



**NY Power
Authority**

**Canal
Corporation**

**MINUTES OF THE JOINT SPECIAL MEETING
OF THE
POWER AUTHORITY OF THE STATE OF NEW YORK AND
NEW YORK STATE CANAL CORPORATION**

November 12, 2020

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Minutes of the Special Joint Meeting of the New York Power Authority's Trustees and Canal Corporation's Board of Directors held via video conference at approximately 10:00 a.m.

Members of the Board present were:

John R. Koelmel, Chairman
Eugene L. Nicandri, Vice Chairman
Tracy McKibben
Michael A.L. Balboni
Dennis T. Trainor

Anthony J. Picente, Jr. – Excused

Gil Quiniones	President and Chief Executive Officer
Justin Driscoll	Executive Vice President and General Counsel
Adam Barsky	Executive Vice President and Chief Financial Officer
Joseph Kessler	Executive Vice President and Chief Operating Officer
Kristine Pizzo	Executive Vice President and Chief Human Resource & Administrative Officer
Sarah Salati	Executive Vice President and Chief Commercial Officer
Robert Piascik	Senior Vice President & Chief Information Officer
Kimberly Harriman	Senior Vice President – Public & Regulatory Affairs
Keith Hayes	Senior Vice President – Clean Energy Solutions
Yves Noel	Senior Vice President – Strategy & Corporate Development
Karen Delince	Vice President and Corporate Secretary
Janis Archer	Vice President – Enterprise Excellence
Girish Behal	Vice President – Project & Business Development
Emily Bolduc	Vice President – New York Energy Manager
Steven Kalashian	Vice President – Human Resources & Organizational Development
Jenny Liu	Vice President – Energy Resource Management
Fabio Mantovani	Vice President – Head of e-Mobility
Saul Rojas	Vice President – Enterprise Resilience
Diane Levin	Vice President – Marketing & Product Development
Daniella Piper	Vice President – Digital Transformation Office and Chief of Staff
Adrienne Lotto	Senior Director – Energy Security & Resilience Programs
Brian Stanton	Senior Director – Origination & Structuring
Maribel Cruz	Director – Projects
Christopher Fry	Director – Business Development
Michael Mulhall	Corporate Strategy Director
Ram Narayan	Senior Strategy Analyst
Rebecca Hughes	Senior Manager – e-Mobility Marketing & Customer Experience
Evan Kolkos	Senior Manager – Customer Business Development
Mary Cahill	Manager – Executive Office
Joseph Glazer	Strategy Analyst
Summer Shaw	Senior Policy Advisor
Lorna Johnson	Senior Associate Corporate Secretary
Sheila Quatrocci	Associate Corporate Secretary
Michele Stockwell	Project Coordinator – Executive Office
Rory Clune	Partner – McKinsey & Company
Ksenia Kaladiouk	Associate Partner – McKinsey & Company
Tai Humayun	McKinsey & Company
Randy Krues	President – Customer Care Network, Inc.

Chairman Koelmel presided over the meeting. Corporate Secretary Delince kept the Minutes.

Introduction

Chairman Koelmel welcomed the Trustees/Directors and NYPA and Canal staff members who were present at this second special strategic meeting for the joint boards of the New York Power Authority and Canals system. He said that the meeting had been duly noticed as required by the Open Meetings Law and called the meeting to order pursuant to the Authority's Bylaws, Article III, Section 3.

1. **Adoption of the November 12, 2020 Proposed Meeting Agenda**

On motion made by Trustee Trainor and seconded by Trustee Balboni, the members adopted the meeting Agenda.

2. **Motion to Conduct an Executive Session**

“Mr. Chairman, I move that the NYPA and Canal Boards conduct an Executive Session to discuss the financial and credit history of a particular corporation and matters regarding public safety and security.” On motion made by Trustee Balboni and seconded by Trustee Trainor, the members held an executive session.

3. **Motion to Resume Meeting in Open Session**

“Mr. Chairman, I move to resume the meeting in Open Session.” On motion made by Trustee Trainor and seconded by Trustee McKibben, the meeting resumed in Open Session.

Chairman Koelmel said that no votes were taken during the Executive Session.

4. DISCUSSION AGENDA:

a. Vision 2030 Strategy Development

Chairman Koelmel said that this special meeting is to continue the dialogue on the Authority's Strategic Plan and invited President Gil Quiniones to introduce the next phase of the discussions on the Authority's VISION2030 Strategy Development Plan to the Board.

President Quiniones said that this is the second of the Authority's VISION2030 Strategic Plan retreat with the NYPA/Canal Boards. He said today's discussion will cover four topics, two Strategic Initiatives and two Foundational Pillars (Exhibit "4a-A"). Of the two strategic initiatives, he will provide a summary on the Authority's plans regarding Decarbonizing its Gas Power Plants in New York City and Long Island, and Ms. Sarah Salati and her team will discuss the Authority's customers and the Authority plans to put its customers at the center of this energy transition in New York State. The two Foundational Pillars will be presented by Ms. Kristine Pizzo who will discuss Resource Alignment, which includes the Process Excellence, Knowledge Management, and Workforce Development initiatives, and Mr. Saul Rojas will discuss NYPA's Enterprise Resilience Program.

i. **Decarbonizing Gas Power Plants**

President Quiniones discussed the Authority's strategic initiative as it relates to its Natural Gas Power Plants in New York City and Long Island. He said that to be a trusted partner with its customers, NYPA needs to lean-in and be a leader in decarbonizing its own assets, using those assets as test-beds for the innovation that is needed to decarbonize its natural gas power plants.

On October 13, 2020, NYPA announced a unique agreement with Environmental Justice group, the PEAK Coalition, based in New York City, to work with the Authority and explore all options on how NYPA can transition its natural gas fired "Peaker" plants in New York City and Long Island to utilize clean energy technologies such as low to zero carbon emission resources and technologies. To that end, NYPA plans to work with the PEAK Coalition, supporting them and their consultants in that process, exploring alternative clean energy replacement options that may be developed for the transitioning of those assets.

NYPA values the partnership with the PEAK Coalition and thanks the Coalition and their members for their willingness to work with the Authority in this fact-based analysis to be at the leading edge, exploring alternative clean energy replacement options. NYPA is aware that this will not be an easy task as the Authority will need to ensure that the reliability and resiliency requirements of New York City and Long Island are not compromised as the NYPA goes through this transition.

ii. **Helping Customers and the State Meet their CLCPA Goals**

Ms. Sarah Salati, Executive Vice President and Chief Commercial Officer, provided highlights of NYPA's contributions to the achievement of the Climate Leadership and Community Protection Act ("CLCPA") goals. She said that, based on the trends seen in the energy sector, the ambitious CLCPA policy goals, the technology that has been introduced into the energy sector and the cost to clients, and the evolution of customer preferences, and taking the Authority's approach into its workplace relative to access to information, convenience, and simplicity are making renewable integration of the technologies more cost-effective. Based on this energy transformation, decisions are more complex for the Authority's customers. However, NYPA will continue to help its customers navigate the complexity of the energy transformation to achieve their sustainability objectives.

NYPA has been a trusted advisor to its customers for decades with a range of products and services available and will continue to put the customers at the forefront of its 2030 strategy. This includes municipalities, cooperatives, local governments, state agencies, as well as the small, medium-sized, and large commercial industrial customers that are located across the state and support driving the economy and the livelihoods of the people of New York state.

NYPA has a range of products and services for supporting its customers and supporting the Authority in meeting the targets of the CLCPA. NYPA has two predominantly focused areas, namely, its Electricity Supplier, its large hydroelectric power facilities, and Behind the Meter services. NYPA is working with its customers to navigate the energy transformation and support the state's objectives in its Clean Energy Policy agenda and meet the aspiration of the Authority's vision statement for a thriving and resilient New York.

Ms. Salati then invited Keith Hayes, Senior Vice President of Clean Energy Solutions, Evan Kolkos, Senior Manager of Customer Business Development and Rebecca Hughes, Senior Manager of e-Mobility Marketing & Customer Experience to provide highlights on some of the products and services NYPA has for its customers.

Decarbonization and Clean Energy Initiatives

Mr. Keith Hayes said that the CLCPA goals are tied to the state and NYPA's customers' evolution. NYPA's customers have greater expectations for improved service levels with the need to decarbonize, both of which are growing.

NYPA's customers have expressed high uncertainty relative to macroeconomic recovery from the pandemic which continues to challenge them. However, NYPA finds that leveraging its current programs, coupled with new business models, and becoming a trusted and integrated provider, ensures advancement of the customers' desire for a cleaner, more decentralized, distributed and transactive electric grid, all of which are aligned with the objectives of the CLCPA. These targets will be formalized with other state agencies as the Authority works to achieve the aggressive goals. As a leading organization, NYPA can make a significant difference through the deployment of its Clean Energy Solutions such as Distributed Energy and Resources (DER), flexibility, and technology.

NYPA recognizes that some customers are more advanced than others and will prioritize and rank those customers who are lagging and will assist them to make that forward leap to decarbonization. NYPA also recognizes that the organization and its customers were forced to move from "on-premises" to "off-premises" remote work. In response, NYPA adjusted and heightened its customer engagement efforts, increasing communications with the customers at a time when they needed assurance that the Authority will be supporting them throughout this crisis, and beyond.

The customers expressed thanks to the Trustees for their support and the bold steps that the Authority took to help them navigate in these trying times. NYPA anticipates an increasing dependency in the near term, also recognizing that, for the next ten years, the Authority will play a pivotal role in how it navigates the transformation of the energy marketplace consistent with the CLCPA.

Economic Development, Energy Efficiency, and Customer Solutions Projects

Economic Development

- NYPA's Economic Development programs remain strong with more than 411,000 jobs created or retained, and approximately \$23B in capital investment commitments.
- NYPA's Energy Efficiency pipeline remains strong with historical investments of more than \$3B; more than 2300 projects completed and over 450 projects that are currently active.
- NYPA's customers have benefitted from more than \$250M per year in savings. In addition, NYPA have removed nearly 1.2 million tons of GHG from the atmosphere, coupled with approximately 265 megawatts of demand being taken off the grid.

NYPA is moving forward in a more agile and analytically driven way, leveraging its assets, people, processes, and technology so that the Authority can provide meaningful and cost-effective solutions for its customers by identifying the customers' journey and mapping out those processes and capabilities, through co-development solutions with the customers to ensure that the Authority is meeting their needs.

- NYPA understands that advancing these solutions require an ecosystem and interdependences of internal teams, external partners, suppliers, and its customers. NYPA plans to maintain and build upon those strong interdependences to ensure its customers' success into the future.

Customer Solutions Projects That Enabled Decarbonization

- NYPA's customer solution projects that have enabled decarbonization include Energy Efficiency, Distributed Energy Resources, and EVolve New York.

Energy Efficiency

- The Five Cities Energy Plan is an effort to improve energy efficiency by 20% by 2020 for municipal facilities, and 20% by 2030, citywide. The concept was to mirror the Authority's efforts with NYS agencies, conceptually, under Executive Order 88. To that end, in 2016, working with the with the five largest cities in the state, Albany, Buffalo, Rochester, Syracuse, and Yonkers, NYPA funded comprehensive, detailed Energy Master Plans for each city that became the roadmap for project development. Working closely with these large cities, NYPA assigned Energy Managers to act as liaisons, provide technical expertise, and to be the lead for project prioritization and implementation which are linked directly to NYPA's business development team.
- Some of the accomplishments from these efforts include approximately \$7.6 million in grants awarded; \$1.4 million in annual energy savings; ~8,000 metric tons of Greenhouse Gas savings and technical support for more than three years, and project installations at more than 200 locations.

NYPA is currently undertaking massive LED streetlighting projects, as well as Distributed Energy Resources (DER), advisory services, and other efforts with these cities.

DER Advisory Project

Mr. Evan Kolkos provided highlights on the Clean Energy Advisory Services or Distributed Energy Resources Services that NYPA has implemented on behalf of its customer base throughout New York State. He said that this is a turnkey owner's representative, trusted energy advisory service for NYPA's customers. Incorporating such solutions like solar and battery storage is new for many of the Authority's customers. Through cross-functional teams, NYPA have worked to streamline processes, such as contracts, and other mechanisms so that all the Authority's customers can benefit from these services.

NYPA is also working closely with the private sector to make sure that it is developing good projects in its role as the owners' representative. A majority of the solar and battery storage projects in New York State are through long-term power purchase agreements that are financed by the private sector. DER trends for NYPA's customers have been growing tremendously; however, while they have high sustainability and chartered goals, NYPA and its customers also want to be fiscally responsible, optimizing sites and making sure they figure out where the most appropriate places are to incorporate these solutions. When NYPA established this service, only a few of its customers enrolled; NYPA is now working with many customers across the state such as state agencies and authorities, local municipalities, and both supply and traditional energy service customers.

NYPA is partnering with the Port Authority in New York and New Jersey for a large solar PV plus battery energy storage system at JFK International Airport; when completed, it will be the largest solar plus storage project currently in development in the state. The solar and storage will go to service the needs of the airport, which has significant load, and half of it will be constructed as a community solar project, Community Distributed Generation, whereby a portion will be offered to the local communities surrounding JFK, a significant portion of which will go to low- and moderate-income households. Through this process and agreement structure, the customers will receive guaranteed bill savings as per the policy of community solar in New York State. These projects are all part of the Authority's and its customers' contributions to the Climate Leadership and Community Protection Act.

Evolve New York

Ms. Rebecca Hughes discussed the work that EVOlve New York is undertaking with the NYS Department of State as part of its Downtown Revitalization Initiative. She said that Evolve New York is NYPA's consumer facing, fast charging EV business.

NYPA is currently installing a charger at a construction site in Schroon Lake, New York, to make the Adirondacks more accessible for EV drivers. Through the end of this year, NYPA will have about six sites with approximately 25 chargers in operation.

By the end of 2021, NYPA will have a comprehensive network of ~200 DC fast chargers at 50 locations open to the public. Among those will be some downtown locations, with one in each of the 10 Regional Economic Development Council zones, that NYPA has identified in partnership with NYS Department of State as part of its Downtown Revitalization Initiative (DRI). These locations will help to democratize electric vehicle ownership so that anyone in New York can start to envision themselves as an electric vehicle driver and can have access to charging in their home community.

EVolve NY also plays a vital role in tourism, attracting EV drivers to the downtown areas. Approximately one-third of EVolve New York's portfolio of sites are in Environmental Justice ("EJ") communities. This also plays an important role in market transformation.

NYPA's investment in EV fast charging is designed to help New York State get into mass market adoption of EVs. In addition, NYPA is also setting an example for private developers who might be on the fence about investing capital in EV fast charging or paving the way to greater infrastructure investments.

Several other regions throughout the state are in discussions regarding adding chargers in their municipality. These projects are a critical part of NYPA's portfolio, and the Authority looks forward to seeing them materialize over the next years.

Ms. Salati concluded saying that NYPA is on the cutting edge of bringing a number of projects and services to its customers and meeting their needs to accelerate and meet the CLCPA objectives. NYPA is a leader in this initiative and have a great team across the organization that is helping to bring this to fruition.

iii. **Resource Alignment**

Ms. Kristine Pizzo, Executive Vice President, Chief Human Resources (HR) and Administrative Officer, provided highlights on the three initiatives related to Resource Alignment (Workforce Planning; Knowledge Management; and Process Excellence) which supports NYPA's greatest asset, its people. She said that when NYPA began its Strategic Vision 2020, the changes in the energy industry landscape required these skills and capabilities. Workforce turnover was projected to increase due to retirements and increased staff mobility, and the speed in which the Authority needed to act was greatly accelerating. To that end, each of the initiatives were designed to address these challenges.

Workforce Planning

Workforce planning initiatives began by rebuilding some core HR programs from the ground up and HR seamlessly integrated specific skills and activities that were needed to advance the Authority's strategy. HR engaged the entire organization in the design and creation, not only to get feedback in order to develop programs that fit the Authority's needs, but to engage the employees in the process, give them ownership and include them on this journey.

- **Strategic Alignment**

In the beginning, HR leveraged technology to provide a single application platform so that managers and staff can manage all employment across the life cycle. As more programs were added to the menu in the tool, and many outside this tool, staff began to advance their skills in managing themselves, managing their teams, providing feedback, coaching, core competencies, design and understanding goal alignment, not only for their teams downward, but also aligning it up to the strategy.

As these capabilities continue to grow, HR deployed more sophisticated programs, such as Career Development, Succession Planning, Design Thinking, Innovation, and New Manager Development to cultivate a flexible and dynamic workforce.

- **Employee Engagement**

Over the course of this initiative, the HR team led thousands of talent development activities for management and staff. HR analyzed 20,000 points of employee feedback data and incorporated them into the program. Eighty percent of staff feels that NYPA is providing them development and growth opportunities. Ninety-two percent understand how their work contributes to the overall strategy.

The overall employee engagement scores have increased to four times within the same period and NYPA have received national recognition as the best employer for the first time in its history.

Knowledge Management

The Knowledge Management initiative is designed to reduce knowledge loss due to projected turnover and movement. It also provides greater access to information in order to quickly deliver the Authority's programs to staff. To preserve, disseminate and share this knowledge, HR deployed programs at both the enterprise and individual level.

At the enterprise level, HR used search tools to digitize documents and implemented document management tools in order to automate access to information and also expose a large volume of content that was not readily available.

At the individual level, information was captured from HR's technical experts, and staff moving in, out and around the organization to maintain continuity of knowledge. As a result, onboarding time was reduced by 50%; millions of documents are now readily discoverable using the enterprise search tools; more than 250K documents were digitized, and the lessons learned program captured and implemented hundreds of improvements.

Process Excellence

The Process Excellence program addresses the need to accelerate the delivery of HR's programs, and to make sure that they are accurate and efficient. Staff used various methods that were assigned to HR's improvement programs, qualitative and quantitative. Experts were trained on implementing improvements using Lean, Agile and Six Sigma methods. Process Excellence focused on large-scale complex improvement projects spanning multiple departments and business units. HR wanted to make sure that it was cultivating a culture of continuous improvement so that it will not be just an activity, but a mindset that can be executed daily.

Resource Alignment

HR's strategy for Vision 2030 is to continue its investment in the Authority's organizational capability.

Workforce Planning – Bringing talent and programs to the next maturity level.

- HR will continue to engage staff to embed their values deeper into NYPA's culture.
- New technologies such as virtual reality and artificial intelligence (AI) will be used to accelerate learning.
- HR is deploying advanced workforce analytics to help with decision-making. This is to improve the internal talent pipeline to an enterprise-wide career path and framework.
- HR will develop career path to enable transparency and clarity in professional development for employees and give HR a better sense of skill gaps and how to address them.

Knowledge Management – Enabling success through collaboration and sharing.

HR is integrating the capture and sharing of knowledge in its day-to-day work making sure that this a part of their daily lives, not just an activity that is done on an ad hoc basis.

HR is using technology such as AI and enterprise content management tools to continue automating the access to knowledge so that they can quickly get the right information at the right time to the right people.

Process Excellence – Instilling a culture of continuous improvement.

HR will continue to focus on the high impact areas for improvement. In this initiative, to date, HR saved over \$10 million in costs and capacity savings.

HR also wants to drive the adoption across the organization by training employees on these methods, specifically driving them to improve project management, use of allocation, and prioritization capabilities.

Overall, with these initiatives, HR intends to cultivate an organization that demonstrates not only NYPA's vision and values, but also shows that they are capable and engaged to deliver Strategy 2030 and beyond.

iv. **Resilience**

Mr. Saul Rojas, Vice President of Enterprise Resilience, provided highlights on the three initiatives related to Resilience and how they directly tie into NYPA's 2030 Vision. He said that the world and the utility industry are changing. Some of the changes occur out of space, such as climate change, and some occur acutely, as seen in the new normal post-COVID-19. NYPA needs to continue living up to its legacy of being a resilient company. As NYPA goes into that gate, its grade will transform where its current operating paradigm will be challenged. NYPA and Canals need to be even more resilient and ensure that resilience is part of its DNA.

Enterprise Resilience

The term resilience has a broad meaning. To some, resilience means cyber and physical security, to others, climate adaptation. Resilience can also mean personal endurance; its meaning is adaptable. NYPA and Canals need to set a "North Star" as they forge ahead on the resilience journey. This definition is based on Presidential Policy Directive 21 issued in 2013 to ensure the resilience of critical infrastructure. NYPA and its assets are critical infrastructure.

NYPA has made key steps in building resilience

NYPA has a legacy of being a resilient company, and this is the current framework that is its stronghold. However, it will need to evolve. As NYPA evolve, it needs to build upon its past successes from impactful events, such as Hurricanes Irene, Sandy, and Maria, or COVID-19, to the more routine events.

NYPA/Canals will continue evolving its mindset from the "what is now," to the "what is next." NYPA needs to be like a GPS and have the ability to recalculate quickly if there is a change in direction.

To tackle these emerging resilience themes, NYPA's vision is to embed resilience throughout the enterprise by building it into muscle memory.

To ensure that resilience is embedded into the NYPA/Canals DNA, the company needs to continue executing its core programmatic element, which includes business continuity planning, crisis management, compliance, and cyber and physical security, and to think beyond that.

The NYPA/Canals threat vectors are evolving. For example, as companies push for digitization by introducing IT and OT devices into the workplace, the threat landscape naturally grows.

Also, NYPA/Canals is a critical infrastructure. Adversaries may include advanced persistent threats. Another example is the supply chain, which can no longer be taken for granted. A disruption halfway around the world can impact NYPA's business and its supply chain can be used to infiltrate its business as well.

NYPA needs to tackle the wider range of resilience challenges, and this needs to be done from the top-down and bottom-up approach, and every employee has a role.

The strategy to embed resilience into NYPA's culture is based on three components:

First, NYPA needs to take its current resilience framework and develop and empower an enterprise-wide resilience function that sees threats and risks through a wide-angle lens and manages with a macro-lens position.

Second, NYPA needs to enhance its capability to identify strategic enterprise risks throughout the organization and enable employees to take action to ensure organizational viability.

Third, NYPA needs to establish, maintain and communicate a common operating picture understood by all employees at all levels to have situation awareness capability or effective decision-making, rapid actions, and appropriate mission execution.

Mr. Rojas ended by saying that he is looking forward to leading the Authority's resilience journey as part of NYPA's Vision 2030.

In closing, President Quiniones said that this is the end of NYPA's Strategic Vision2030 virtual retreat with the Boards. He said that, as mentioned at the beginning of the meeting, there will be a Finance Committee meeting on November 17th, where staff will discuss NYPA's budget for 2021 and four-year operating financial forecast that underpin Vision2030. On December 1st, staff will meet with the Governance Committee to present NYPA's final Diversity, Equity and Inclusion plan. This is a follow-up from the September Board meeting. Finally, at the Board meeting on December 9th, the members will have the opportunity to approve NYPA's Budget and Four-Year Financial Forecast, and Vision 2030 Strategic Plan.

President Quiniones thanked Yves Noel and the Strategy group, and the Executive Management team for putting together the most forward-looking strategy of any utility in the United States. NYPA continues with its legacy of leading from the front and always exploring "the art of the possible." He ended by saying that he wanted to thank the Board of Trustees for being engaged, providing valuable input and ideas to help sharpen the Strategic Plan, ultimately for the people of this State.

5. Next Meeting

The next regular joint meeting of the New York Power Authority's Board of Trustees and the Canal Corporation's Board of Directors will be held on December 9, 2020, unless otherwise designated by the Chairman with the concurrence of the members.

Closing

On motion made by Trustee Trainor and seconded by Trustee McKibben, the meeting was adjourned at approximately 12:09 p.m.

Karen Delince

Karen Delince
Corporate Secretary

POWER AUTHORITY OF THE STATE OF NEW YORK
AND
NEW YORK STATE CANAL CORPORATION

EXHIBITS

For

November 12, 2020

Joint Special

Meeting Minutes



**NY Power
Authority**

VISION2030 Strategy Retreat Workshop

November 12th Board Presentation

A message from our President and CEO

NYPA has long been committed to building a thriving, resilient New York State powered by clean energy. As we begin the next decade, we have been challenged by a global pandemic that may be the most disruptive event in living memory. I am proud to say that NYPA has risen to the challenge, mounting a coordinated and effective response. And, we are taking what we have learned from this experience to ensure our 10 year strategy can weather any future disruptions that may face our state. We have more confidence now than ever in the resilience of NYPA, our customers, employees, and the residents of New York State.

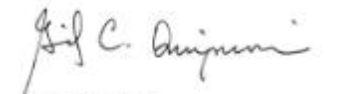
The transition to a clean energy economy is the foundation on which New York State will maintain energy resilience. VISION2030 places energy resilience at the center of our strategic plan.

Under the leadership of Gov. Andrew M. Cuomo, New York State has enacted nation-leading, clean energy legislation. The Climate Leadership and Community Protection Act (CLCPA) establishes the path to full decarbonization of the electricity grid by 2040 and a carbon-neutral state economy by 2050. We acknowledge NYPA's significant role in achieving this vision for New York State and will facilitate our customers' journeys to a thriving, carbon-free economy. We are up to the challenge; for more than 60 years, NYPA has deployed its clean hydropower assets, transmission network, and energy management expertise to stimulate job creation and capital investment across the state.

As NYPA continues to provide affordable, reliable, clean electricity, we will increasingly focus our efforts on transforming the way our customers use energy. Through carbon-free electricity and the electrification of vehicles and buildings, we will partner with our customers to ready them for the grid of the future. Strategic investments in energy efficiency, expanded transmission infrastructure, renewables generation, optimized electrification, and digitization will drive this transition.

This transformation can only be successful if it is done equitably with all communities – especially those underserved today – to achieve a cleaner, more prosperous future. NYPA will continue to support New York communities through our economic development and environmental justice programs, and will seize the opportunity to make economic and energy inclusion a top priority.

With NYPA's perspective and scale, diverse assets and innovative talent, we provide unique value to New York. We continue to lead by example, ambitiously pursuing decarbonization without compromising the state's thriving economy, and thus create a blueprint for others to follow.


Gil C. Guiniones
President and Chief Executive Officer



Agenda



1. Decarbonizing Gas Power Plants



2. Customer & New York State CLCPA Goals



3. Resource Alignment



4. Resilience

Agenda



1. Decarbonizing Gas Power Plants



2. Customer & New York State CLCPA Goals



3. Resource Alignment



4. Resilience

NYPA unveiled an agreement to assess how NYPA can transition its natural gas fired plants to utilize clean energy technologies

NYPA and Environmental Justice Groups Agree to Explore Options for Transitioning NYPA's Natural Gas 'Peaker' Plants to Cleaner Energy Technologies

For Immediate Release: 10/13/20
NYPA Contact: Susan Craig | Media.Inquiries@nypa.gov | (914) 287-3691
PEAK Coalition Contact: Eddie Bautista | eddie@nyc-eja.org | (347) 841-4410

Landmark Agreement to Explore Battery Storage and New Low to Zero Carbon Emission Resources and Technologies to Continue to Reliably Meet New York City's and Long Island's Peak Energy Demands, Ensure Resiliency of Grid

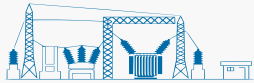
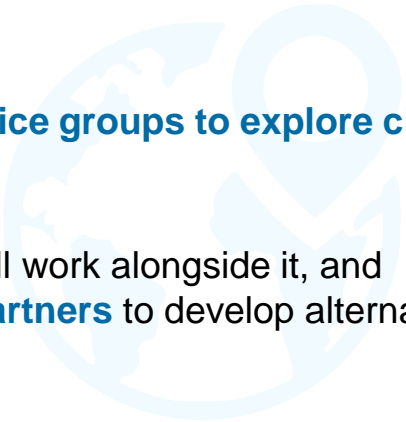
WHITE PLAINS—The New York Power Authority (NYPA) and the PEAK Coalition, a group of five leading environmental justice and clean energy interests, today unveiled an agreement to assess how NYPA can transition its natural gas fired 'peaker' plants, six located in New York City and one on Long Island with a total capacity of 461 megawatts, to utilize clean energy technologies, such as battery storage and low to zero carbon emission resources and technologies, while continuing to meet the unique electricity reliability and resiliency requirements of New York City. The agreement sets the path for the transition of NYPA's plants to low to zero carbon emission resources and technologies. Implementation of such technologies will help accelerate the clean energy goals outlined in Governor Andrew M. Cuomo's [Climate Leadership and Community Protection Act](#), nation-leading climate legislation passed last year, that calls for zero-carbon emission electricity in New York State by 2040.



10/13/2020 NYPA Press Release: Transitioning NYC's SCPP ('Peaker') Plants



- 1 NYPA will work with the PEAK Coalition to assess how it can **transition its natural gas fired SCPP ('Peaker') plants** (461 MW) using battery storage and low to zero carbon emission resources and technologies, while continuing to meet the electricity requirements of New York City
- 2 NYPA will **collaborate with environmental justice groups to explore cleaner energy options** for its entire fleet of SCPPs
- 3 NYPA has agreed to support consultants who will work alongside it, and **independently support the PEAK Coalition partners** to develop alternative clean energy replacement options



NYPA is clearing the path to transition New York from fossil fuel generation, leading the industry by example as a first-mover and continuing to act as a critical player in stabilizing the grid as it transitions to cleaner sources of energy

Agenda



1. Decarbonizing Gas Power Plants



2. Customer & New York State CLCPA Goals



3. Resource Alignment



4. Resilience

Customer and State

our 2030 vision



Partner with our customers and the state to meet their energy goals in alignment with CLCPA by providing clean and affordable energy along with innovative customer solutions

NYPA’s has set customer centric goals to support the state’s decarbonization efforts

New York State: Decarbonization & Clean Energy Initiatives



CLCPA

New York State’s path to a net-zero carbon economy by 2050 (and 70% renewable energy by 2030)



New Efficiency New York

Comprehensive set of strategies for delivering energy efficiency gains across the state



Charge NY

Transport emissions reductions through build-out of EV market and infrastructure



NYC Climate Mobilization Act

Package of bills representing NYC’s path to achieve carbon neutrality by 2050



Executive Order 166

Calls on state agencies to “lead by example” and realize GHG emission reductions



NYPA targets supporting state decarbonization efforts

Renewable Contracted Supply	51% by 2025	70% by 2030	Supporting customer businesses <ul style="list-style-type: none">DER AdvisoryFlexibility/Grid Edge Solutions
Distributed Solar Generation	325MW by 2025	500MW by 2030 ²	
Customer-site Storage	50MW by 2025 ²	150MW by 2030	
Grid-scale Storage ¹	150MW by 2025 ²	300MW by 2030	
Onsite Energy Savings	11TBTU by 2025		<ul style="list-style-type: none">Energy EfficiencyNYEM
GHG Emissions Reduction	4.7MMT by 2025	5.0MMT by 2030	<ul style="list-style-type: none">Applies to all businesses

NYPA has an established energy efficiency solution and economic development supply business; other customer solutions are fast-growing new businesses

Mature business

New venture

Business Line	Maturity	Description
Electricity Supply	<div></div>	Incentivizes creating / preserving jobs and capital investments by offering discounted power allocations to qualifying business
	<div></div>	Provides “green” customer supply to our customers by pairing market power with hydro attributes and BG capacity
Behind the Meter	<div></div>	Enables the reduction of energy consumption by acting as a turnkey energy efficiency provider for customer sited projects
	<div></div>	Corresponding maintenance business to support the street lighting energy efficiency conversion
	<div></div>	Empowers customers to optimize energy consumption with a digital energy management service (available to all NYPA customers)
	<div></div>	Promotes renewable energy by providing an advisory service for customers to evaluate, size and facilitate installation of distributed energy resources
	<div></div>	Enables DER aggregation and control by creating a virtual power plant to optimally manage customer sited DER assets
EVoLve	<div></div>	Accelerates the adoption of electric vehicles (EVs) by providing public direct current fast charging stations for EVs
	<div></div>	Supports transit authorities across the state to electrify their fleets by providing charging infrastructure for electric busses

NYPA's customer solutions projects have enabled various entities' decarbonization efforts

EXAMPLE PROJECTS

■ Completed project ■ In progress project

	Energy Efficiency & NYEM: Five Cities Energy Plan	DER Advisory: JFK International Airport Solar PV + Storage	EVolve: DRI - EV Charging Stations
Goal	Cities work toward improving energy efficiency 20% by 2020 for municipal facilities and 20% by 2030 citywide (i.e. including private buildings)	Install a solar PV plus battery energy storage system consisting of 5MW of Community Distributed Generation to be offered to the JFK stakeholder community	Expand deployment of electric vehicle (EV) fast charging stations in eight Downtown Revitalization Initiative (DRI) communities across the state
Status / Cost	Start: 2016 → Complete Total cost: \$35 million	Start: 2019 → Target completion: 2022 Total cost: N/A	Start: 2021 → Target completion: 2022 Total cost: TBD (announced Oct 1 2020)
Details	Working with the five cities, NYPA: <ul style="list-style-type: none"> • Financed grants to facilitate implementation • Created an energy liaison position to serve as link between NYS agencies and the five cities, and provide technical expertise and streamlined support 	Solar + Storage project details: <ul style="list-style-type: none"> – 12,315 kW solar carport system – 24,750 kWh of battery energy storage • Generate more than 4 million kWh of community solar credits to the JFK Community, providing bill savings to more than 4,000 LMI households • Nearly 8 million pounds of CO₂e will be offset from the NYC grid per year 	<ul style="list-style-type: none"> • EVolve fast chargers capable of charging vehicles in 20 to 30 minutes • NYPA will pay all costs related to: <ul style="list-style-type: none"> – The purchase and installation of the EV hardware (and infrastructure upgrades) – All operating costs • Chargers will be owned and operated by NYPA (EVolve) - at no cost to the DRI communities
Collaborators	Cities of Albany, Buffalo, Rochester, Syracuse, and Yonkers	NYSERDA, NY Department of Public Service, ConEdison	NY Department of State; eight municipalities



Partner with our customers and the state to meet their energy goals in alignment with CLCPA by providing clean and affordable energy along with innovative customer solutions



A Grow our retail supply business by pursuing the right opportunities with existing customers and under our expanded authority



B Support our customers and the state by providing a 70% renewable energy supply in a cost-effective manner



C Empower our customers to decarbonize by serving as a trusted energy advisor providing integrated energy solutions



D Ensure a financially sustainable customer business to serve our customers and the state



E Expand our capabilities to be able to competitively offer integrated solutions

Agenda



1. Decarbonize Gas Power Plants



2. Customer & New York State CLCPA Goals



3. Resource Alignment



4. Resilience

Resource Alignment our 2030 vision



Workforce Planning
Knowledge Management
Process Excellence

To grow our organizational capability to ensure we can provide the clean, leading-edge energy environment the people of New York deserve

Building on the exceptional capabilities and experience of our employees to make our workforce as skilled and flexible as possible; improve access to the information and knowledge that enable effective delivery; and optimize NYPA's core business processes

Resource Alignment: The changing landscape of the energy industry makes it vital to continue investing in our workforce to develop talent, maintain continuity and improve efficiency.

<u>Resource Area</u>	<u>Aim</u>
Workforce Planning	Create innovative and curated experiences to attract, engage, and inspire a skilled, diverse, and resilient workforce
Knowledge Management	Capture and disseminate institutional knowledge and use innovative technologies to make it accessible to the right staff at the right time
Process Excellence	Optimize NYPA’s core business processes and instill a culture of continuous improvement across the enterprise

Workforce Planning: Create innovative and curated experiences to attract, engage, and inspire a skilled, diverse, and resilient workforce

Strategic Alignment

Integrated core competencies, organizational values and goals cascaded and aligned to the strategy.

Foundational Systems

HR operating model to embed programs and career management tools:

- Analytics
- Career development
- Compensation
- Goal planning
- Learning management
- Performance management
- Recruitment
- Succession planning

Succession Planning

Dynamic resource management for business continuity, development, transparency and address talent pipeline gaps.

Training and Development

Created and customized curated training, career development and signature programs.

- Competencies
- Design Thinking
- DRIVE Blue Management Development
- Innovation
- LEAD Blue Leadership Development
- MBA in Sustainability
- New Manager Development

Employee Engagement

HR led thousands of talent development activities, for management and staff. Employee engagement scores increased by 2 quartiles and achieved two Forbes Best Employer awards the first time in NYPA history.

- | | | |
|-------------------------------|-----------------------|------------------------|
| ✓ Employee Value Proposition | ✓ Innovation Programs | ✓ Social Collaboration |
| ✓ Employee-driven Development | ✓ Tailored Coaching | ✓ Assessment Tools |

Knowledge Management: Capture and disseminate institutional knowledge and use innovative technologies to make it accessible to the right staff at the right time

Targeted Knowledge Capture & Dissemination

- **Technical Experts** Portal to access expert-level knowledge
- **Lessons Learned** Standardization of lessons learned for sharing and implementing improvements
- **Knowledge Transfer** Capture and share information from transitioning employees and accelerate onboarding



Enterprise Tools

- **Digitization** Conversion and classification of documents from paper to digital
- **Enterprise Content Management** Framework to improve the retention and storage of information
- **Search Integration** A single structured search tool integrated across systems to find information

Key Accomplishments

- Knowledge Continuity program reduced onboarding time by 50%
- Enterprise search and taxonomy tools discover over 1.7M documents
- Digitized over 250K critical documents
- Database of over 600 documents of curated content from technical experts
- Lessons Learned program standardized the capture and share of 300 improvements

Process Excellence: Optimize NYPA's core business processes and instill a culture of continuous improvement across the enterprise

Methodologies

- Six Sigma to improve quality and accuracy, Lean to reduce waste and Agile to accelerate delivery

Enterprise-Wide Improvement Programs

- Process Excellence Black Belt staff led complex enterprise-wide improvements



Continuous Improvement Skills Training

- Lean, Agile and Six Sigma training includes problem solving, prioritization, project management and resource loading

Expert Skill Development

- On-the-job training where experts are certified to apply methods and statistical tools for implementation

Key Accomplishments

- 250 Staff trained on implementing Lean, Six Sigma and Agile methods
- 24 Large-scale and complex Black Belt process improvement projects
- 150 Staff received Lean Six Sigma, Agile, Green or Yellow Belt Certifications

Over \$10M cost and capacity savings through improvement projects

Our strategy to continue investing in our organizational capability

A



Workforce Planning: Bringing talent and programs to the next maturity level

- **Activate NYPA's Values through action, education and communication**
- **Incorporate new technologies, such as virtual reality and artificial intelligence into talent acquisition and development**
- **Expand workforce analytics and performance metrics**
- **Develop career path framework for transparency in professional development**

B



Knowledge Management: Enabling success through collaboration and sharing

- **Enable peer-to-peer education to create a knowledge sharing culture**
- **Deploy enterprise content management tools to increase access and dissemination of content**
- **Apply artificial intelligence and machine learning to customize access to content**

C



Process Excellence: Instilling a culture of continuous improvement

- **Provide all staff with core process improvement and work management capabilities**
- **Focus on high-impact areas for improvement**
- **Drive enterprise-wide adoption of Lean and Agile methods**

Agenda



1. Decarbonize Gas Power Plants



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4. **Resilience**

Resilience

OUR 2030 VISION



Preparing for a more distributed and uncertain operating environment by rapidly embedding resilience into NYPA's culture

Defining Enterprise Resilience

NYPA is working to build, maintain, and implement its resilience capability. Resilience is the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions. Resilience includes the ability to withstand and recover from deliberate attacks, accidents and naturally occurring threats and incidents.



NYPA has made key steps in building resilience

Physical Security and Crisis Management

- Hosted multiple multi-agency security briefings with partners in order to continue to support our security posture.
- Worked with IT & OT to Facilitate Incident Response Drills at all NYPA Projects
- Led 2nd Wave planning and action reporting and facilitated support effort to high-level NYS officials for COVID response

Reliability Standards and Compliance

- Supply chain security enhanced by effectuating compliance with NERC CIP013
- Robust and reliable power system: looking at asset criticality and planning for equipment outage scenarios to support reliable and resilient grid operations
- Work with regulators to showcase NYPA's internal controls and best practices

QA/ Code / EH&S Compliance Audit

- Use of remote/virtual technologies to support factory inspections of critical equipment
- Building Code Compliance program improvements

Energy Security and Resilience Programs

- Conducted assessment of NYPA Energy Security current state
- Identified areas to buttress existing NYPA Energy Security processes



To tackle these emerging resilience themes, our vision is to embed resilience throughout the enterprise by building it into muscle memory

Current Tactical Approach

- Focusing on **span of control with targeted partnerships**
- Leveraging existing resources to develop or implement **incremental programmatic improvements** within Business Continuity Planning, Insider Threat, and Supply Chain

Integrated business

- Resilience **posture and concepts assimilated** by all business units and personnel and fused with established processes. Resilience becomes part of our DNA
- Program(s) are **funded and resourced** to achieve success
- **Resilience mindset** and importance is promulgated from the top-down and bottom-up

VISION2030

- Resilience is cemented as a priority pillar, **embedded across and throughout** the enterprise
- Internal or external shocks causes **quick recalibration** and redirects the organization to our North Star
- Resilience is both **strategic and operational**
- Workforce acceptance, resilience understanding and importance

To achieve this, our strategy to embed resilience into NYPA's culture is based on three components

