



**NY Power
Authority**

**Canal
Corporation**

**JOINT SPECIAL MEETING OF
THE NEW YORK POWER AUTHORITY BOARD OF TRUSTEES
AND
NEW YORK STATE CANAL CORPORATION BOARD OF DIRECTORS**

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**

November 12, 2020

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).

November 12, 2020

Motion to Resume Meeting in Open Session

I move to resume the meeting in Open Session.



**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.

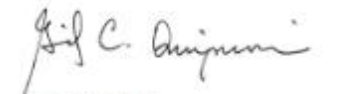
The transition to a clean energy economy is the foundation on which New York State will maintain energy resilience. VISION2030 places energy resilience at the center of our strategic plan.

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



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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

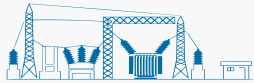
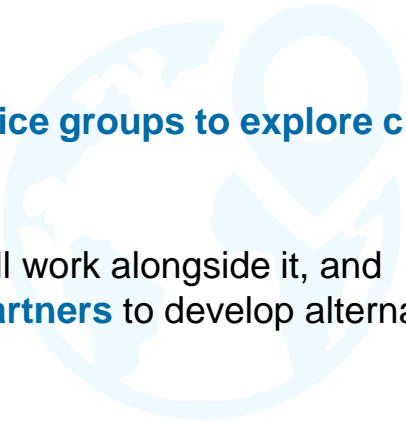
WHITE PLAINS—The New York Power Authority (NYPA) and the PEAK Coalition, a group of five leading environmental justice and clean energy interests, today unveiled an agreement to assess how NYPA can transition its natural gas fired 'peaker' plants, six located in New York City and one on Long Island with 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



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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	Economic Development	<div></div>	Incentivizes creating / preserving jobs and capital investments by offering discounted power allocations to qualifying business
	Green supply	<div></div>	Provides “green” customer supply to our customers by pairing market power with hydro attributes and BG capacity
Behind the Meter	Energy Efficiency	<div></div>	Enables the reduction of energy consumption by acting as a turnkey energy efficiency provider for customer sited projects
	Street Lighting Maintenance	<div></div>	Corresponding maintenance business to support the street lighting energy efficiency conversion
	NYEM	<div></div>	Empowers customers to optimize energy consumption with a digital energy management service (available to all NYPA customers)
	DER Advisory	<div></div>	Promotes renewable energy by providing an advisory service for customers to evaluate, size and facilitate installation of distributed energy resources
	Flexibility/Grid Edge Solutions	<div></div>	Enables DER aggregation and control by creating a virtual power plant to optimally manage customer sited DER assets
EVolve	DC Fast Chargers	<div></div>	Accelerates the adoption of electric vehicles (EVs) by providing public direct current fast charging stations for EVs
	Fleet Electrification	<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



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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

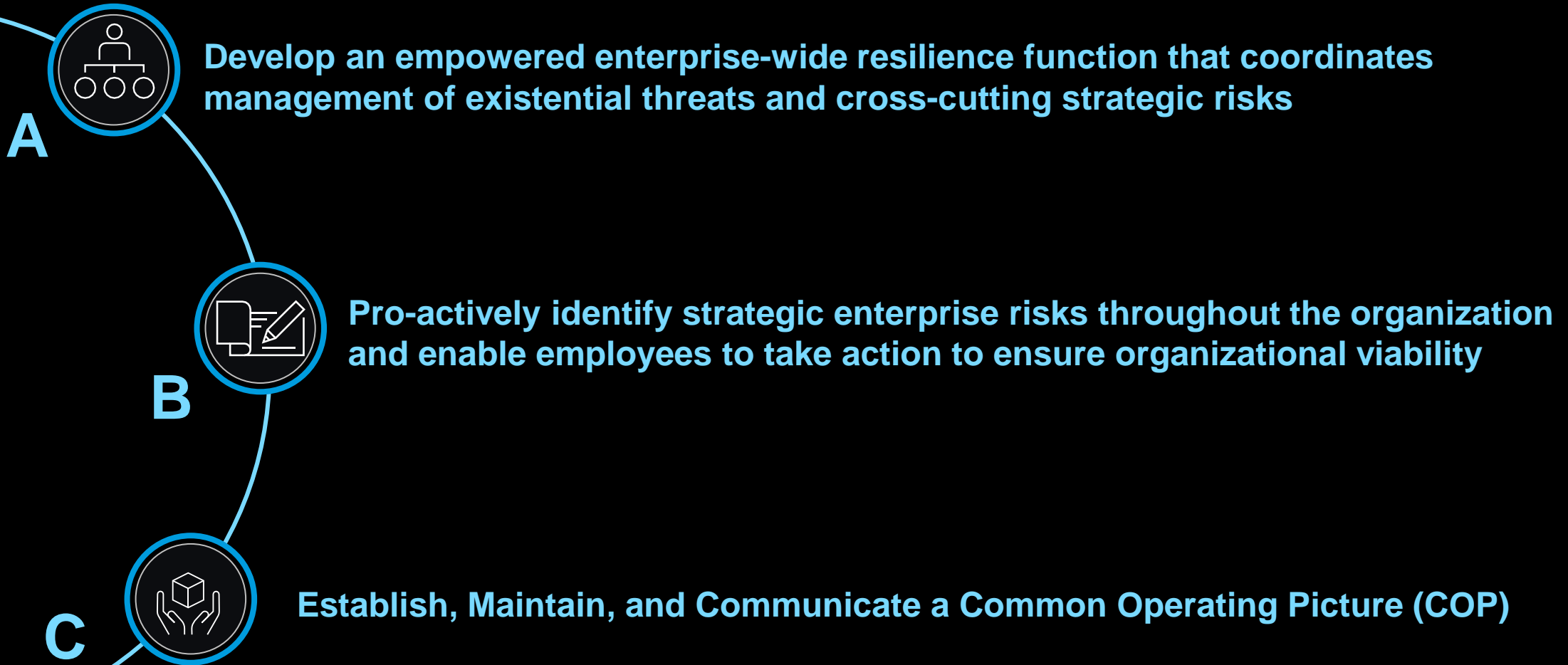
Integrated business

- 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



November 12, 2020

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.