECTRIC
VEHICLE
CHARGING
INFRA-
STRUCTURE**
through EVolve NY



- > Leading development of \$1 million bus conversion plan
- > Electrifying our light-duty fleet 50% electric by 2025 and 100% by 2030

- > Continued to maintain habitat improvement projects across 3,852 acres in 2020
- > Launched new initiative to create pollinator gardens and meadows at our facilities



**SUPPORT
ECONOMIC
DEVELOP-
MENT**

across New York State

- > Created or main-
tained approximately
400,000 jobs

REPRESENTATIVE STAKEHOLDER SNAPSHOT

- > The people of New York State
- > NYPA and Canals employees and board leadership
- > State and local communities
- > Community organizations
- > Customers
- > Suppliers, contractors and business partners
- > Regulators and elected officials
- > Industry organizations and peers
- > Investors and strategic partners
- > Rating agencies
- > Membership associations NYPA participates in, namely:
 - > American Public Power Association (APPA)
 - > Electric Power Research Institute (EPRI)
 - > Large Public Power Council (LPPC)
 - > National Hydropower Association (NHA)

Stakeholder Engagement

At NYPA and Canals, we put people first.

We value listening and learning, and view engaging our stakeholders as integral to our work.

Throughout all the cycles of our projects and operations—from planning and developing infrastructure projects, to customer service and community engagement—we engage with key stakeholders to ensure their perspectives are heard, their expectations are understood and, where possible, their needs are met.

Our detailed engagement plans and approaches for reaching targeted stakeholder groups are customized based on needs, preferences, priorities and objectives.

We engage with our network in regular, dynamic channels, such as community engagements and programs, workshops and events, town hall meetings, surveys, policy dialogues and participation in industry conferences.

Materiality Assessment

In 2020, we conducted a comprehensive assessment of our material ESG topics with support from a sustainability advisor and guided by the *GRI Reporting Principles* and the *AA1000 AccountAbility Principles*.

The assessment included a benchmarking analysis of peer practices, industry trends and priorities, state regulations and initiatives, and industry leading sustainability frameworks and standards. Stakeholders were identified, mapped and prioritized using AccountAbility's *AA1000 Stakeholder Engagement Standard* to ensure a robust and inclusive engagement process. NYPA and Canals employees, the SAC and the EMC were engaged throughout the process.

The process included the identification, definition and prioritization of 15 material ESG topics that were deemed to be of importance to key stakeholders and of significance to NYPA and Canals' economic, environmental and social impacts—listed on the page that follows.

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

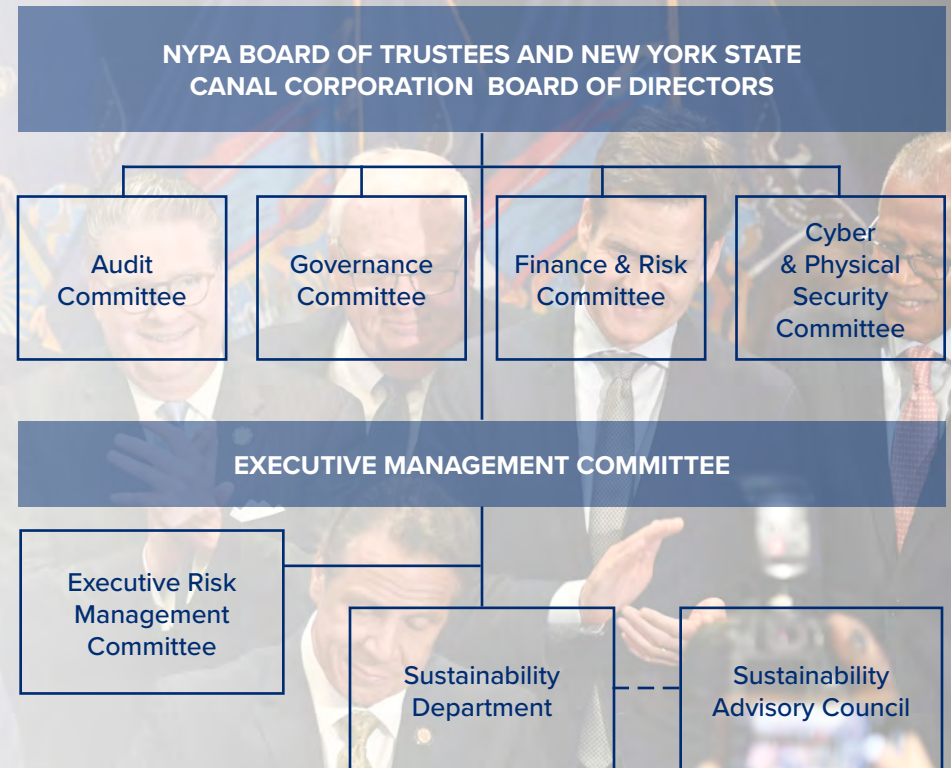
Sourcing practices for goods and services and the environmental and social impacts of NYPA and Canals' supply chain

Sustainability Governance

Our ability to effectively manage our ESG performance and risks, as well as hold ourselves accountable to our stakeholders, relies on a robust and inclusive approach to sustainability governance.

We have restructured, refined and strategically elevated our sustainability governance framework to include leadership at the highest levels of the organization and span all key business units. This ensures the effective oversight, implementation and disclosure of sustainability goals, commitments and initiatives.

- > **Board of Trustees:** provides 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 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.



EXECUTIVE MANAGEMENT COMMITTEE MEMBERS

Gil Quiniones, *President and Chief Executive Officer*
 Joseph Kessler, *EVP and Chief Operating Officer*
 Kristine Pizzo, *EVP and Chief Human Resources & Administration Officer*
 Justin Driscoll, *EVP and General Counsel & Chief Legal Officer (ESG Executive Sponsor)*
 Adam Barsky, *EVP and Chief Financial Officer (ESG Executive Sponsor)*
 Sarah Salati, *EVP and Chief Commercial Officer*
 Robert Piascik, *SVP and Chief Information & Technology Officer*
 Yves Noel, *SVP and Chief Strategy Officer*
 Daniella Piper, *Chief Transformation Officer and Regional Manager Western Region*
 Phil Toia, *President, NYPA Development*



NEW YORK
STATE OF
OPPORTUNITY

NY Power
Authority

Canal
Corporation



ESG Performance

ENVIRONMENTAL SOCIAL GOVERNANCE



ENVIRONMENTAL

Climate Change & GHG Emissions

“Climate change continues to greatly influence our work and we will aggressively pursue decarbonization while at the same time enhancing the state’s ability to have a thriving economy—thus creating a blueprint for others to follow.”


GIL C. QUINIONES, NYPA PRESIDENT AND CEO

The physical and systemic risks of climate change are real, present and growing. The increasing severity and frequency of extreme weather events have significantly threatened the reliability and effectiveness of our nation’s power grid.

As the country’s largest public power organization, we believe it is our responsibility to lead by example in addressing climate change, mitigating climate risks and paving the way for a thriving clean energy economy. The local manifestation of climate hazards also demands that we understand and address climate impacts specific to our customers and communities.

New York State is confronting climate change with the CLCPA, adopting some of the most ambitious clean energy targets in the country, including the full decarbonization of the state’s electricity system by 2040 and transitioning to a carbon-neutral economy by 2050.





NYPA will play a key role in achieving the ambitious goals outlined in the CLCPA, aspiring to reach zero carbon electricity generation by 2035—**five years ahead of the CLCPA target.**

Addressing climate change is imperative for our business, employees and local communities, as well as the state and society at large. VISION2030 was designed in this context. Strategic priorities with major greenhouse gas (GHG) emission implications include:

- > Enhancing and preserving the value of hydropower
- > Pioneering the path to decarbonization of our natural gas assets
- > Leading the expansion of New York State's transmission system
- > Partnering with our customers and New York State to meet clean energy goals

TCFD DISCLOSURE

Applying TCFD for Climate Management

To NYPA, delivering a best-in-class sustainability strategy requires robust and rigorous strategy management and includes disclosure around climate—a material ESG issue that is central to our daily business and long-term performance. We are committed to applying and leveraging the TCFD’s voluntary disclosures on climate-related financial risks to align and elevate our climate-related risk management strategy and activities, as well as communicate the most relevant and impactful information to our stakeholders.

In this initial phase of our reporting journey toward full TCFD integration, the foundational disclosures in this report describe our current approach to climate-related issues and our plans for further implementation, formalization, integration and reporting in the future cycles.



TCFD DISCLOSURE

STRATEGY AND GOVERNANCE

The material impact climate-related issues can have on our business and our stakeholders necessitates active management of, and planning around, climate-related risks and opportunities. This is why climate change is at the heart of both our 2021-2025 Sustainability Plan and our VISION2030 strategy, and why our corporate governance approach includes oversight and management of climate-related risks, opportunities, strategies and initiatives at all levels of the organization.

OUR STRATEGIC APPROACH TO CLIMATE CHANGE MITIGATION, ADAPTATION AND RESILIENCY

It is our responsibility—within New York State, our industry and the global sustainability community—to manage our environmental impact. We strive to provide clean, reliable energy for our stakeholders, even as the risks and opportunities associated with climate change continue to escalate and evolve.

VISION2030 and our Sustainability Plan are designed 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 New York State's other ambitious clean energy initiatives.

NYPA is positioning itself to adapt to the challenges of climate change and capitalize on market opportunities for climate change mitigation with products, services and programs that are at the forefront of the clean energy transition.

We also plan to address the physical impacts of climate change by conducting formal climate change adaptation and resilience studies to fine-tune our strategies and fortify the stability and performance of our business for the long-term.

CLIMATE OVERSIGHT AT ALL LEVELS OF OUR ORGANIZATION

- > **Board of Trustees**, responsible for overseeing policies, programs and performance related to sustainability, climate and environment
- > **Finance & Risk Committee and Audit Committee**, assist the board in overseeing enterprise risk management and the implementation of policies and actions to monitor and mitigate risks, including climate-related risks
- > **EMC's ESG Sponsors** oversee the ESG foundational pillar, provide guidance on sustainability strategy, goal setting, climate response and reporting, and support the board's governance of ESG and climate-related issues
- > **Executive Risk Management Committee**, assists the EMC in providing risk management oversight and oversees the establishment of the risk management processes, including potential climate-related impacts
- > **SAC** collaborates across business units to manage ESG and climate-related efforts and ensure successful implementation of the ESG foundational pillar, including the goals, targets and strategies outlined in the Sustainability Plan

TCFD DISCLOSURE

INTEGRATING CLIMATE RISK

While climate change presents physical, operational, regulatory and financial risks for our organization, the goals outlined in VISION2030 related to transmission, renewable energy and helping customers meet their energy goals also illuminate significant opportunities.

Our risk management team maintains a Risk Register and an Enterprise Governance, Risk and Compliance (EGRC) system that serve as the repository for mitigation plans, internal controls and metrics for enterprise, operational and project risks across NYPA. We are in the process of reviewing ESG risks identified as part of VISION2030 and our new Sustainability Plan. Once identified, these risks will be prioritized and included in enterprise risk management systems and platforms, as well as considered for new project evaluations and reported to leadership.

NYPA CLIMATE ADAPTATION AND RESILIENCE ASSESSMENT

Our planned climate adaptation and resilience assessment is designed to ensure that risks associated with the physical impacts of climate change are embedded in our business operations, strategy and financial planning as follows:

> Phase I: Assess physical impacts of climate change on NYPA's assets and operations (2021-2022)

Conduct an assessment of the projected impacts of climate change on NYPA's physical assets, system operations and capital improvement planning to inform development of adaptation and resilience strategies.

> Phase II: Assess social and economic impacts of climate change on NYPA's stakeholders (2023-2024)

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

REIMAGINE THE CANALS AND CLIMATE RESILIENCE

Four of the six most destructive floods in communities along the Canal System have taken place in the last ten years, and studies indicate that flood levels in the Mohawk River Watershed could rise nearly 20% over the next decade. Climate change also increasingly threatens upstate New York farms with extreme and unpredictable weather—including damaging summer droughts, especially in western New York, that endanger New York State's primary fruit and vegetable growing region.

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 these climate change impacts.

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

TCFD DISCLOSURE

MEASURING AND MANAGING PERFORMANCE

VISION2030 and the new **Sustainability Plan** include several critical metrics and targets in alignment with CLCPA goals that we are in the process of implementing for ongoing monitoring, management and reporting.

We actively measure and disclose Scope 1 GHG emissions to The Climate Registry (TCR), including emissions from stationary combustion of fuels (power plants, building heating systems), transportation and sulfur hexafluoride (SF₆) associated with electrical equipment.¹

Most of NYPA's Scope 1 GHG emissions come from our fossil fleet, which provides critical and mandated generation capacity for Southeast New York (SENY) and has some of the lowest emissions rates for fossil fuel plants in the U.S.²

We plan to begin tracking Scope 2 emissions (purchased electricity, transmission line losses) and Scope 3 emissions (electricity sales from contracted

and wholesale market purchases, business travel, employee commuting), and will establish a new baseline for total Scope 1, 2 and 3 emissions in the near future.

Details on energy-related targets are also included in the **Renewable Energy & Energy Storage, Energy Efficiency & Electrification**, and **Access & Affordability** sections, and targets related to water, waste and land use are included in **Environmental Stewardship**.

28,611,838 MWh
generated by NYPA in 2020

88%
clean hydropower

¹CLCPA requires that New York State reduce GHG emissions by 85% from 1990 levels and offset remaining emissions by reforestation, carbon sequestration in soils and other actions.

²All NYPA's Southeast New York generating facilities are subject to Regional Greenhouse Gas Initiatives (RGGI), the first mandatory market-based program in the United States to reduce GHG emissions.

CLCPA GOALS



reduction in GHG emissions by 2030



reduction in GHG emissions
by 2050¹



of benefits to disadvantaged
communities

SCOPE 1 EMISSIONS*

2018 1,425,325.4 MT CO₂e

2019** 1,369,772.3 MT CO₂e

2020** 1,539,119 MT CO₂e

*MT CO₂e (including CO₂, CH₄, N₂O, SF₆)

**2019 and 2020 emissions data was pending verification from The Climate Registry at the time of this report's publication.

Taking Climate Action

CASE STUDY

TRANSITIONING NYPA'S NATURAL GAS 'PEAKER' PLANTS TO CLEANER ENERGY TECHNOLOGIES

To support New York State's decarbonization transition and help improve air quality for New York City residents, we are piloting low-to-zero carbon emission resources and technologies and investigating the feasibility of short- and long-duration battery storage.

In October 2020, we unveiled a landmark agreement with the PEAK Coalition, a group of environmental justice and clean energy organizations, to assess how to transition our natural gas fired "peaker" plants, six located in New York City and one on Long Island with a total capacity of 461 MW, to utilize low-to-zero carbon technologies, while continuing to meet the electricity reliability and resiliency requirements of New York City.

This initiative will assess battery storage and low-to-zero carbon emission resources and technologies as alternative clean energy options that could replace, augment, or otherwise reduce or eliminate reliance on fossil fuels over time.

"In this time of racial reckoning and the growing harm from climate change to vulnerable populations, this New York agreement is a responsible model that should be followed in other communities with peaker plants, one where plant owners respect environmental justice concerns and pursue a collaborative approach to a clean energy transition in heavily polluted urban areas."

LEWIS MILFORD, PRESIDENT OF CLEAN ENERGY GROUP AND PEAK COALITION ADVISER

CASE STUDY

SUSTAINABLE U: LET'S GET CLIMATE SMART CLIMATE SCIENCE TRAINING PROGRAM

At NYPA and Canals, we recognize that education is a key component of a successful climate strategy. Our multi-phased training effort for all employees aims to establish a company-wide grounding in the fundamentals of climate science and the data that informs CLCPA and VISION2030 targets.

In 2021, we will deliver the first phase of the training, a five-unit climate science curriculum supporting our over 2,400 employees and leadership with approximately ten hours of e-learning and interactive discussion classes per employee.

PHASE ONE

- > Intersection of COVID-19, equity and climate change
- > Fundamentals of earth systems and climate science
- > Science of climate change: causes and impacts
- > Science of climate solutions
- > New York State, NYPA and Canals climate action plans

PHASE TWO

Trainings for specific work functions, with deeper dives into particular aspects of climate science and solutions, including specialized trainings for community relations, procurement, customer account and engineering teams

PHASE THREE

Development of customized climate science training materials, courses and curriculum for customers and external stakeholders

Renewable Energy & Energy Storage

New York State's nation-leading CLCPA targets for renewable energy and energy storage, along with our VISION2030 strategy, firmly position NYPA at the forefront of the clean energy transition.

We are enhancing and preserving hydropower's role as the renewable base that our stakeholders depend on for a reliable, carbon-free energy future, implementing renewable energy projects through customer and developer collaborations, and planning to go above and beyond our hydropower contribution by working with the New York State Energy Research and Development Authority (NYSERDA) and other parties to acquire Renewable Energy Certificates (RECs) on behalf of our customers.

A significant transmission system upgrade will be required for New York State to meet its renewable energy goals. Building on the CLCPA, the Accelerated Renewable Energy Growth and Community Benefit Act enacted in 2020 will help prioritize the planning, investment and development of state-of-the-art grid infrastructure, with NYPA named by the legislation to play a unique leading role. We aim to grow our transmission asset base three to five times by 2030, which will facilitate the connection of renewable energy sources to higher demand areas and catalyze additional renewable energy deployments.



KEY CLCPA TARGETS*

70% renewable
energy generation
by 2030

100% zero-carbon
electricity
by 2040

6,000 MW of distributed
solar by 2025

> NYPA is committed to enabling
the installation of 325 MW
of distributed solar by 2025

3,000 MW in energy storage
by 2030

> NYPA aims to develop 300 MW
of utility scale storage and
enable 150 MW of distributed
storage by 2030

**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*

2020 Renewable Energy and Storage Milestones

- > Initiating the **Moses-Adirondack Smart Path Reliability Project**, which will ensure a more robust, resilient and reliable electric system upstate to provide 900 megawatts (MW) of renewable energy, benefitting the equivalent of 900,000 homes state-wide
- > Advancing construction of **33 MW of distributed solar**, planned to become operational in 2021
- > Undertaking our second large-scale renewables Request for Proposals, **securing 110 MW of renewable energy supply for customers**
- > Advancing construction of our **first utility-scale energy storage project**, the 20 MW North Country battery storage project
- > Entering into a collaboration with a private developer on a **100 MW energy storage project** sited at Charles Poletti Power Project
- > Executed our **first "solar-plus-storage" power purchase agreement** at the Javits Center, which constitutes the largest solar-plus-storage project under development in Manhattan



INVESTING IN SUSTAINABLE INFRASTRUCTURE WITH GREEN BONDS

Last May, NYPA issued \$1.2 billion in long-term bonds—including nearly \$800 million of the debt designated as “green bonds”—primarily for planned transmission projects. The successful bond issuance, including NYPA’s first “certified” green bond with an independent second party sustainability opinion, was also the largest green bond transaction for any public power utility. The issuance, which achieved its green certification based upon the identified projects’ use of proceeds, project evaluation process, proposed management of bond proceeds and intended reporting, affirmed NYPA’s robust credit rating amid disruptions in business conditions from the pandemic and demonstrated our commitment to improving asset efficiency and resiliency.

ENERGY STORAGE IN NEW YORK CITY

In 2020, NYPA entered into a collaboration with an energy storage developer to support the development of a 100 MW energy storage project in Astoria, Queens. The project was awarded under Consolidated Edison’s Bulk Energy Storage solicitation and represents a significant step toward achieving New York State’s energy storage goals. The facility will be constructed on land owned by NYPA and leased to the developer. The property is the former site of the Charles Poletti Power Plant, with the adaptive reuse of this parcel reflecting the evolution of New York City’s grid toward clean energy resources. Once operational, the energy storage project will bolster grid reliability and support the integration of additional intermittent renewable energy sources, such as wind and solar generation.



CASE STUDY

COMMUNITY SOLAR PROGRAM

Our Community Solar Program puts renewable energy in the hands of more New Yorkers. We serve as a trusted energy advisor to customers across the state for solar installations at public facilities and properties by performing site assessments, issuing Requests for Proposals, working with developers, providing project support and structuring contracts for participating entities.

The City of White Plains and Westchester County, for example, are adding approximately 9 MW of solar capacity at multiple locations through this program. This has led to a county-wide community solar aggregation in which county municipalities may participate.

In 2020, NYPA and the Port Authority of New York and New Jersey teamed up to implement one of New York State's largest community solar projects at JFK International Airport, with 13 MW of solar generation and 7.5 MW of onsite battery storage.

The project will eliminate almost 6,700 tons of annual CO2 emissions. JFK will benefit from clean solar energy and provide excess power to the local community grid, resulting in cheaper energy for the airport and a lower carbon footprint for its neighbors.

Once completed, this will be the largest solar-plus-storage project in New York State.

Energy Reliability

Our customers depend on us to provide reliable energy, and delivering on that promise is core to our mission. As natural and manmade threats have the potential to jeopardize our operations and business continuity, a laser focus on reliability is vital to our success.

Our strategic operations and enterprise risk and resilience teams collaborate to enhance and preserve the reliability and resilience of our systems in response to advances in technology, evolving customer expectations, and an increasingly more distributed and uncertain operating environment.



Smart Generation and Transmission (G&T)

By optimizing and testing new smart grid technologies, upgrading our transmission system and modernizing our assets, we aim to increase our ability to adapt to changing conditions, withstand disruptions and recover quickly.

Through simultaneous investments in people, change management, research and development, and continuous maintenance and improvement initiatives, NYPA has instilled a culture of transformation that aligns with the evolving industry.

CAPABILITIES

- > Increased reliability and resilience
- > Enhanced situational awareness
- > Optimized transmission assets
- > Optimized generation assets
- > Integration of bulk renewables
- > Integration of distributed generation

INNOVATION ACTIVITIES

- > Installing sensors across NYPA's physical network to capture a wide variety of asset and performance data
- > Rolling out a secure and extensible communications network with investments in fiber optics, microwave and wireless pathways
- > Building analytic and visualization solutions to convert data from grid sensors into insights, leading to wide-area situational awareness
- > Consistently evaluating new innovative technologies and delivery strategies to ensure technology investments provide the highest return on investment

VALUE CHAIN BENEFITS

- > Decreasing the likelihood of system failures through advanced G&T monitoring, control and protection systems
- > Improving operator effectiveness
- > Enhancing system protection and restoration
- > Ensuring flexibility and efficiency by optimizing transmission asset utilization
- > Maximizing hydro flow and generation capabilities by leveraging automatic controls and predictive maintenance cycles on existing facilities
- > Replacing legacy mechanical to electrical components
- > Reducing operations and maintenance, and inventory value carrying costs
- > Optimizing assets and reducing capital expenditures
- > Enabling the emergence of new business models and innovative ways of working

Modernizing Our Infrastructure

In 2020, we continued to advance several programs essential to achieving our goal of creating and maintaining an intelligent, flexible and resilient G&T infrastructure, and becoming an end-to-end digital utility.

The Communications Backbone aims to improve the efficiency and reliability of NYPA's electric power system. We are installing fiber optic cables and other communications systems along our transmission infrastructure and at our hydroelectric and natural gas facilities. When the project is complete, it will provide a resilient, secure and scalable communication network connecting all our facilities. The network will increase the quantity and quality of available information on NYPA's physical assets and communicate potential equipment problems remotely.

Building on the Communications Backbone, **the Wireless Backbone** is a program to build a secure and robust private wireless LTE network. This network will enhance operational capabilities and increase transmission resilience by providing connectivity to remote sensors that help monitor critical infrastructure in real time, and to drone technology that helps us safely inspect and troubleshoot NYPA's assets. The program will support disaster recovery during emergency management and mutual aid with reliable communication services. NYPA partnered with two major telecommunication companies in 2020 to develop and test private LTE capabilities at the Blenheim-Gilboa power project in Central New York.

Additional infrastructure programs include the **Integrated Smart Operations Center (iSOC)**, a digital hub that helps us increase the operating flexibility of our assets and maximize their efficiency, and **Sensor Deployment Program** and **Advancing Analytics**, both enterprise efforts to digitize and replicate our assets and optimize asset performance.



CASE STUDY

NEXT GENERATION NIAGARA MODERNIZATION AND DIGITIZATION PROJECT

In 2020, NYPA achieved a major milestone in a 15-year modernization and digitization program to significantly extend the operating life of our Niagara Power Project (NIA), which is New York State's biggest electricity producer and one of the country's largest hydroelectric projects.

The first outage for the NIA program, called Next Generation Niagara, commenced in the fall of 2020 and will allow for the installation of new digital controls and connections to the plant's control room and substations. These digital controls will achieve improvements in operations efficiency. System efficiency will continue to increase as more units are upgraded and additional equipment is modernized or replaced.



Energy Efficiency & Electrification

With buildings and transportation accounting for a combined 70% of GHG emissions in New York State, energy efficiency and electrification of these sectors is critical to achieving the state's goals. We are committed to leading by example by increasing the efficiency and electrification of our buildings and vehicle fleet.

Our sustainability team works with project management, fleet management and subject matter experts from other business units to conduct energy audits, solar assessments and fleet analyses, establish energy baselines, and identify project opportunities aligned to the CLCPA, *New Efficiency: New York* and BuildSmart 2025.

We prioritize energy efficiency and electrification in new construction, upgrades to buildings and facilities, and vehicle purchases. Energy usage and associated GHG building emissions are tracked and managed through the NY Energy Manager platform.



Buildings

NYPA and Canals continue to increase the efficiency of the buildings and facilities we own and manage. NYPA's 120 buildings span more than three million square feet. Forty percent serve administrative or support functions, while the remainder house generation and transmission assets. Most of our buildings use electricity from our hydropower facilities, with some using purchased electricity or electricity generated from our natural gas power plants. Canals has 121 buildings spanning more than 250,000 square feet, including offices, warehouses and locks, all of which use purchased electricity.

Under the state's BuildSmart 2025 program, NYPA has a target to reduce energy use across its buildings by 0.12 Trillion British Thermal Units (TBtu) by 2025 (baseline FY 2014-15). The Canals target is not yet confirmed.

NYPA exceeded the BuildSmart NY target to reduce energy use intensity 20% by 2020 (baseline FY 2011-12) in 2018 – **two years ahead of schedule.**

As of March 2020, our **total energy use intensity reduction was 24.7%.**

NYPA's pipeline of BuildSmart 2025 building energy efficiency projects includes:

- > Installation of **advanced building management systems and heating, ventilation and air conditioning (HVAC) controls**, which maintain comfort and can reduce energy consumption by as much as 20%
- > **Light-emitting diode (LED) lighting upgrades**, which increase efficiency, improve safety and lower maintenance requirements
- > **Building envelope improvements**, which minimize temperature loss, save energy and increase comfort
- > Installation of **onsite renewables** which help reduce building electrical load

BUILDING SPOTLIGHTS



NIA CHILLER OPTIMIZATION

We are expanding a program at Niagara to optimize the performance of our chillers by installing smart controls, sensors and variable frequency drives. The first phase of the project at the Niagara Power Vista Visitors Center has achieved an energy efficiency improvement of over 20%. In the second phase, we are implementing the project at two other NIA locations.



ST. LAWRENCE-FDR POWER PROJECT (STL) WATER BALL REPLACEMENT

We are installing a new, glass-lined water tower to replace an older, less efficient water ball equipped with two fuel-oil boilers used for freeze protection. The boilers burn thousands of gallons of fuel oil per year and require daily maintenance. The new water tower will have heaters that use electricity from the hydro plant for freeze protection, reducing GHG emissions and eliminating the inefficient fuel-oil boilers.



EUGENE W. ZELTMANN POWER PROJECT ONSITE RENEWABLES PROJECT

In 2020, we completed a feasibility assessment for onsite renewables at all NYPA facilities and finalized the scope of work for the first project—a 377.5 kW rooftop solar array at the Eugene W. Zeltmann Power Project. This installation, along with four vertical axis wind units previously installed, will help offset the facility's electrical load and associated GHG emissions.

Transportation

NYPA's vehicle fleet consists of 489 vehicles. More than 60% are light-duty, 30% medium-duty and less than 10% are heavy-duty. Canals' fleet consists of 245 vehicles. About half are light-duty and half are medium-duty vehicles.

NYPA's goal is to electrify the light-duty fleet 50% by 2025 and 100% by 2030—exceeding New York State's 25% by 2025 target for state fleets.¹ We have also set a target to reduce the GHG intensity and absolute GHG emissions of NYPA fleet vehicles 25% by 2025 and 40% by 2030, from a 2014 baseline.

WORKPLACE CHARGING PROGRAM

The Workplace Charging Program provides guaranteed charging access to employees while at work, reducing concerns about vehicle range and making electric vehicles (EVs) a viable commuting option. With more than 60 employees across NYPA sites enrolled, the program has been an effective way to encourage EV adoption.

¹As outlined in the Zero Emission Vehicle Memorandum of Understanding (ZEV MOU).

VEHICLE ELECTRIFICATION INITIATIVES

- > **Replacing all NYPA light-duty fleet vehicles with EVs and plug-in hybrids by 2030**, with infrastructure installed at all sites for vehicle charging.
- > **Testing emerging electric technologies** in medium-duty applications to help advance technology development and the market for EVs.
- > **Providing guaranteed EV charging access** to employees at all NYPA facilities.
- > **Hosting EV ride and drive events and providing EV training to employees for public engagement events**, in recognition of the important role education plays in advancing our vehicle electrification goals.

Environmental Stewardship

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 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.

“NYPA aims to lead by example in promoting nature-based measures for climate change adaptation and mitigation. Our habitat restoration and rights-of-way management programs are designed to protect biodiversity, increase resilience and promote natural carbon sequestration, and we are developing new initiatives that build on these efforts.”

KERRY-JANE KING, NYPA DIRECTOR OF SUSTAINABILITY

Water Resilience

NYPA and Canals' reliance on water resources reinforces our commitment to protecting and increasing resilience in the watersheds in which we operate.

NYPA continues to implement projects to restore and maintain wetland areas as part of our re-licensing and re-permitting efforts. We also maintain a wetland management program, in collaboration with the New York State Department of Environmental Conservation (NYSDEC), that optimizes water levels in areas adjacent to NYPA facilities to correspond with seasonal cycles and weather events. We are building on these efforts and working with EPRI to develop a water resilience roadmap that will identify additional opportunities to protect ecosystems and increase resilience in the watersheds in which NYPA operates.

Through *Reimagine the Canals*, we are developing a long-range program to mitigate impacts from flooding, improve resiliency and restore ecosystems along the canal system. This includes a wetlands restoration project at sites adjacent to the Montezuma Wildlife Refuge, an important habitat for migratory birds. The project will help with pollution treatment and nutrient recycling, surface groundwater protection, flood and stormwater control, and erosion prevention.

Protecting Ecosystems

We use best management practices to minimize the environmental impacts of our operations and are working to improve ecosystem health, enhance natural carbon sinks and increase resilience to climate impacts through a range of programs and initiatives.

- > Over the past 16 years, as part of state and federal re-licensing and permitting of our hydroelectric generating facilities, we have **restored more than 3,850 acres of wildlife habitat**. We continue to maintain these protected areas and aim to expand our habitat restoration efforts in the future through additional funding mechanisms.
- > We maintain a **rich pollinator habitat** along our rights-of-way through a leading practice Integrated Vegetation Management (IVM) program. By controlling tall growing plants with minimal disturbance and promoting sustainable compatible vegetation, we are supporting pollinators and **protecting natural carbon sinks**.
- > In a new initiative to promote biodiversity, we are **creating pollinator gardens and meadows** at visitors centers, facilities and adjacent locations. We are also developing pilot projects to demonstrate best practices in **restoring healthy forest understory and enhancing natural carbon sequestration**. The first pollinator garden will be completed at NYPA's Power Vista Visitors Center in Niagara in 2021.
- > We continue to **support tree planting** at customer facilities under our Tree Power program and are expanding the program to include more customers and locations. Only trees native to the region are selected.
- > We are **raising awareness about biodiversity and natural climate solutions** and promoting sustainable land management practices through public education campaigns, courses for visiting school groups and employee training.
- > NYPA and Canals use best management practices to protect areas during construction and maintenance projects, resulting in **no significant impacts on habitat or biodiversity**.

Reducing Waste

We aim to use resources efficiently and have implemented several workplace initiatives to reduce waste generation:

- > Providing reusable dishes in office kitchens and installing water coolers to reduce use of disposable items
- > Creating “swap stations” for surplus office supplies
- > Removing desk-side receptacles and installing centralized waste stations for proper waste sorting and recycling
- > Conducting employee training on waste reduction, reuse and recycling

In 2020, although many employees were working remotely, we continued to hold educational campaigns and events on waste, including our annual “Refuse Single Use Challenge” and a speaker event on America Recycles Day.

We also registered 29 facilities in a Zero Waste to Landfill program, setting the foundation for a multi-year initiative that aims to significantly reduce waste generation across all sites. This will include a waste audit, improved waste data tracking, an assessment of potential waste reduction and recycling strategies, and employee engagement and training.



In 2020, NYPA and Canals were fully compliant with all applicable environmental regulations and legislation for management of water, hazardous waste and air emissions—**receiving zero fines or sanctions.**



Health & Safety

Ensuring the health and safety (H&S) of our employees, contractors, customers and host communities has always been paramount to our business success and performance. Never has this been more apparent than in the face of a global pandemic. And yet, never have we had more confidence in the resilience of our customers, our employees and the residents of New York State.

We are proud of the ways in which NYPA and Canals effectively supported and protected our people, customers and communities through the most disruptive event in memory.





Mounting a Swift and Effective COVID-19 Response Strategy

NYPA and Canals' swift and comprehensive response to the pandemic focused on protecting the health and safety of our workforce, as well as anchoring the power grid and providing essential services like keeping the lights on at hospitals.

NYPA was among the first U.S. electric utilities to arrange for mission-critical employees to sequester in place around-the-clock at six of our major generation and transmission facilities, where we protected them from infection and ensured the continuity of our vital infrastructure. We also provided employees with free on-site COVID-19 testing and flu shots, and mailed health kits to employees' homes that included face masks and thermometers.

In addition to these H&S measures, we placed a greater emphasis on employee physical and mental well-being by expanding the "Be Mindful" initiative, which includes 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

Health & Safety Program and Performance

Our H&S program emphasizes workplace and job hazard analysis, safety controls, hazard elimination, training, education and continual improvement. Leadership is committed to providing a safe and healthy workplace, striving for full employee participation to help identify H&S hazards and proactively implement prevention controls.

We ensure NYPA and Canals employees are highly trained and skilled in their respective crafts and equipped to safely engage in the high-hazard job activities inherent in some employees' duties—such as working at considerable heights, with high voltage and near open waters.

We strive to create work environments free from recognized hazards and in compliance with applicable statutory and regulatory standards.¹ Our robust management, oversight and training program focuses on ensuring our operators, contractors and technicians carefully operate and maintain power generation and transmission equipment.

¹NYPA and Canals are subject to regulation of the New York State Department of Labor (NYS DOL) Public Employee Safety and Health Bureau (PESH), created in 1980, which adopts and enforces safety and health standards that meet or exceed those promulgated under the United States Occupational Safety and Health Act, which created the Occupational Safety and Health Administration (OSHA). NYPA and Canals must also comply with the appropriate H&S regulatory requirements of the United States Coast Guard, New York State Public Service Commission and other program areas under the jurisdiction of the NYS DOL.



HEALTH & SAFETY MANAGEMENT APPROACH

- > Our detailed H&S program is managed in each region by our environment, health and safety (EH&S) managers and safety administrators.
- > Our EH&S department supports site programs and develops policies that are implemented across the organization. The team also employs a full-time occupational health nurse practitioner to address health and safety concerns.
- > Our management and union safety committees identify and address H&S issues at all NYPA and Canals operational sites, conducting regular safety inspections and tailgate safety talks.
- > We conduct regular internal audits of our H&S program, alongside a third-party audit every three years.
- > We provide regular training to employees in accordance with applicable statutes, regulations and other standards.
- > We are also committed to ensuring public safety in communities that host our facilities by implementing refreshed H&S policies, fostering relationships with agencies active in those communities, conducting regular safety assessments, and expanding public safety signage and protocols.

NYPA SAFETY PERFORMANCE

- > Reduced DART rate² by 60% (from 0.97 to 0.39) between 2018 and 2020, against an annual target of 0.78
- > Total employee recordable injury rate at NYPA sites fell by 72% between 2018 and 2020
- > Zero employee fatalities between 2018 and 2020
- > Exceeded our annual targets for tailgate safety talks by 26% (target: 1,832; actual: 2,307) and safety walkdowns by 92% (target: 360, actual: 690)

CATEGORIES	2018	2019	2020
EMPLOYEE DART RATE	0.97	0.76	0.39
TOTAL EMPLOYEE RECORDABLE INJURY RATE	1.73	1.22	0.49
TOTAL EMPLOYEE FATALITY RATE	0	0	0
NEAR MISSES (TOTAL)	428	439	466

CANALS SAFETY PERFORMANCE

From 2012-2017, the Canals DART rate was 5.9. This rate improved in 2017, its first year under NYPA, to 4.95. Recognizing the need to create a culture of safety and to support reaching the Canals DART target of 3.5, a Safety Improvement Committee was established between NYPA's EH&S department and Canals' leadership team. The committee fosters ongoing, transparent dialogue around safety improvement measures for the future.

² Days Away, Restricted or Transferred, used as a metric by OSHA to measure the impacts of workplace injuries.

Employee Development

Our people are our greatest asset, and we want to equip them to thrive and reach their full potential in a dynamic industry and a changing work environment.

We attract, grow and maintain our diverse workforce by supporting employees' career advancement and encouraging them to take ownership in their career development.

Employee development is managed at the organizational level through a regular review of workforce needs, employee engagement surveys and other forums for capturing employee feedback. Employees are empowered to drive their career development through the career development platform, talent development programs and performance management processes. Efforts are coordinated by the chief human resources and administration officer, vice president of organizational development and human resources, and chief DEI officer to ensure we create a more diverse, equitable and inclusive workforce. The effectiveness of employee development programs is regularly evaluated through performance indicators and employee engagement metrics.

NYPA was awarded the **Forbes Best Mid-Size Employer** distinction in 2018, 2019 and 2021, the first time a New York State authority has been recognized and a testament to the strength of our employee development programs.



Training and Development Programs

We hold ourselves to the highest standard, enabling NYPA and Canals employees to do their best work. Our employee engagement and talent development programs drive learning, shape organizational culture, and ensure employees can obtain the skills and experiences needed to advance professionally and bring our mission to life.¹

Comprehensive employee training and development programs include:

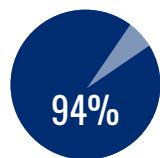
- > Customized teambuilding activities to engage staff in behaviors that drive performance
- > Curated learning curriculum to develop knowledge and skills
- > Immersive learning experiences, including The Blue Standard suite of manager and leadership training programs and access to an employer paid onsite MBA program—in partnership with a nationally recognized sustainable business program

- > Innovation challenges, such as the Eureka! program which provides a forum for employees to share innovative ideas on a range of topics, including operational improvements, sustainability opportunities and community engagement
- > Continuous improvement projects to optimize our core business processes and increase our workforce effectiveness—resulting in over \$10 million in cost and capacity savings

We recognize the importance of modeling sustainable practices to effectively influence corporate culture and make every effort to embed a sustainability mindset in employee engagement programming.

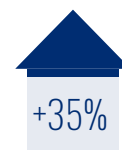
¹All our employee development programs are available to non-union employees. Union represented employees participate in programs as negotiated with union leadership and outlined in collective bargaining agreements.

EMPLOYEE ENGAGEMENT HIGHLIGHTS



Between 2018 and 2020, over 94% of NYPA employees received regular performance and career development reviews

In 2020, the total retention touch points* for NYPA employees achieved 200% of the annual goal



Employee engagement initiatives led to a 35% increase in overall engagement scores between 2015 and 2019

^{*}Retention touchpoints are defined as an employee's engagement with talent development programs

CASE STUDY

DRIVE BLUE

Launched at the end of 2019, the DRIVE BLUE manager development program empowers managers to build engaged, adaptable teams that meet the needs of a transforming industry. DRIVE BLUE offers managers the opportunity to invest in their own development, keeping their skills current while meeting new and evolving workplace demands.

The program curriculum is grounded in manager competencies and touchstone learning experiences, while also including coursework around DEI topics and management practices to underscore our commitment to embedding DEI across the enterprise.

Managers may self-select their learning path, choosing from applied skills practices, panel discussions with NYPA experts and e-learning courses based on their unique development needs and interests.

Diversity, Equity & Inclusion

Diversity, equity and inclusion (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 for several years, stemming from the creation of the Office of Civil Rights & Inclusion (OCRI), we recently doubled our investment in DEI and crafted an enterprise-wide DEI program to ensure we are an employer of choice within the utility industry.



2020 DEI Milestones

Introduced a holistic, five-year **Ten-Point Diversity, Equity and Inclusion Plan**

Joined the **American Association of Blacks in Energy (AABE) Energy Equity Initiative**—the first energy company in the nation to do so

Launched a virtual program for **young women as future STEM leaders**, in collaboration with a local community college

Continued to **support staff virtually** with Employee Resource Group (ERG) programming, workshops, forums and safe spaces

Held **Special All Hands Meeting** in response to the summer's social unrest

Launched training to educate employees on how to **be an “Upstander”** against racism and build a culture of inclusion and respect

NYPA DEI TARGETS (2021-2025)

90%

DEI training completion rate per year achieved

90%

of employee development plans completed

40%

participation rate for specialty programs reached

30

annual ERG engagements established



Reinforcing our Commitments

By becoming the first energy company in the nation to join the AABE Energy Equity campaign, we committed to diversifying employment, leadership, business contracting and workforce development at NYPA and in the energy industry.

Our **Ten-Point Diversity, Equity and Inclusion Plan** was introduced in 2020 to catalyze this commitment by:

- > Proactively implementing solutions to address populations traditionally underrepresented in the utility industry
- > Educating our employees on racial justice and antiracism
- > Strengthening NYPA's environmental justice ties in communities throughout New York State
- > Growing our diverse supplier and partner relationships

The plan was developed with support from a newly established DEI working group, anchored by executive leadership, human resource centers of excellence, environmental justice and strategic supplier management. Programs are designed utilizing KPIs with the intent to provide tangible solutions for both our internal and external communities.

INTERNAL COMMITMENTS

- > Expand ongoing training to NYPA employees on antiracism, unconscious bias, microaggression and cultural competency
- > Create pathways for career development and upward mobility for NYPA employees and invest in our workforce to increase representation, starting with BIPOC (Black, Indigenous and People of Color) and other underrepresented groups
- > Reaffirm NYPA's commitment to building and maintaining a diverse, equitable and inclusive culture

EXTERNAL COMMITMENTS

- > Broaden NYPA's community-based STEM, student internship and mentorship programs to increase the pipeline of diverse utility and clean energy workers for tomorrow
- > Leverage NYPA's experience, resources and purchasing power to build capacity and access for Minority and Women-owned Business Enterprises (MWBs)
- > Create an enterprise-wide employee service program dedicated to volunteer activities in environmental justice communities

Governance and Workforce Diversity

Our governance bodies—consisting of the Board of Trustees and EMC—are collectively responsible for guiding our DEI strategy and management. Recognizing this material topic as core to our mission and success, NYPA and Canals' leadership is committed to ensuring the accountability of our DEI management to the broader organization and our stakeholders.

We further hold ourselves accountable for the implementation of our Ten-Point Diversity, Equity and Inclusion Plan with oversight from our first chief DEI officer, who reports directly to both the president and CEO and the executive vice president and chief human resources and administration officer. Internal DEI efforts are also managed through a regular review of workforce needs, data inputs, hiring trends, employee complaints and requests, and feedback from ERGs and leadership.

We have a multigenerational workforce, with differences in representation across race and gender driven by geography and job classification. We analyze demographic data regularly across various employee categories, and plan to conduct further analyses of race and gender with an independent third party in 2021.

“We are committed to walking the walk and talking the talk when it comes to racial justice and equality, diversity and inclusion. We will hear, at every governance meeting, from our Diversity, Equity and Inclusion team, led by our newly appointed chief diversity, equity and inclusion officer, to ensure that we are making progress against our Ten-Point Plan.”

GIL QUINIONES, NYPA PRESIDENT AND CEO



Community Engagement

Being a good neighbor and environmental steward means being responsive to community needs. That is why we are committed to ensuring the communities in which NYPA and Canals operate have access to clean, renewable energy that creates jobs and continues to build a green economy.

Community engagement is a collaborative, multi-tiered effort, targeting different stakeholder groups. These include community organizations, local community members, elected officials and over 1,400 NYPA customers, in addition to Canals stakeholders located along over 500 miles of Canal and trail systems.

Our engagement approach is designed to leverage our expertise in energy to provide programs and services that meet the unique needs of our **customers** and **communities**.

- > **Customer programming and enhanced customer engagement services** focus on meeting customer needs and assisting with CLCPA compliance—amplified through the launch of new programs to improve the digital customer experience and regularly evaluate customer feedback. As part of VISION2030, we established a new corporate goal for customer engagement and will improve customer satisfaction by more than 10% by 2030.



- > We host regular educational programs and outreach activities for **local communities and the general public that reach thousands of New Yorkers each year**, including community events such as the Wildlife Festival, Festival of Trees, electric vehicle ride and drives, and regular holiday and movie events.¹ NYPA also leads educational tours of our visitors and nature centers, hosts STEM camps and offers classes for school groups on a variety of energy topics. Many of NYPA's programs, all provided free of charge, are designed to increase public awareness around sustainability and climate change, promote sustainable practices and encourage the adoption of clean energy technologies.
- > Our **Environmental Justice (EJ) program** also has a wide reach, involving **hundreds of community partners** each year and focusing on four key areas: STEM education, Adult Energy Literacy, Community Energy Efficiency Projects, and Community Engagement and Advocacy. Programs range from student STEM trainings, to supporting energy upgrades in local housing authorities, to educating low-income homeowners and renters about simple ways to conserve energy and lower utility costs without compromising comfort or safety.

Environmental Justice (EJ) is driven by a commitment to be a good neighbor to historically disadvantaged and marginalized communities located near our state-wide facilities, assets and programs (*four-mile radius in an urban area, 10-mile radius in a rural area*). The EJ team also serves as an internal advocate across NYPA and Canals, ensuring that community concerns are prioritized and incorporated into enterprise-wide programming and activities.

¹For health and safety reasons, event restrictions and limitations around the COVID-19 pandemic impacted the occurrence of annual NYPA and Canals events for 2020.





NYPA GIVING WEEK

The annual "NYPA Giving Week" initiative hosted in conjunction with Martin Luther King Jr. Day encourages volunteers across NYPA and Canals' facilities to partner with area food banks and pantries.

In 2020 Clark Energy Center employees delivered 2,200 pounds of non-perishable food items to an area food bank—Utica Feed Our Vets Pantry—supporting military veterans in need and their families.

CASE STUDY

MEETING OUR COMMUNITIES WHERE THEY ARE, WITH WHAT THEY NEED

As the pandemic raged on over the course of 2020, we were thoughtful in making choices to close or reopen our visitors centers and other state-wide sites, working together across the organization to procure proper Personal Protective Equipment (PPE), install upgraded ventilation systems, and enact best practice protocols to ensure the health and safety of our employees and guests.

The COVID-19 pandemic significantly impacted our ability to deliver in-person EJ programs and community events. However, we swiftly adapted with the launch of a suite of virtual classroom modules reaching over 2,600 stakeholders. We also launched a research project on the environmental impact of indoor agriculture and food production, which in addition to delivering educational insights also produced a supply of year-round fresh produce to stakeholders economically impacted by the pandemic.



CASE STUDY

ADDRESSING RACIAL JUSTICE IN THE ENERGY SECTOR

In July 2020, NYPA became the first energy company in the nation to join the AABE Energy Equity Initiative, with an aim to increase the representation of African Americans in employment, leadership, business contracting and workforce development in the energy industry.

“Like NYPA, we believe that working together we can be a better industry when we embrace opportunities to improve the representation of African Americans in the energy industry. With its Ten-Point Plan, NYPA is the first energy company to join our Energy Equity Initiative. NYPA has long demonstrated support for communities during times of great need.”

**PAULA R. GLOVER, FORMER PRESIDENT AND CEO,
THE AMERICAN ASSOCIATION OF BLACKS IN ENERGY**

Programs within this partnership—such as those featured below—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 its 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.

Access & Affordability

We strive to deliver low-cost power and energy services to all our customers, including state agencies and local governments, businesses, and municipal and rural electric cooperatives. Further, we promote economic development to bolster community livelihoods in all parts of the state through the creation and retention of thousands of jobs, including Green Jobs.

This focus on access and affordability is organization-wide, with oversight from the EMC and Board of Trustees. Our operations business unit is responsible for producing the low-cost power that supports our economic development programs, as well as delivering a full range of energy solutions in the areas of clean energy supply, energy efficiency, distributed solar and storage, and electric transportation.





Investing in Access & Affordability

Between 2018 and 2020, we helped customers save

212,196 MWh

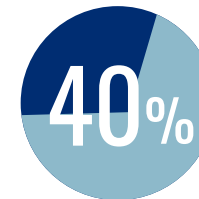
of electricity with our energy efficiency programs.

LOOKING AHEAD, NYPA PLANS TO:

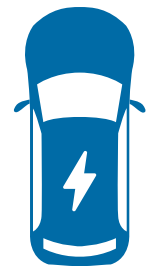


Finance up to
\$3 BILLION
for energy efficiency
projects at customer
facilities by 2030

Achieve
\$550 MILLION
of third-party investment in
customer sited renewables
by 2025



will be sited in low- to
moderate-income (LMI)
communities



Invest over
\$100 MILLION
in EV charging
infrastructure by 2025

NYPA will continue to support customer climate goals, including those outlined in the CLCPA, BuildSmart and New York City Local Law 97.



2020 Customer Energy Efficiency and Electrification Milestones

- > We began installation of energy-saving LED streetlights throughout Utica, designed to save the city more than \$1.5 million annually and reduce GHG emissions by approximately 2,280 tons a year—the equivalent of taking more than 1,600 cars off the road.
- > We completed a \$16 million project to install LED streetlights in Syracuse—saving the city \$3.3 million annually and reducing GHG emissions by nearly 8,500 tons a year.
- > We partnered with the Metropolitan Transportation Authority on platform lighting upgrades at Grand Central Terminal to reduce GHG emissions by 1,655 tons a year, resulting in significant savings in energy and maintenance costs.
- > We equipped *Maid of the Mist* at Niagara Falls to launch the first all-electric vessels in the nation by providing clean, renewable hydropower.
- > We installed 14 high-powered bus chargers at three transit agencies, as well as new DCFC and L2 chargers for the New York State Thruway Authority.
- > Together with the NYSERDA, we launched a \$1 million Transit Bus Electrification Master Plan that includes electrification roadmaps for the five largest upstate and suburban transit agencies in New York State.



CASE STUDY

BUILDSMART PROGRAM

New York State has set a state-wide target to reduce energy use by 185 TBtu by 2025, from a FY 2014-2015 baseline. The New York State BuildSmart program directs state agencies and authorities to lead by example in building energy efficiency to meet these ambitious targets. NYPA is the state-wide coordinator for the BuildSmart program and is responsible for assisting sister agencies and authorities with program implementation.

The first iteration of the program, BuildSmart 2020, targeted a 20% reduction in energy use intensity (EUI) by 2020 (baseline FY 2011-2012) for all agencies and authorities. **The program achieved an EUI reduction of 22.6%, and \$514.2 million in cost savings.**

The current program, BuildSmart 2025, **targets a total energy reduction of 11 TBtu by 2025**, with each state agency/authority allocated a portion of the total. NYPA is working with agencies and authorities to develop project pipelines, and we are making good progress toward the target.

NY Energy Manager is an energy management information platform that enables our customers to monitor and manage energy use, costs and GHG emissions from their buildings. In 2020, we launched the NY Energy Manager dashboard as part of our digital customer experience portal, which is available to over 1,000 NYPA supply customers.

The NY Energy Manager platform supports BuildSmart 2025 tracking and reporting and currently includes over 16,000 facilities, with over 12,000 MMBtu recommended in energy savings.

EVolve NY Vehicle Electrification Initiatives

Under our EVolve NY program, we have made a commitment to invest over \$100 million through 2025 to improve New York State's charging infrastructure and accelerate the adoption of EVs. As part of this effort, we are growing a network of fast, affordable and reliable public charging stations across New York State.

In 2020, NYPA:

- > Opened our first fast charging site in the Mid-Hudson Valley, with units capable of charging an EV in just 20 minutes
- > Finalized a 10-charger site at John F. Kennedy International Airport in Queens—the largest publicly-accessible fast charging site in the Northeast
- > Installed three charging stations in the North Country, expanding the feasibility of EV ownership to a new region of the state
- > Created our first “EV Accelerator Community” in the town of Fairport, a partnership to accelerate the adoption of EVs and integrate them into municipal infrastructure, community and culture

By the end of 2021, NYPA's fast charging network will stretch from Buffalo to New York City, counting more than 150 fast chargers. Our goal is to install up to 800 new fast charging stations throughout New York State by 2025.



Economic Development

We are building up communities across New York State by offering low cost, renewable hydropower to eligible commercial and industrial customers that are making capital investments and creating jobs. As of December 2020, NYPA's economic development programs supported over \$21 billion in capital investment and created or retained 400,000 jobs.



Economic Development Programs

- > **ReCharge NY (RNY)** provides 910 MW of hydro and market power to support **business attraction, expansion and retention** across the state.
- > Western New York (WNY) Hydropower (**Expansion Power** and **Replacement Power**) provides 695 MW of hydropower generated at NIA. The program seeks to encourage **business attraction and expansion of existing facilities** located within a 30-mile radius of the Power Project. 20 MW has been made available for business expansion and attraction in Chautauqua County.
- > **Preservation Power** is comprised of 490 MW of hydropower generated at the STL Power Project that may be allocated to eligible businesses located in the Franklin, Jefferson and St. Lawrence counties. The program is offered as an incentive to encourage **business expansion and attraction**.
- > NYPA also offers grant funding to support capital project development in certain geographic regions.
 - > The **WNY Economic Development Fund** (Proceeds) is available to eligible applicants located within a 30-mile radius of NIA.
 - > The **Northern New York (NNY) Economic Development Fund** (Proceeds) is available to eligible applicants located in St. Lawrence County.

NYPA's economic development programs are managed by the Clean Energy Solutions department. Applications are reviewed against a number of statutorily established criteria, including capital investment, job impact, significance of cost of electricity, and alignment with regional economic development strategies and priorities. Program awards are made on a competitive basis with input from regional economic development stakeholders (Economic Development Power Allocation Board (EDPAB), WNY & NNY Regional Stakeholders, Proceeds Allocation Boards). All awards are reviewed and approved by NYPA's Board of Trustees.

CASE STUDY

ECONOMIC DEVELOPMENT CUSTOMER ASSISTANCE PROGRAM (EDCAP)

Recognizing that COVID-19 negatively impacted New York State's economy in a significant, long-term way, NYPA responded by creating EDCAP, a program that provides fiscal relief to economic development power customers during the ongoing pandemic with assistance such as relaxed payment terms and additional hydropower.

"We are committed to **supporting our economic development customers** through this challenging time. NYPA's low-cost hydropower is the lifeblood for hundreds of businesses across the state, **supporting hundreds of thousands of jobs**. It's critical that we ensure the benefits of our support are sustained during this devastating pandemic."

JOHN R. KOELMEL, NYPA CHAIRMAN

EDCAP PARTICIPATION AND IMPACT

43%

of eligible customers had monthly bills deferred for a period of up to six months

>50%

of customers received additional hydropower allocations under current job and capital investment commitments

Reimagine the Canals

Launched in January 2020, *Reimagine the Canals* is a \$300 million initiative designed to adaptively reuse New York State Canal infrastructure for the economic and recreational benefit of New Yorkers, while driving operational efficiency in the system itself. The program's vision, once fully implemented, will reimagine the Canal system as a civic asset that can assist in the revitalization of upstate New York communities.

The initiative celebrates historic canal structures, develops canalside attractions and activities, adaptively reuses canal infrastructure, and implements operational improvements to decrease cost and generate revenue. NYPA's "Reimagine" team, in coordination with Canals, is responsible for the implementation of this program. Since its launch, over 70% of the overall \$300 million initiative has been earmarked for more than 20 projects. Key projects to be developed and constructed by 2025 include:

- > **Guy Park Manor:** a site being 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
- > **Canastota Pocket Neighborhood:** a canalside pocket neighborhood development at a former industrial property along the Old Erie Canal
- > **Brockport Loop Pedestrian Bridge:** 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

CANALS 2020 "STAYCATION"

The summer 2020 "Staycation" initiative promoting COVID-safe, outdoor recreational opportunities for state residents provided more than 2,800 participants with access to kayaking and biking activities. NYPA conducted a risk assessment of this program before launch, in light of additional H&S considerations.



A man in a blue checkered shirt is seated at a desk in a control room, looking at a large curved monitor. The room is filled with multiple large screens displaying various data visualizations, including line graphs, bar charts, and a world map. The overall atmosphere is professional and data-driven.

GOVERNANCE

Enterprise Risk & Resilience

Our operating environment is becoming increasingly distributed and uncertain. However, with cross-functional risk management and resilience programs that leverage enhanced capabilities, NYPA and Canals are equipped to thrive in a shifting landscape and to protect and enhance the value we bring to New York State.

NYPA and Canals support a forward-leaning, risk- and resilience-aware organizational culture by:

- > Cascading and cultivating the tone from the board, EMC and Executive Risk Management Committee to socialize risk awareness, appetite and tolerance, and to enhance decision-making across all echelons of the organization
- > Implementing a framework to enable personnel to identify a broadened view of typical and atypical emergent threats, risks and consequences, and to manage, mitigate and escalate challenges in accordance with NYPA's risk appetite
- > Promoting a strong governance culture that enables plan execution while minimizing unnecessary risk, and that integrates processes and capabilities to prepare for, respond to and recover from future disruptions and unintended consequences



Managing Risk and Resilience

Maintaining and strengthening NYPA and Canals' risk and resilience posture is a shared responsibility amongst all stakeholders. Our risk management and resilience approach provides transparency and visibility across the organization to ensure all leaders and personnel are equipped to contribute to NYPA and Canals long-term success.

Starting at the highest levels of the organization, the risk and resilience team facilitates recurring updates and information exchanges during Board of Trustees and Finance & Risk Committee meetings to validate and inform program frameworks, risk appetites, objectives and priorities. This information is cascaded to several committees that enable cross-cutting support of risk and resilience awareness and activities, including an Executive Risk Management Committee that convenes business unit leaders monthly to discuss, resolve and create actions plans around risks that have the greatest impact on our organization, and a NYPA Secure & Resilient Committee that convenes departmental leaders to provide guidance, facilitate communication, and help build a culture of security and resilience across our organization.

In addition, the risk and resilience team ensures a common understanding of program responsibilities, requirements and objectives across the enterprise, and promotes risk and resilience messaging and best practices through our AllWays Resilient Awareness Campaign, team trainings, drills and exercises, a weekly Resilience Call and issue escalation to the Executive Risk Management Committee.

In 2020, the resilience, strategic supply management and supplier relationship management teams partnered to identify and assess voluntary actions to manage risks with NYPA's supply chain security and to enhance supply chain resiliency, including a supply chain risk questionnaire that addresses concerns raised by the North American Transmission Forum, and processes following the spirit of the Prohibition Order in accordance with Executive Order 13920 Securing the United States Bulk-Power System. Resulting recommendations were presented to the Executive Risk Management Committee.





Enhancing Risk and Resilience Capabilities

NYPA and Canals is committed to bringing its risk- and resilience-aware culture to the forefront, from the top-down, by leveraging strong support from the Board of Trustees, Finance & Risk Committee and EMC.

NYPA's commitment to risk management and resilience manifested with the deployment of the Enterprise Governance, Risk and Compliance System (EGRC) that provides a common framework for managing policies, internal controls, risks and assessments across the organization, thereby enabling cross-functional collaboration, alignment and reporting. The solution empowers personnel to self-identify, manage and measure their own risks. It also improves the risk and resilience team's capabilities to connect the dots between different functions, positioning NYPA to better manage risk, prepare for and adapt to changing conditions, and withstand and recover rapidly from disruption.

In 2020, NYPA deployed the EGRC system. Along with offering enhanced capabilities, the deployment of the EGRC system supports our strategic initiatives, such as the VISION2030 foundational pillars Digitization and ESG, by advancing informed and transparent decision-making.

Regulatory Management & Compliance

As the nation's largest state-owned public utility, NYPA is committed to leading by example to ensure all corporate and business unit policies, procedures and practices comply with 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 in relevant energy market issues that impact the implementation of renewable energy resources and transmission construction.

When appropriate, NYPA participates in NYISO, PJM Interconnection LLC (PJM) and New York State Transmission Owners (NYTO) meetings to:

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

We collaborate with other utilities and industry stakeholders to stay up-to-date on legislation and regulations and drive best practices in the energy industry. We also share operational best practices with trade associations and through transmission/generation forums.





Managing Risks through Regulatory Management and Compliance

We promote a culture of risk management and resilience through development and execution of robust regulatory management and compliance programs.

- > **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)
- > **Internal Business Controls Group**, established in 2020 and dedicated to helping management identify, promote and strengthen internal controls across NYPA
- > **Internal Audit Department**, which works closely with the risk management team to ensure effective integration of risk and exposure into the enterprise risk management program and collaborates with the Office of Ethics and Compliance to enhance internal controls and mitigate insider threats and fraud risks
- > **Ethics and Compliance Program**, overseen by the Office of Ethics and Compliance, which advises on the legal, regulatory and NYPA Code of Conduct ethics and compliance standards relating to our employees and operations, while also coordinating the investigation of allegations and concerns involving NYPA and Canals' assets and employees
- > **Environmental Regulatory Compliance Program** aligned with relevant legislation such as the Clean Air Act, Clean Water Act and New York State Environmental Conservation Law
- > **External Employee Concerns Line**—1-877-TEL-NYPA—enabling employees to report allegations or concerns related to statutory and regulatory compliance and adherence to policies and procedures

Compliance-related activities are overseen by the EMC and the Board of Trustees' Audit Committee, Governance Committee, and Finance & Risk Committee, reinforcing the commitments of NYPA and Canals' leaders to institutionalize a culture of compliance across the organization.



ESTABLISHING REGIONAL EH&S DEPARTMENTS AND MANAGERS

In 2020, NYPA implemented an enterprise-wide organizational change to improve our environment, health and safety (EH&S) performance, establishing an EH&S department in each of our New York State regions. Having these EH&S professionals in one department enhances resilience, knowledge transfer and succession planning efforts by providing an increased breadth of oversight.

We also created a new leadership role, the EH&S manager, that reports directly to the regional manager and indirectly to the corporate vice president, EH&S. The EH&S manager is responsible for his or her respective region's compliance with applicable regulations promulgated by OSHA, PESH, USEPA, NYSDEC, USACOE, SHPO, and NYS and NYC DOH, and for championing NYPA's goal of continual improvement in EH&S performance.

ETHICS AND COMPLIANCE REPOSITORY

The Office of Ethics and Compliance maintains an electronic inventory of all statutory and regulatory mandatory reporting and training affecting NYPA and Canals. In the fall of 2019, the Repository was enhanced with compliance reporting and training profiles (approximately 290) and modified to include a "compliance owner" field. Compliance owners now have the ability to attach reports and supporting documentation, creating a comprehensive record that will be retained with each reporting and training profile.

CASE STUDY

MANAGING AND ENHANCING GRID RELIABILITY THROUGH REGULATORY COMPLIANCE

Our regulatory compliance programs bolster our work to ensure a reliable, resilient and secure grid. We embed regulatory compliance within our operational processes, striving to implement controls and practices that go above and beyond required regulatory activities.¹

We have robust internal programs focused on compliance and performance improvement, including periodic Reliability Standards Compliance (RSC) assessments to review the controls' adequacy and effectiveness. We also conduct internal audits, peer and industry benchmarking analyses, and surveys.

We have established cross-functional governance processes and collaborate across business units, keeping NYPA leaders informed of initiatives impacting enterprise-wide policies, resources and operations. Our management and oversight policies and processes align with industry standards (such as ISO 55001) and are established with input from leadership, stakeholders and industry.

¹We are compliant with Federal Energy Regulatory Commission (FERC), North American Electric Reliability Corporation (NERC) and Northeast Power Coordinating Council, Inc. (NPCC)—aligning with NPCC Reliability Standards and participating in periodic NPCC internal compliance program evaluations.

Cyber & Physical Security

Navigating our increasingly digital world and protecting NYPA and Canals from cyber and physical threats are critical to organizational safety, security and resilience. By establishing market-leading cyber and physical security programs and building a work environment protected from cyber and physical threats, NYPA and Canals strive to:

- > Deliver secure solutions and services that advance our mission and support operations
- > Increase organization-wide security awareness
- > Ensure response readiness with actionable security standards and training
- > Serve as a model of success for state entities and utility partners by promoting industry best practices in cyber and physical security



Embedding Cyber and Physical Security

The Cyber & Physical Security Committee of the Board of Trustees, coupled with the Executive Risk Management Committee, provide for strong oversight and management of NYPA's physical and cyber security management processes. A defense-in-depth strategy is in place to address security risks across all systems controlled by NYPA and Canals. These are designed to meet or exceed industry standards and comply with applicable regulations for the protection of our facilities, technology systems, employee safety and G&T operating assets. We also work with government and industry partners and participate in information-sharing events, drills and industry conferences to closely track new and emerging threats.

Our cyber and physical security programs implement layered defenses and detection capabilities to protect NYPA and Canals from a range of threats. We also provide user awareness training and share best practices across the organization to minimize risks, for example, encouraging employees to report suspicious activity and phishing based threats.

“As we continue to innovate and provide greater value to our customers through digitization, we must also ensure that we do not create new exposures that could be exploited by cyber-threat adversaries and threaten our critical infrastructure. This evolution will require a new set of cyber security capabilities that are scalable and enable a collective-defense concept to protect NYPA and its customers from a continuously evolving cyber threat landscape.”

ERIC MEYERS, NYPA VICE PRESIDENT AND CHIEF INFORMATION SECURITY OFFICER

LEADING A WORLD-CLASS CYBERSECURITY CENTER OF EXCELLENCE

Our digital ecosystem and the cyber threat landscape are constantly evolving, and our cyber security efforts are expanding across all NYPA and Canal sites to mirror new and emerging trends, such as integrating cloud-based solutions and innovating work-from-home security.

In August 2020, we announced a collaborative partnership with an industry-leading industrial controls provider to establish a Cybersecurity Center of Excellence. This first-of-its-kind industrial cybersecurity monitoring, research and innovation center will focus on detecting and defending against cyberattacks on critical NYPA infrastructure.

The center is a first step in bringing together a coalition of public, private and academic partnerships that will build the core capabilities needed to identify new and existing cyber threats, adopt new technologies to protect digital infrastructure and attract talent to the energy industry.

¹NYPA complies with all regulatory and industry-specific regulations and requirements, such as NERC Critical Infrastructure Protection (CIP) Reliability Standards and FERC Hydrosecurity Standards.

CASE STUDY

ENSURING AN EFFECTIVE AND SECURE COVID-19 RESPONSE THROUGH DIGITAL INNOVATION

At the start of the pandemic, the 120 members of NYPA's IT business unit turned our entire enterprise into a productive and secure work-from-home force in less than five days. Plant operations staff were successfully sequestered and NYPA continued to provide critically needed power to medical centers and field hospitals, including the converted Javits Center in Manhattan.

“COVID-19 posed unprecedented challenges and our information technology team really stepped up to help us adapt to a very unique and trying period. We were able to seamlessly transform our workforce into an efficient remote operation and continue our critical mission of providing affordable, clean and reliable power across the state.”

ROBERT PIASCIK, NYPA SENIOR VICE PRESIDENT AND CHIEF INFORMATION AND TECHNOLOGY OFFICER

Technology solutions NYPA leveraged in this swift response included:

- > Launch of Microsoft Teams, a project that was a pilot experiment for a small group prior to COVID-19, and rapidly developed into a full enterprise deployment in just a few weeks
- > Platforms such as weekly broadcast messages and web conferencing that allowed senior leadership to regularly communicate with staff
- > Applications that provided a fast and efficient way for employees to check-in daily and report on health issues



Supply Chain & Procurement Practices

NYPA and Canals' strategy and success are bolstered with a supplier network spanning more than 7,000 entities that support all aspects of our operations. We recognize the scale of our impact across this broad network.

ADVANCING SUPPLY CHAIN SUSTAINABILITY

We strive to manage our supply chain sustainably and reduce the environmental and social impacts of our operations. We are working to minimize the impacts of our suppliers and purchased products, as well as increase the number of local and diverse suppliers we work with—including New York State businesses, MWBEs and Service-Disabled Veteran Owned Businesses (SDVOB)—and the amount of money we spend on their services.

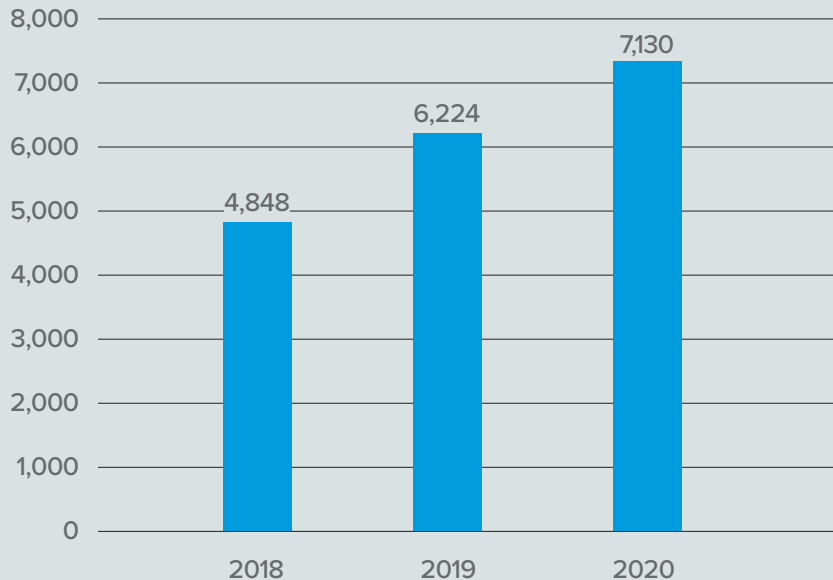
We are integrating ESG into our supply chain by embedding sustainability criteria in procurement processes, continuing to build relationships with suppliers and increasing transparency across our supplier network.

We add approximately 800 suppliers to our network each year, leveraging a robust screening and evaluation process that identifies and prioritizes suppliers based on a range of critical performance indicators including environmental and social impacts. We have also integrated sustainability criteria into our supplier risk modules. In 2020, 67% of new suppliers were screened using ESG criteria.



NYPA was the first New York State government entity to include ESG criteria in its supplier evaluation process.

NUMBER OF SUPPLIERS ASSESSED FOR SOCIAL
AND ENVIRONMENTAL IMPACTS



We regularly engage with our suppliers to build strong relationships and have developed a targeted supplier engagement strategy to optimize engagement by supplier category. Our annual supplier sustainability assessment is distributed to the suppliers that conduct the most business with NYPA, including all Tier 1 suppliers and our top Tier 2 suppliers, as measured by spend.

NYPA participates in industry groups that support the development of sustainable procurement strategies, including the Electric Utility Industry Sustainable Supply Chain Alliance (EUISSCA), the Natural Gas Supply Collaborative and the EPRI SF₆ Supplemental Project.

Maximizing Supply Chain Diversity

We are invested in working with New York State suppliers and ensuring diversity across our supply chain.

To build capacity and access to diverse firms, we host supplier diversity events and deliver education and training. We also participate in an average of nine supplier outreach events per year, all hosted virtually in 2020. We advertise procurements state-wide to ensure locally based diverse suppliers have access to bidding opportunities. Additionally, we use New York State's discretionary spend guidelines, when applicable, to engage locally based diverse suppliers and promote economic inclusion. Our goal to build capacity and access to diverse firms is reinforced by the new Ten-Point Diversity, Equity and Inclusion Plan.

This local supply chain focus resulted in 53% of NYPA's procurement budget, and 90% of Canals' procurement budget, spent on New York State suppliers in 2020.

WE EXCEEDED OUR SUPPLIER DIVERSITY GOALS IN 2020

24%

of NYPA and Canals' total identified MWBE spend with New York State certified suppliers

63%

of NYPA and Canals' total identified SDVOB spend with New York State certified suppliers

NYPA and Canals' total identified MWBE spend and total identified SDVOB spend are based upon established New York State criteria, including but not limited to, services to be performed, availability of certified suppliers and geographic location. In 2020, our MWBE and SDVOB targets were 22% and 6%, respectively.

CASE STUDY

DIVERSE SUPPLIER SUPPORT IN TIMES OF NEED

The COVID-19 pandemic severely impacted the global supply chain, particularly in relation to PPE. Our diverse and small business supplier network jumped into action and were instrumental in procuring the PPE and supplies necessary for our employees to feel protected from the coronavirus.

These suppliers delivered food early in the pandemic when other businesses were closed, printed COVID-19 signage for all NYPA and Canals sites when awareness messaging was needed the most, and supplied PPE kits when wholesale suppliers could not support our needs. Diverse suppliers also assisted with daily health screenings and COVID-19 testing by helping to identify available nurses in remote locations during the pandemic.

In a time of immense need that required immediate action, our supply chain showed up and helped us navigate a swift COVID-19 response.





NY Power
Authority

Canal
Corporation

Appendix

Performance Data

GRI 102-08: Number of Employees

	2020		
	Female	Male	Total
NYPA			
Total number of employees	478	1,495	1,973
Permanent employees	470	1,456	1,926
Provisional employees	7	37	44
Temporary employees	1	2	3
Full-time employees	465	1,464	1,929
Part-time employees	13	31	44
Canals			
Total number of employees	61	402	463
Permanent employees	56	360	416
Temporary employees	5	42	47
Full-time employees	58	401	459
Part-time employees	3	1	4

GRI 405-1: Diversity of Governance Bodies

Categories	Unit	2020	
		Female	Male
Under 30 years	%	0.00	0.00
30-50 years	%	20.00	6.67
Over 50 years	%	6.67	66.66
Total	%	26.67	73.33

Data reflects Board of Trustees and EMC composition as of December 31, 2020.

GRI 405-1: Diversity of Employees

Categories	Unit	2020		
		Female	Male	Total
NYPA				
Under 30 years	%	2.33	5.27	7.60
30-50 years	%	12.27	40.65	52.91
Over 50 years	%	9.63	29.85	39.48
Canals				
Under 30 years	%	1.30	10.58	11.88
30-50 years	%	4.97	35.85	40.82
Over 50 years	%	6.91	40.39	47.30

An independent analysis of NYPA and Canals' diversity data is currently underway. Data for additional diversity categories will be disclosed once the analysis is completed.

NYPA and Canals' MWBE and SDVOB Spend

	Unit	2018	2019	2020
Percent of Total Identified MWBE Spend with New York State Certified Suppliers	%	18.22	22.94	24.43
Percent of Total Identified SDVOB Spend with New York State Certified Suppliers	%	38.26	70.41	62.60

NYPA and Canals' total identified MWBE spend and total identified SDVOB spend are based upon established New York State criteria, including but not limited to, services to be performed, availability of certified suppliers and geographic location.

Performance Data

SASB IF0101-12: Health & Safety Performance: NYPA

Categories	Unit	2018	2019	2020
Employee DART Rate	Rate	0.97	0.76	0.39
Total Employee Recordable Injury Rate	Rate	1.73	1.22	0.49
Total Employee Fatality Rate	Rate	0	0	0
Near Misses	Rate	428	439	466

SASB IF0101-12: Health & Safety Performance: Canals

From 2012-2017, the Canals DART rate was 5.9. This rate improved in 2017, its first year under NYPA, to 4.95. Recognizing the need to further institutionalize a culture of safety and to support reaching the Canals DART target of 3.5, a Safety Improvement Committee was established between NYPA's environmental health and safety business unit and Canals' leadership team—fostering ongoing, transparent dialogue around safety improvement measures for the future.

Categories	Unit	2018	2019	2020
Employee DART Rate	Rate	3.44	4.05	5.07
Total Employee Recordable Injury Rate	Rate	5.40	5.40	6.19
Total Employee Fatality Rate	Rate	0	0	0

GRI 302-1: Energy Consumption within Organization

Categories	Unit	2018	2019	2020
Electricity	MWh	663,124.99	706,658.83	690,319.19

GRI 303-1 and SASB IF0101-05: Water Management and Withdrawal by Source

Categories	Unit	2018	2019	2020
Total volume of water withdrawn	Kiloliters	199.96 billion	208.69 billion	211.63 billion
Water withdrawn from surface water	Kiloliters	199.96 billion	208.69 billion	211.63 billion
Water withdrawn from ground water	Kiloliters	1,054,097	679,822	884,334
Water withdrawn in regions with high or extremely high baseline water stress	%	0.00052715	0.00032575	0.000417862
Total volume of water consumed	Kiloliters	6,973,633	6,740,837	6,863,514
Water consumed in regions with high or extremely high baseline water stress	%	9.18	6.05	7.73

Performance Data

GRI 303-3: Water Recycled and Reused

Categories	Unit	2018	2019	2020
Total volume of water recycled and reused by NYPA	Kiloliters	199.96 billion	208.69 billion	211.63 billion
Total volume of water recycled and reused as a percentage of the total water withdrawal	%	99.99	99.99	99.99

GRI 306-2: Hazardous Waste: NYPA

Categories	Unit	2018	2019	2020
Total weight of hazardous waste	Pounds	184,954	15,227	11,100
Recycling	Pounds	243	77	2,094
Incineration (mass burn)	Pounds	11,282	14,556	9,006
Landfill	Pounds	173,429	594	0

GRI 306-2 Hazardous Waste: Canals

Categories	Unit	2020
Total weight of hazardous waste	Pounds	17,460
Recovery, including energy recovery	Pounds	300
Landfill	Pounds	17,160

GRI 305-1, 305-4: GHG Emissions

Categories	Unit	2018	2019*	2020*	Gases
Total Scope 1 Emissions	Metric tons CO ₂ e (MT CO ₂ e)	1,425,325	1,369,772	1,539,119	CO ₂ , CH ₄ , N ₂ O, SF ₆
Total power generated	Megawatt hours (MWh)	27,307,377	27,426,477	28,611,838	
Emissions intensity	MT CO ₂ e/MWh	0.0522	0.0499	0.0538	CO ₂ , CH ₄ , N ₂ O, SF ₆

GRI 305-07 and SASB IF0101-04: Significant Air Emissions

Data refers to SENY reportable emissions only. For these disclosures, emission factors from 40 Code of Federal Regulations (CFR) Part 75 (for NO_x, SO_x) and Environmental Protection Agency (EPA) AP-42 (for other significant air pollutants) were used.

Categories	Unit	2018	2019	2020
NOX	Kilograms	186,857	154,388	161,038
SOX	Kilograms	7,538	10,923	9,382
Volatile organic compounds (VOC)	Kilograms	11,386	8,642	14,163
Hazardous air pollutants (HAP)	Kilograms	11,719	11,425	12,752
Particulate matter (PM)	Kilograms	79,595	75,347	67,137

*2019 and 2020 emissions data was pending verification from The Climate Registry at the time of this report's publication.

GRI Index

This is NYPA and Canals' first year referencing the *Global Reporting Initiative* (GRI) Standards, in alignment with the GRI Standards Core option. Data included in this disclosure may differ from data otherwise included in the report or other disclosures in order to conform to GRI reporting requirements.

GRI Standard	GRI Disclosure	Location and Notes
GRI 102: General Disclosures 2016		
102-01	Name of the organization	About Us
102-02	Activities, brands, products and services	About Us
102-03	Location of headquarters	About Us
102-04	Location of operations	About Us
102-05	Ownership and legal form	About Us
102-06	Markets served	About Us 2020 Financial Report, p. 5 2019 Financial Report, p. 5
102-07	Scale of the organization	
102-08	Information on employees and other workers	About Us Performance Data We use 2020 data as our baseline and will disclose year-by-year comparisons in future years. As projects warrant, non-employees (consultants and contractors) are hired to augment design work, inspection and construction activities.
102-09	Supply chain	Supply Chain & Procurement Practices NYPA and Canals secure suppliers to support critical operations, maintenance and capital projects, as well as bulk electric system, power plant, canal system, railway and energy efficiency projects. Over 7,000 contractors, consultants and equipment suppliers, among others, are engaged to support both NYPA and Canals. The estimated monetary value of payments made to suppliers is \$743,899,980 for NYPA and \$87,499,310 for Canals, based upon 2019 annual numbers.
102-10	Significant changes to the organization and its supply chain	Supply Chain & Procurement Practices
102-11	Precautionary Principle or approach	We do not formally apply this principle, but it does inform our thinking about sustainability and risk management.
102-12	External initiatives	These are referenced throughout the report.

GRI Standard	GRI Disclosure	Location and Notes
102-13	Membership of associations	We are active members of the American Public Power Association (APPA), Electric Power Research Institute (EPRI) and Large Public Power Council (LPPC). Other memberships and partnerships are referenced throughout the report.
102-14	Statement from senior decision-maker	<u>Leadership Statement</u>
102-16	Values, principles, standards, and norms of behavior	<u>About Us</u>
102-18	Governance structure	<u>Sustainability Governance</u>
102-40	List of stakeholder groups	<u>Stakeholder Engagement</u>
102-41	Collective bargaining agreements	Percentage of employees covered by collective bargaining agreements: NYPA: 2018: 31%; 2019: 30%; 2020: 29%. Canals: 2018: 91.9%; 2019: 91.3%; 2020: 92.9%
102-42	Identifying and selecting stakeholders	<u>Stakeholder Engagement</u> <u>Community Engagement</u> <u>Employee Development</u> <u>Supply Chain & Procurement Practices</u>
102-43	Approach to stakeholder engagement	<u>Stakeholder Engagement</u> <u>Community Engagement</u> <u>Employee Development</u> <u>Supply Chain & Procurement Practices</u>
102-44	Key topics and concerns raised Stakeholder Engagement	<u>Stakeholder Engagement</u> <u>Community Engagement</u> <u>Employee Development</u> <u>Supply Chain & Procurement Practices</u>
102-45	Entities included in the consolidated financial statements	<u>2020 Financial Report, p. 6</u>
102-46	Defining report content and topic Boundaries	NYPA's Sustainability Report is developed based on the requirements of the GRI principles for defining report content, including sustainability context, materiality, completeness and stakeholder inclusiveness.
102-47	List of material topics	<u>ESG Focus Areas</u>

GRI Standard	GRI Disclosure	Location and Notes
102-48	Restatements of information	<u>About This Report</u>
102-49	Changes in reporting	<u>About This Report</u>
102-50	Reporting period	01-01-2020 to 12-31-2020
102-51	Date of most recent report	This is NYPA's first Sustainability Report developed in alignment with the GRI Standard.
102-52	Reporting cycle	Annual
102-53	Contact point for questions regarding the report	<u>About This Report</u>
102-54	Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards: Core option.
102-55	GRI content index	<u>GRI Index</u>
102-56	External assurance	This report did not undergo external assurance.
GRI 201: Economic Performance 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>2020 Financial Report, p. 5</u> <u>Climate Change & GHG Emissions</u> <u>Economic Development</u>
103-3	Evaluation of the management approach	<u>2020 Financial Report, p. 5</u> <u>Climate Change & GHG Emissions</u> <u>Economic Development</u> <u>Sustainability Governance</u>
201-2	Financial implications and other risks and opportunities due to climate change	<u>Climate Change & GHG Emissions</u> <u>Enterprise Risk & Resilience</u>
GRI 203: Indirect Economic Impacts 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Climate Change & GHG Emissions</u> <u>Community Engagement</u> <u>Economic Development</u>

GRI Standard	GRI Disclosure	Location and Notes
103-3	Evaluation of the management approach	<u>Climate Change & GHG Emissions</u> <u>Community Engagement</u> <u>Economic Development</u> <u>Sustainability Governance</u>
203-1	Infrastructure investments and services supported	<p>We make significant infrastructure investments through the development of customer-sited solar and storage, implementation of energy efficiency projects and installation of state-wide electric vehicle charging infrastructure. These efforts positively impact our stakeholders, community and climate through the avoidance of GHG emissions and other air emissions, creation of green jobs, investments in community development and energy savings.</p> <p>NYPA's <i>Reimagine the Canals</i> initiative is investing \$300 million in the New York State Canal System, and will yield positive impacts for communities and local economies by increasing local farmers' high-value crop yields, promoting outdoor recreation and fishing, encouraging canalside living and expanding regional tourism.</p> <p>All projects under <i>Reimagine the Canals</i> are funded by our capital and operating funds, and we seek to collaborate with relevant public agencies, philanthropies and private sector interests to complement that funding through outside sources. We have established regional councils and a technical advisory council to serve as channels for communication with stakeholder groups about canal operations, economic development and resilience—thus ensuring local support and engagement.</p> <p>For more information see <u>Access & Affordability</u>, <u>Community Engagement</u> and <u>Economic Development</u>.</p>
GRI 204: Procurement Practices 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its component	<u>Supply Chain & Procurement Practices</u>
103-3	Evaluation of the management approach	<u>Supply Chain & Procurement Practices</u>
204-1	Proportion of spending on local suppliers	<p>Local is defined as New York State. Our significant locations of operation are all within New York State.</p> <p>Proportion of spending on local suppliers as percentage of total procurement budget:</p> <p>NYPA: 2018: 66.0%; 2019: 66.6%; 2020: 53.4%</p> <p>Canals: 2018: 77.2%; 2019: 88.6%; 2020: 90.3%</p>

GRI Standard	GRI Disclosure	Location and Notes
GRI 302: Energy 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Energy Efficiency & Electrification</u> <u>Energy Reliability</u> <u>Renewable Energy & Energy Storage</u>
103-3	Evaluation of the management approach	<u>Sustainability Governance</u> <u>Energy Efficiency & Electrification</u> <u>Energy Reliability</u> <u>Renewable Energy & Energy Storage</u>
302-1	Energy consumption within the organization	<u>Performance Data</u>
302-4	Reduction of energy consumption	Cumulative figures conserved as part of BuildSmart program. 2018: 2.6 TBtu 2019: 3.5 TBtu 2020: 4.0 TBtu
GRI 303: Water 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Environmental Stewardship</u>
103-3	Evaluation of the management approach	<u>Environmental Stewardship</u> <u>Sustainability Governance</u>
303-1	Water withdrawal by source	<u>Performance Data</u> Rainwater collected and stored is not tracked. We do not handle wastewater from other organizations.
303-3	Water recycled and reused	<u>Performance Data</u> Percentages are calculated based on collective water withdrawal and consumption data inputs.

GRI Standard	GRI Disclosure	Location and Notes
GRI 304: Biodiversity 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Environmental Stewardship</u>
103-3	Evaluation of the management approach	<u>Environmental Stewardship</u> <u>Sustainability Governance</u>
304-2	Significant impacts of activities, products and services on biodiversity	<p>During construction projects, NYPA uses best management practices to limit environmental impacts, including minimizing the transport of invasive species during large-scale transmission projects and ROW maintenance activities.</p> <p>No significant impacts on biodiversity, pollution-related incidents, introduction of invasive species, reduction in species or habitat conversion have been recorded or observed during the reporting period.</p> <p>See <u>Environmental Stewardship</u> for more information about biodiversity programs.</p>
304-3	Habitats protected or restored	<u>Environmental Stewardship</u>
GRI 305: Emissions 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Climate Change & GHG Emissions</u>
103-3	Evaluation of the management approach	<u>Climate Change & GHG Emissions</u> <u>Enterprise Risk & Resilience</u> <u>Sustainability Governance</u>
305-1	Direct (Scope 1) GHG Emissions	<u>Climate Change & GHG Emissions</u> Scope 1 GHG emissions calculations are completed using emission factors from 40 Code of Federal Regulations (CFR) Part 98.
305-2	Energy indirect (Scope 2) GHG emissions	NYPA does not currently track Scope 2 emissions. We plan to disclose Scope 2 emissions and set a baseline in the future.
305-3	Other indirect (Scope 3) GHG emissions	NYPA does not currently track Scope 3 emissions. We plan to disclose Scope 3 emissions and set a baseline in the future.

GRI Standard	GRI Disclosure	Location and Notes
305-4	GHG emissions intensity	<u>Performance Data</u>
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	<u>Performance Data</u>
GRI 306: Waste 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Environmental Stewardship</u>
103-3	Evaluation of the management approach	<u>Environmental Stewardship</u>
306-2	Waste by type and disposal method	<u>Performance Data</u>
306-3	Significant spills	Zero spills financially material in 2020.
GRI 307: Environmental Compliance 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Environmental Stewardship</u> <u>Regulatory Management & Compliance</u>
103-3	Evaluation of the management approach	<u>Environmental Stewardship</u> <u>Regulatory Management & Compliance</u>
307-1	Non-compliance with environmental laws and regulations	NYPA was in compliance with environmental laws and/or regulations in 2020.
GRI 308: Supplier Environmental Assessment 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Supply Chain & Procurement Practices</u>
103-3	Evaluation of the management approach	<u>Supply Chain & Procurement Practices</u>
308-1	New suppliers that were screened using environmental criteria	<u>Supply Chain & Procurement Practices</u>
308-2	Negative environmental impacts in the supply chain and actions taken	<u>Supply Chain & Procurement Practices</u>

GRI Standard	GRI Disclosure	Location and Notes
GRI 401: Employment 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Employee Development</u>
103-3	Evaluation of the management approach	<u>Employee Development</u>
401-2	Benefits to full-time employees that are not provided to temporary or part-time employees	Besides best-in-class health, welfare, wellness and time off benefits, NYPA and Canals offer access to a pension plan.
GRI 403: Occupational Health and Safety 2018		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
130-2	The management approach and its components	<u>Health & Safety</u>
103-3	Evaluation of the management approach	<u>Health & Safety</u>
403-6	Promotion of worker health	<u>Health & Safety</u>
GRI 404: Training and Education 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Employee Development</u> <u>Diversity, Equity & Inclusion</u>
103-3	Evaluation of the management approach	<u>Employee Development</u> <u>Diversity, Equity & Inclusion</u>
404-1	Average hours of training per year per employee	NYPA: 2018: 42.41 hours; 2019: 46.32 hours; 2020: 25.45 hours. Canals: 2018: 20.6 hours; 2019: 25.6 hours; 2020: 8.7 hours. In 2020, optional employee training paused briefly as the organization and training partners adapted programs to the virtual environment due to COVID-19.
404-3	Percentage of employees receiving regular performance and career development reviews	The percentage of full-time NYPA employees receiving regular performance reviews was 95% in 2018, 93% in 2019 and 91% in 2020. Canals currently does not have a formal performance review process but is in the process of developing a comprehensive plan. Data specified per gender will be collected in future reporting years.

GRI Standard	GRI Disclosure	Location and Notes
GRI 405: Diversity and Equal Opportunity 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Diversity, Equity & Inclusion</u>
103-3	Evaluation of the management approach	<u>Diversity, Equity & Inclusion</u>
401-5	Diversity of governance bodies and employees	<p>An independent analysis of NYPA and Canals' diversity data is currently underway. Data for additional diversity categories will be disclosed once the analysis is completed.</p> <p><u>Diversity, Equity & Inclusion</u></p> <p><u>Performance Data</u></p>
GRI 406: Non-discrimination 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Diversity, Equity & Inclusion</u>
103-3	Evaluation of the management approach	<u>Diversity, Equity & Inclusion</u>
406-1	Incidents of discrimination and corrective actions taken	<p>We do not report number of incidents of discrimination in this report because this data is confidential.</p> <p>The Office of Civil Rights & Inclusion houses our Equal Employment Opportunity (EEO) safeguards and aims to hold all NYPA and Canals employees accountable and discourage hostile workplace treatment and discrimination. The EEO policies provide clear guidelines for the rights and responsibilities of employee channels for reporting incidents of discrimination, as well as the investigation of such complaints as mandated by New York State. We have an open-door policy for in-person meetings and can be contacted directly by phone or email. Our Labor Relations and Human Resources team is available to support employees with workplace disputes as well.</p> <p>There is a third-party, confidential and toll free hot-line available to employees for complaints and comments. The represented workforce may also pursue workplace issues via the grievance process in accordance with their respective collective bargaining agreements.</p>
GRI 413: Local Communities 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Community Engagement</u> <u>Economic Development</u>

GRI Standard	GRI Disclosure	Location and Notes
103-3	Evaluation of the management approach	<u>Community Engagement</u> <u>Economic Development</u>
413-1	Operations with local community engagement, impact assessments, and development programs	We conduct regular community engagements and have development programs in place in the communities in which we operate. We conduct impact assessments when required by law or requested by customers. See <u>Community Engagement</u> for more information.
GRI 418: Customer Privacy 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Community Engagement</u> <u>Cyber & Physical Security</u>
103-3	Evaluation of the management approach	<u>Community Engagement</u> <u>Cyber & Physical Security</u>
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	We do not have any reported customer privacy breaches for the reported time frame of 2018 to 2020.
GRI 419: Socio-economic Compliance 2016		
103-1	Explanation of the material topic and its Boundary	<u>ESG Focus Areas</u>
103-2	The management approach and its components	<u>Regulatory Management & Compliance</u>
103-3	Evaluation of the management approach	<u>Regulatory Management & Compliance</u>
419-1	Non-compliance with laws and regulations in the social and economic area	<p>We have not identified any incidents of non-compliance with laws and/or regulations. We self-report instances of non-compliance with NPCC: 2018: 1; 2019: 6; 2020: 7.</p> <p>We have developed mitigation plans in timely fashion in agreement with NPCC to prevent recurrence.</p>

SASB Index: Electric Utilities Standard

Topic	Accounting Metric	Category	Unit of Measure	Code	Response
Greenhouse Gas Emissions & Energy Resource Planning	(1) Gross global Scope 1 emissions, (2) percentage covered under emissions-limiting regulations, and (3) percentage covered under emissions-reporting regulations	Quantitative	Short tons (t) CO ₂ -e, Percentage (%)	IF0101-01	(1) 2020: See Climate Change & GHG Emissions . (2) and (3): New York participates in the <i>Regional Greenhouse Gas Initiative</i> (RGGI), the first mandatory market-based program in the United States to reduce greenhouse gas emissions. All NYPA's Southeast New York generating facilities are subject to RGGI.
	Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emission-reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	IF0101-02	Climate Change & GHG Emissions
	(1) Number of customers served in markets subject to renewable portfolio standards (RPS) and (2) percentage fulfillment of RPS target by market	Quantitative	Number, Percentage (%)	IF0101-03	Not applicable. New York State does not have a Renewable Portfolio Standard. New York does have a Clean Energy Standard issued by the Public Service Commission, but NYPA is not subject to the jurisdiction of the Public Service Commission.
Air Quality	Air emissions of the following pollutants: NO _x (excluding N ₂ O), SO _x , particulate matter (PM ₁₀), Pb, and Hg; percentage of each in or near areas of dense population	Quantitative	Metric tons (t), Percentage (%)	IF0101-04	Air emissions included in Performance Data . Percentage of each in or near areas of dense population: 2018: 100%; 2019: 100%; 2020: 100%.
Water Management	(1) Total water withdrawn and (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Cubic Meters (m ³), Percentage (%)	IF0101-05	Performance Data

Topic	Accounting Metric	Category	Unit of Measure	Code	Response
	Number of incidents of non-compliance with water quality and/or quantity permits, standards, and regulations	Quantitative	Number	IF0101-06	<p>In 2020, NYPA had 9 reportable events for parameters monitored and reported under its State Pollutant Discharge Elimination System (SPDES) permits for its operating facilities.</p> <p>Canals reported two instances of non-compliance with the SPDES General for Stormwater Discharges from Construction Activity in 2020. No fines were issued.</p>
	Discussion of water management risks and description of strategies and practices to mitigate those risks	Discussion and Analysis	n/a	IF0101-07	<p>We employ best management practices for management of process and contact stormwater containment, effluent treatment and monitoring at operating facilities. Stormwater management at operating facilities and construction projects also follows best management practices and standards for erosion control, inspection and monitoring. Strategies focus on protection and conservation, in particular for notable resource areas such as sole source aquifers and New York City's drinking watershed.</p> <p>See Environmental Stewardship for further information.</p>
Coal Ash Management	Amount of coal combustion residuals (CCR) generated, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	IF0101-08	We do not own or have specified coal generation contracts.

Topic	Accounting Metric	Category	Unit of Measure	Code	Response
	Total number of coal combustion residual (CCR) impoundments and number by EPA Hazard Potential Classification, broken down by EPA structural integrity assessment	Quantitative	Number	IF0101-09	We do not own or have specified coal generation contracts.
Community Impacts of Project Siting	Number of projects requiring environmental or social modification, percentage of modifications resulting from formal public interventions or protests	Quantitative	Number, Percentage (%)	IF0101-10	Information is confidential and cannot be disclosed without customer approval.
	Discussion of community engagement processes to identify and mitigate concerns regarding project environmental and community impacts	Discussion and Analysis	n/a	IF0101-11	Information is confidential and cannot be disclosed without customer approval.
Workforce Health & Safety	(1) Total recordable injury rate (TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR)	Quantitative	Rate	IF0101-12	<p>NYPA: (1) 0.49 (2) 0.0 (3) 466 – This figure reflects number of near miss incidents, instead of rate</p> <p>Canals: (1) 6.2 (2) 0.0 (3) Not available</p> <p>See Health & Safety and Performance Data for further information.</p>

Topic	Accounting Metric	Category	Unit of Measure	Code	Response
End-Use Efficiency & Demand	Percentage of electric load served by smart grid technology	Quantitative	Percentage (%) by Megawatt Hours (MWh)	IF0101-13	Data is not available. As a generation and transmission company, NYPA installs smart grid technology to support integration of distributed generation and increase generation and transmission efficiency across the transmission system—not tied to specific loads.
	Customer electricity savings from efficiency measures by market	Quantitative	Megawatt-Hours (MWh)	IF0101-14	2018: 103,015 MWh 2019: 82,071 MWh 2020: 27,110 MWh Annual MWh savings depend on how many projects are completed that year. There has been a significant reduction in savings in 2020 due to paused construction because of COVID-19.
Nuclear Safety & Emergency Management	Total number of nuclear power units, broken down by Nuclear Regulatory Commission (NRC) Action Matrix Column	Quantitative	Number	IF0101-15	Not applicable, we do not own or operate nuclear power generation.
	Discussion of efforts to manage nuclear safety and emergency preparedness	Discussion and Analysis	n/a	IF0101-16	NYPA and Canals do not own or operate nuclear power generation. NYPA does have an Emergency Management program in place that is applicable to our hydro and fossil generating units. Our security and emergency management programs include FERC Dam Safety requirements.
Grid Resiliency	Number of incidents of non-compliance with North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection standards	Quantitative	Number	IF0101-17	Due to FERC restrictions, this information cannot be released.
	(1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI), and (3) Customer Average Interruption Duration Index (CAIDI), inclusive of major event days	Quantitative	Minutes, Number	IF0101-18	Not applicable, we do not provide distribution services.

Topic	Accounting Metric	Category	Unit of Measure	Code	Response
Management of the Legal & Regulatory Environment	Discussion of policies and processes to identify and manage potential ethical violations resulting from interactions with utility commissions	Discussion and Analysis	n/a	IF0101-19	Our Code of Conduct contains the standards of behavior expected of all Trustees, officers and employees as required by the NYS Public Officers Law, including conflicts of interests and the provision of unwarranted privileges. <u>NYPA Code of Conduct.</u> <u>Canals Code of Conduct.</u>
	Amount of legal and regulatory fines and settlements associated with allegations of violations resulting from interactions with utility commission	Quantitative	U.S. Dollars (\$)	IF0101-200	Zero. As part of internal compliance monitoring program, self-identified non-compliance instances are logged and reported with NPCC/NERC with zero-dollar penalty.
	Discussion of positions on the regulatory and political environment related to environmental and social factors and description of efforts to manage risks and opportunities presented	Discussion and Analysis	n/a	IF0101-21	We monitor state and federal regulatory proceedings for changes in relevant policies and programs, and identify and act on opportunities to advocate for policies and programs that align with and support our sustainability goals. See also <u>Regulatory Management & Compliance</u> and <u>Community Engagement</u> .

Activity Metric	Category	Unit of Measure	Code	Response
Number of (1) residential and (2) commercial customers served	Quantitative	Number	IF0101-A	NYPA has over 1,400 customers, including governmental agencies, municipal/rural electric cooperatives, businesses, neighboring states and investor-owned utilities. NYPA does not have residential customers.
Length of transmission and distribution lines	Quantitative	Kilometers (km)	IF0101-B	1455.7 miles
Total electricity generated, percentage by major energy source, percentage in regulated markets	Quantitative	Megawatt-hours (MWh), Percentage (%)	IF0101-C	Total: 28,611,838 MWh Hydropower: 88% Natural gas: 12%

Glossary

A

AABE—American Association of Blacks in Energy

B

BIPOC—Black, Indigenous and People of Color

C

Canals—New York State Canal Corporation

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 Rate

DEI—Diversity, Equity and Inclusion

E

EDCAP—Economic Development Customer Assistance Program

EDPAB—Economic Development Power Allocation Board

EGRC—Enterprise Governance, Risk and Compliance System

EH&S—Environment, Health and Safety

EJ—Environmental Justice

EMC—Executive Management Committee

EPRI—Electric Power Research Institute

ERGs—Employee Resource Groups

ESG—Environmental, Social, Governance

EUI—Energy Use Intensity

EUISCA—Electric Utility Industry Sustainable Supply Chain Alliance

EV—Electric Vehicle

F

FERC—Federal Energy Regulatory Commission

G

GHG—Greenhouse Gas

GRI—Global Reporting Initiative

G&T—Generation and Transmission

H

HVAC—heating, ventilation and air conditioning

H&S—Health and Safety

I

IPCC—Inter-governmental Panel on Climate Change

iSOC—Integrated Smart Operations Center

IVM—Integrated Vegetation Management

K

KW—Kilowatt



L

LED—Light-emitting Diode

LMI—Low- to Moderate-Income

M

MW—Megawatt

MWBE—Minority and Women-owned Business Enterprises

MWh—Megawatt-hour

N

NERC—North American Electric Reliability Corporation

NIA—Niagara Power Project

NNY—Northern New York

NPCC—Northeast Power Coordinating Council, Inc.

NYISO—New York Independent System Operator

NYPA—New York Power Authority

NYSDEC—New York State Department of Environmental Conservation

NYSDEL—New York State Department of Labor

NYSERDA—New York State Energy Research and Development Authority

NYTO—New York State Transmission Owners

O

OCRI—Office of Civil Rights & Inclusion

OSHA—Occupational Safety and Health Administration

P

PESH—Public Employee Safety and Health Bureau

PJM—PJM Inter-connection LLC

PPE—Personal Protective Equipment

P-TECH—Pathways in Technology Early College High School

R

REC—Renewable Energy Credits

RGGI—Regional Greenhouse Gas Initiatives

ROW—Rights of Way

RSC—Reliability Standards Compliance

S

SAC—Sustainability Advisory Council

SASB—Sustainability Accounting Standards Board

SDVOB—Service-disabled Veteran Owned Businesses

SENY—Southeast New York

SF₆—Sulfur hexafluoride

STEM—Science, Technology, Engineering and Mathematics

STL—St. Lawrence-FDR Power Plant Project

T

TBtu—Trillion British Thermal Units

TCFD—Task Force on Climate-related Financial Disclosures

TCR—The Climate Registry

TWh—Terawatt-hour

U

UN SDG—United Nations Sustainable Development Goals

W

WNY—Western New York

Forward-Looking Statements

Statements contained in this report, including the message from NYPA's president and CEO, about future performance, plans, expectations, objectives and forecasts, and other statements that are not purely historical, are forward-looking statements. These forward-looking statements reflect our current expectations; however, such statements involve risks and uncertainties. Actual results could differ materially from current expectations. These forward-looking statements represent our expectations only as of the date of this report, and NYPA assumes no duty to update them to reflect new information, events or circumstances.

Some of the factors that could cause actual results to differ materially are discussed in NYPA's Financial Report for the year ended December 31, 2020 and other reports filed with New York State, available [here](#). These documents also provide additional information on historical and other factual data contained in this report.



© 2021 New York Power Authority

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