PROPOSED AGENDA

November 12, 2020 at 10:00 a.m.
Videoconference

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

2. Motion to Conduct an Executive Session

3. Motion to Resume Meeting in Open Session

4. DISCUSSION AGENDA:
   a. Vision 2030 Strategy Development
      i. Decarbonizing Gas Power Plants -- (Gil Quiniones)
      ii. Helping Customers and the State Meet Their CLCPA Goals -- (Sarah Salati/ Keith Hayes/ Evan Kolkos)
      iii. Resource Alignment (Kristine Pizzo)
      iv. Resilience -- (Saul Rojas)

5. Next Meeting
2. **Motion to Conduct an Executive Session**

I move that we conduct an executive session to discuss the financial and credit history of a particular corporation (pursuant to §105 of the Public Officers Law).
Motion to Resume Meeting in Open Session

I move to resume the meeting in Open Session.
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.

[Image]
Agenda

1. Decarbonizing Gas Power Plants
2. Customer & New York State CLCPA Goals
3. Resource Alignment
4. Resilience
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@nyppa.gov | (914) 287-3691
PEAK Coalition Contact: Edible Brooklyn | Ebrooklyn@ediblebk.org | (917) 641-4410

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, recently passed by the state legislature, 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

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

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

<table>
<thead>
<tr>
<th></th>
<th>Renewable Contracted Supply</th>
<th>Distributed Solar Generation</th>
<th>Customer-site Storage</th>
<th>Grid-scale Storage</th>
<th>Onsite Energy Savings</th>
<th>GHG Emissions Reduction</th>
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<tbody>
<tr>
<td></td>
<td>51% by 2025</td>
<td>325 MW by 2025</td>
<td>50 MW by 2025^2</td>
<td>150 MW by 2025^2</td>
<td>11 TBTU by 2025</td>
<td>4.7 MMT by 2025</td>
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<tr>
<td></td>
<td>70% by 2030</td>
<td>500 MW by 2030^2</td>
<td>150 MW by 2030</td>
<td>300 MW by 2030</td>
<td></td>
<td>5.0 MMT by 2030</td>
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Supporting customer businesses

- DER Advisory
- Flexibility/Grid Edge Solutions
- Energy Efficiency
- NYEM

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

<table>
<thead>
<tr>
<th>Business Line</th>
<th>Maturity</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Economic Development</td>
<td>![Mature business]</td>
<td>Incentivizes creating / preserving jobs and capital investments by offering discounted power allocations to qualifying business</td>
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<tr>
<td>Green supply</td>
<td>![New venture]</td>
<td>Provides “green” customer supply to our customers by pairing market power with hydro attributes and BG capacity</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>![Mature business]</td>
<td>Enables the reduction of energy consumption by acting as a turnkey energy efficiency provider for customer sited projects</td>
</tr>
<tr>
<td>Street Lighting Maintenance</td>
<td>![Mature business]</td>
<td>Corresponding maintenance business to support the street lighting energy efficiency conversion</td>
</tr>
<tr>
<td>NYEM</td>
<td>![Mature business]</td>
<td>Empowers customers to optimize energy consumption with a digital energy management service (available to all NYPA customers)</td>
</tr>
<tr>
<td>DER Advisory</td>
<td>![New venture]</td>
<td>Promotes renewable energy by providing an advisory service for customers to evaluate, size and facilitate installation of distributed energy resources</td>
</tr>
<tr>
<td>Flexibility/Grid Edge Solutions</td>
<td>![New venture]</td>
<td>Enables DER aggregation and control by creating a virtual power plant to optimally manage customer sited DER assets</td>
</tr>
<tr>
<td>DC Fast Chargers</td>
<td>![Mature business]</td>
<td>Accelerates the adoption of electric vehicles (EVs) by providing public direct current fast charging stations for EVs</td>
</tr>
<tr>
<td>Fleet Electrification</td>
<td>![New venture]</td>
<td>Supports transit authorities across the state to electrify their fleets by providing charging infrastructure for electric busses</td>
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1 Defined by current operating margin based on 2020 estimates; Margins and cost-recovery will change as businesses mature.
NYPA’s customer solutions projects have enabled various entities’ decarbonization efforts

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<td></td>
<td>Cities work toward improving energy efficiency 20% by 2020 for municipal facilities and 20% by 2030 citywide (i.e. including private buildings)</td>
<td>Install a solar PV plus battery energy storage system consisting of 5MW of Community Distributed Generation to be offered to the JFK stakeholder community</td>
<td>Expand deployment of electric vehicle (EV) fast charging stations in eight Downtown Revitalization Initiative (DRI) communities across the state</td>
</tr>
<tr>
<td>Total cost</td>
<td>$35 million</td>
<td>N/A</td>
<td>TBD (announced Oct 1 2020)</td>
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**Details**
- Working with the five cities, NYPA:
  - **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

**DER Advisory: JFK International Airport Solar PV + Storage**
- **Solar + Storage project details:**
  - 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

**Collaborators**
- Cities of Albany, Buffalo, Rochester, Syracuse, and Yonkers
- NYSERDA, NY Department of Public Service, ConEdison
- NY Department of State; eight municipalities

**Additional Information**
- EVolve fast chargers capable of charging vehicles in 20 to 30 minutes
- NYPA will pay all costs related to:
  - 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
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
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.

<table>
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<tr>
<th>Resource Area</th>
<th>Aim</th>
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<tr>
<td>Workforce Planning</td>
<td>Create innovative and curated experiences to attract, engage, and inspire a skilled, diverse, and resilient workforce</td>
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<tr>
<td>Knowledge Management</td>
<td>Capture and disseminate institutional knowledge and use innovative technologies to make it accessible to the right staff at the right time</td>
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<tr>
<td>Process Excellence</td>
<td>Optimize NYPAs core business processes and instill a culture of continuous improvement across the enterprise</td>
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**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
-✓ Employee-driven Development
-✓ Innovation Programs
-✓ Tailored Coaching
-✓ Social Collaboration
-✓ 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

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

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

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
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Resilience
OUR 2030 VISION

Preparing for a more distributed and uncertain operating environment by rapidly embedding resilience into NYPAs’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:

A. Develop an empowered enterprise-wide resilience function that coordinates management of existential threats and cross-cutting strategic risks.

B. Pro-actively identify strategic enterprise risks throughout the organization and enable employees to take action to ensure organizational viability.

C. Establish, Maintain, and Communicate a Common Operating Picture (COP).
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.