

Expanding Enterprise Resilience Concepts within the Utility Industry

May 9, 2022 Saul Rojas – SVP SENY Operations

About NYPA and Biography

- Established by the NY State Legislature in 1931. Largest state public electric utility in the USA.
- Provides about 25% of New York State's electricity. No electric distribution.
- 2020 Net Gen. 31.89 billion kWh; 79% hydro; 21% gas/oil.
- Transmission: 1,400+ circuit miles; 115kV, 230kV, 345kV & 765kV.
- New York State Canals is a subsidiary.
- Does not use tax revenues or state credits, finances projects through bond sales and cash from operations.
- About me
 - SVP SENY Operations
 - 21 years industry experience / 12 years at NYPA
 - Mathematics / Electrical Engineering / MBA
 - Soccer youth coach

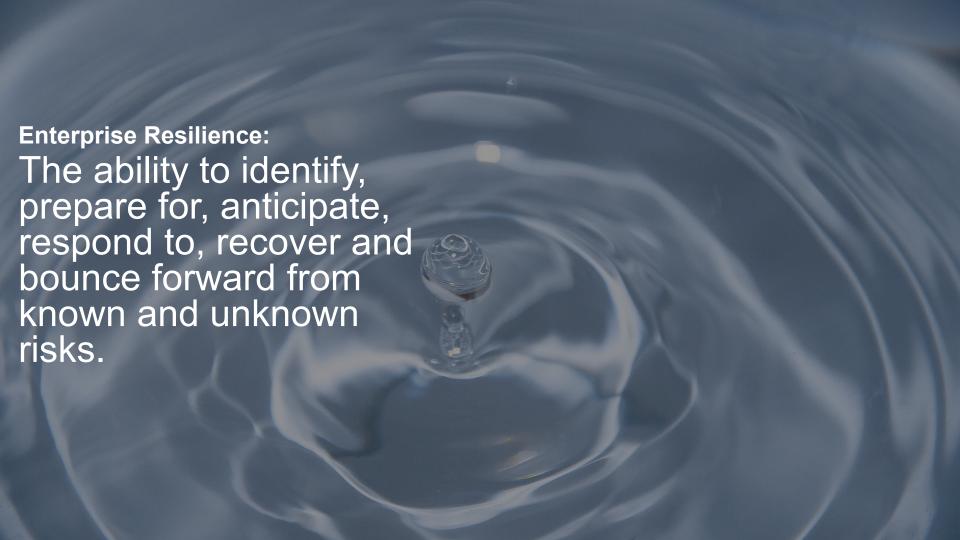


Agenda

- Defining resilience
- Why resilience?
- Expanding the resilience service catalog
- NYPA's journey
- Alignment with NYPA's strategy



Defining resilience



The term "resilience" means 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, or naturally occurring threats or incidents.

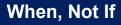
Presidential Policy Directive 21 (PPD) – 2013
 Critical Infrastructure Security and Resilience



Why resilience?

Why Resilience?







Increased Transparency



Seizing Opportunities

Why Resilience?



COVID-19

"The real organizational risk is a lack of imagination."

Participant at Toffler Associates'
 2018 Future Shock Forum



Expanding resilience

Expanding the Resilience Service Catalog



Enterprise Resilience Helps Us



BROADEN VIEW OF RISK TYPES & IMPACTS



"BOUNCE FORWARD" FROM
DISRUPTION



CHALLENGE TRADITIONAL WAYS OF THINKING



CROSS FUNCTIONALLY SOLVE
PROBLEMS



FACILITATE SYSTEMATIC, FACT-BASED RESILIENCE REVIEWS



CREATE ADVANTAGE IN THE MARKETPLACE



The What If Mind Set

- Set smalls goals to align with larger NYPA Enterprise Resilience Strategy and Goals
- Build time into meetings and strategic planning to reflect on NYPA's Enterprise Resilience posture
- Adopt flexible thinking viewing problems as opportunities
- Consider "worst case" scenarios to identify resilience gaps
- When you see resilience news headlines ask yourself "what if this happened at NYPA?"
- Ask team members to present and lead Resilience Moment conversations



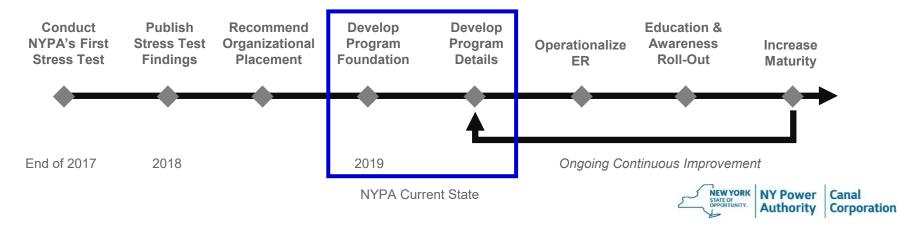


NYPA's journey

NYPA's Enterprise Resilience Journey

NYPA's legacy is an innovative and groundbreaking power authority. As NYPA moves into the highly interconnected, dynamic and digitized future, its ability to achieve its strategic vision will be tested. NYPA's leadership recognizes that the enterprise needs to be more resilient to thrive in the future.

Since 2017, NYPA has invested in enhancing the resilience of the enterprise. The focus began with an executive-level Stress Test to assess NYPA's ability to navigate disruptions and bounce forward in the new digital world. At the conclusion, NYPA leadership aligned around the value of resilience and acknowledged change was needed. NYPA named a new ER executive sponsor and established an ER Program. Business Unit leaders identified representatives to serve on an Enterprise Resilience Team (ERT) that meets regularly to support the development of the ER Program.



Energy Security and Resilience Programs

Vision

Drive NYPA's strategic vision and culture in resilience efforts for a secure grid, positioning NYPA as a leader in public power and energy sector

Purpose

The purpose of Energy Security and Resilience
Programs is to lead and support efforts to prepare
and secure NYPA against all hazards (current and
emerging), reduce the impact of disruptive events,
and respond to and rapidly recover from disruptions

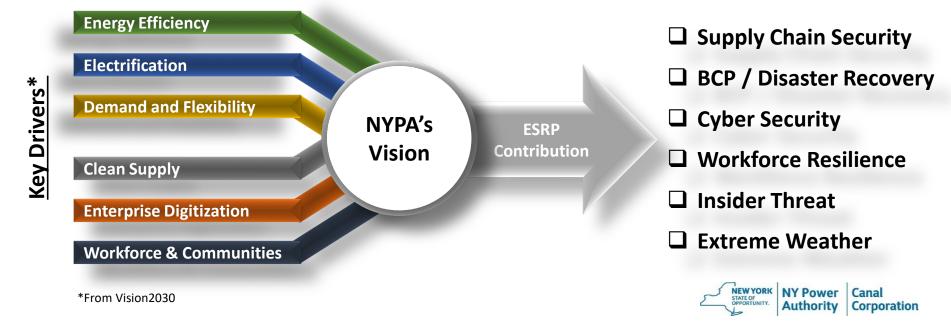
ESRP is not:

- × Risk Management
- X Internal Audit
- × Compliance-driven
- × A band-aid or a quick fix
- A siloed effort within Operations
- × The flavor of the month
- × A short-term effort
- ★ A cookie-cutter program(s)



Where We Are: Vision 2030

A thriving, <u>resilient</u> New York powered by clean energy.



Enterprise Resilience Program Objectives

NYPA's Enterprise Resilience program will ingrain resilient behaviors into the culture and how it works. Program objectives include creating the organizational ability to:

1

Broaden the view of risk types, consequences, and opportunities that could impact NYPA 2

Operationalize systematic, fact-based, and NYPA-wide reviews and decisions about risks and opportunities 3

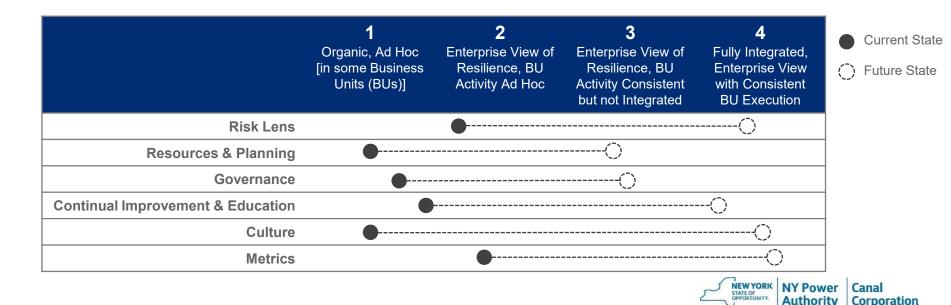
Establish new ways of operating by including proactive risk mitigation to more effectively prepare for possible disruptions, and even improve the situation more quickly

The new Enterprise Resilience Program will help NYPA work towards achieving these objectives as it works to become a more resilient enterprise.



Current State Maturity and Future State Goals

The ERT evaluated NYPA's current ER maturity using Toffler Associates' Enterprise Resilience Maturity Model and aligned on a desired end state for the NYPA ER Program by FY2021



High-Level Enterprise Resilience Roadmap

RISK LENS

Define requirements for non-traditional risks

RESOURCES & PLANNING

Onboard and build Enterprise Resilience team

GOVERNANCE

Enterprise Resilience Program policy developed

EDUCATION & IMPROVEMENT

Basic training materials & All Hands roll out

CULTURE

Key stakeholder accountabilities defined

METRICS

Implementation and programmatic metrics tracked

Implement non-traditional risk sensing processes at the Enterprise level

Update ERT member performance plans & Business Continuity Plans

Board of Trustees engaged & supporting procedures approved

Formal campaign & ER included in new employee training

Resilience integrated into daily conversations

Existing metrics identified & ER dashboard developed

Implement non-traditional risk sensing requirements at the BU level

Develop project management tools, resilience in job descriptions & enterprise plan

Operationalize business unit & site governance expectations

Formal lessons learned process & regular drills, tabletop exercises

Stakeholder management efforts refined and supported

ER metrics refined and enhanced

2019

2020



The enterprise resilience function should provide oversight and quality assurance on risk ownership and mitigation

Rationale for resilience as an enterprise function

Certain strategic risks require the "risk owner" to be focused at the enterprise level

- Provides a comprehensive understanding of context and external drivers
- Recognizes that mitigation and responses to certain risks cross multiple functions
- Enables establishing a common, enterprise-wide acceptable level of risk

Highly interconnected enterprise creates "weakest link" vulnerabilities and blind spots, which require continuous analysis

- Analyzes dependencies and interdependencies across the entire NYPA, customer, partner, third party ecosystem
- Challenges assumptions and biases and infuses healthy paranoia
- Connects the dots between different functions
- Leverages case studies and lessons learned

Resilience needs to be **embedded in every project**; a dedicated effort is
required to make this a **cultural norm**

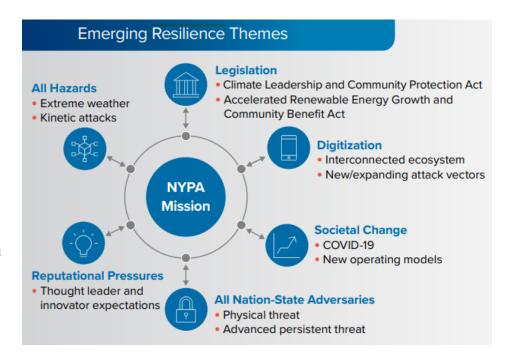
- Examines what will stand in the way of success and ensures it is well understood across the enterprise
- Leverages ERM risk quantification
- Holds stakeholders to an established standard
- Maintains indicators and warnings
- Educates and drives awareness



Alignment to strategy

Vision2030 and Resilience

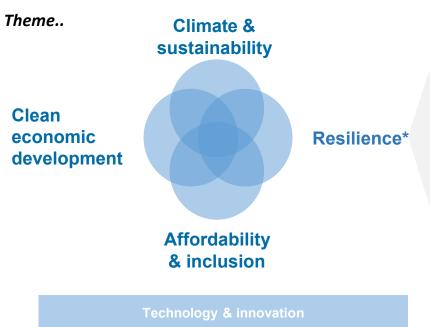
- Resilience is the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions.
- Resilience includes the ability to withstand and recover from deliberate attacks, accidents or naturally occurring threats or incidents. Any disruption could threaten our ability to achieve our mission.
- NYPA is accelerating the adoption of an enterprise-wide resilience strategy to prepare for a more distributed and uncertain operating environment, one with constantly evolving threats.





VISION2030 provides a new opportunity to focus, elevate and accelerate the adoption of resilience across the NYPA ecosystem

Resilience is appropriately a strategic theme in VISION2030



Enterprise resilience	Imbedding resilience concepts into NYPA's DNA so it is prepared for and thrives in an uncertain future
Stakeholder resilience	Helping other grid operators and our customers prepare for success in an uncertain future
Reliability and security	Doing our part to ensure a secure, stable and responsive grid



Where is NYPA going?

Resiliency is a muscle memory we need to exercise continuously on an ongoing basis. When there's an internal or external shock that comes into our enterprise, we can recalibrate very quickly and redirect the organization to our North Star. It needs to be part of our DNA and pervasive across the organization and individuals that are part of our team.

VISION2030

- · Resilience is embedded across and throughout the enterprise
 - Resilience is both strategic and tactical, bottom-up and top-down
 - Workforce acceptance and understanding of resilience and its importance



- 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

Business Continuity Planning

Traditional Service Catalog

Cyber Security

Insider Security

Supply Chain Security

Workforce Resilience

Extreme Weather

Expanded Service Catalog

- Business Unit Resilience Champions partner with Resilience to drive the entire portfolio forward
 - Resiliency concepts are operationalized
 - Personnel take accountability for questioning and mitigating "what if" scenarios

Q&A

