



NY Power
Authority | Canal
Corporation

6th Annual, Thermal-Mechanical-Chemical Energy Storage Workshop

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Agenda

- New York Power Authority
- Expanded Authority
- CLCPA
- NYPA's Commercial Projects
- R&D's Energy Storage Projects
 - Ongoing, Planned and Projects under Consideration

New York Power Authority

Mission - to lead the transition to a carbon-free, economically vibrant New York through customer partnerships, innovative energy solutions, and the responsible supply of affordable, clean and reliable electricity

New York Power Authority (NYPA)

About Us

Workforce

2,560 total employees

2,077 NYPA employees

483 Canals employees

Customers & Communities

1,091 power and energy services customers

38.8 million+ MWh electricity sold

26.4 million MWh electricity generated (net)

Assets

16 generating facilities

1,460 circuit-miles of transmission lines

100K+ acres of owned or managed land and water

524 miles of Canal waterways

150 miles of the Empire State Trail

Financial Figures

\$4.0 billion operating revenue

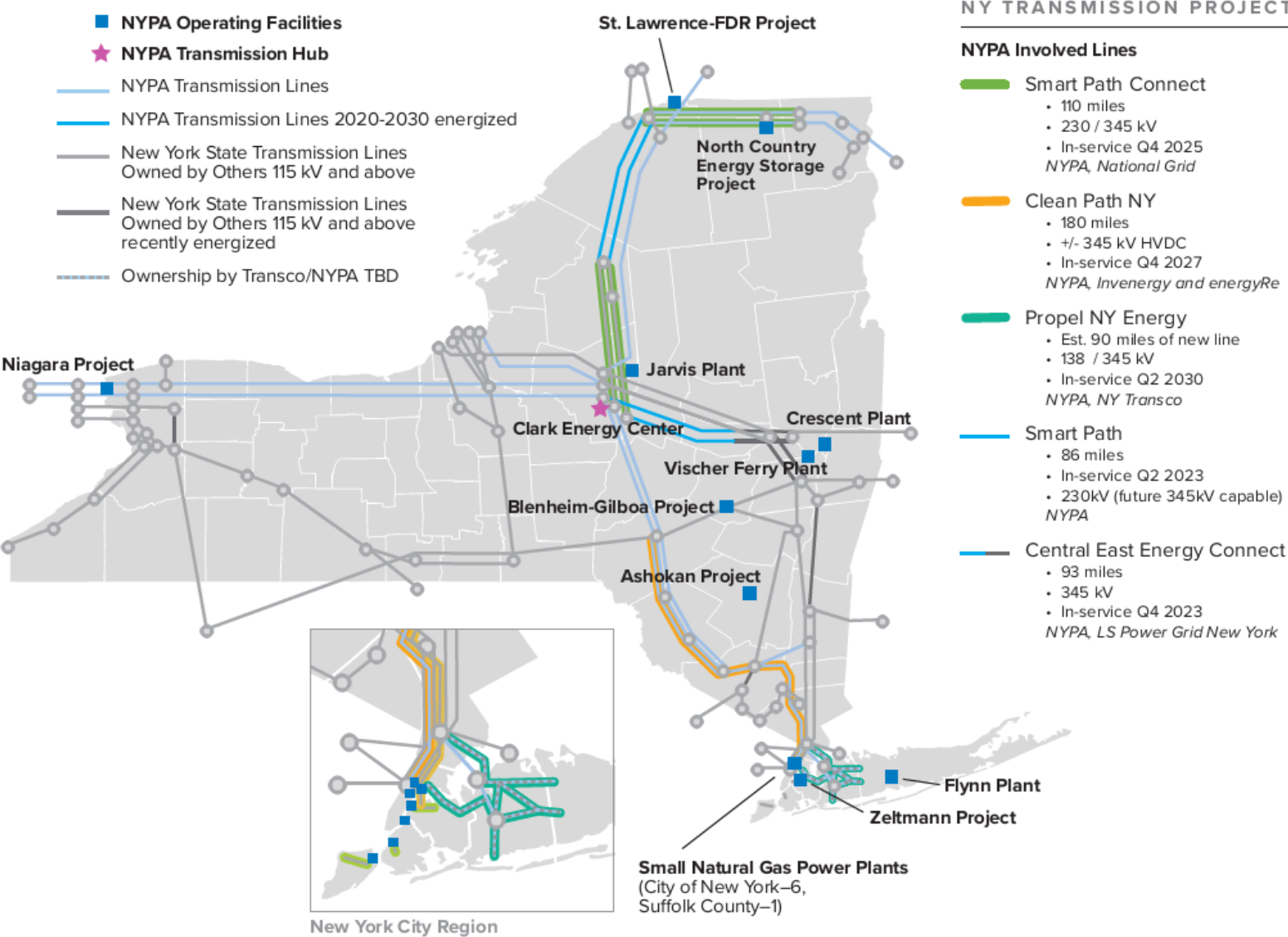
\$9.6 billion total assets



New York Power Authority

- Established by the NY State Legislature in 1931.
- Largest state public electric utility in the United States
- Wholesale power supplier throughout New York State and neighboring states as required by law
- Provides, with generation and power purchases, about 25% of New York State's electricity. No Distribution System
- 2021 Net Generation: 3.9 million Megawatt hours (MWh) Transmission lines: 1,500+ circuit miles; 115kV, 230kV, 345kV & 765kV
- Footprint = ISO = State
- Non-profit energy corporation, does not use tax revenues or state credits, finances projects through bond sales and cash from operations
- Model for TVA and BPA

NYPA's service area aligns with the NYISO and New York State



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Generating
Facilities

1,100

Power & Energy
Services
Customers

o Large and small
businesses

o Not-for-profit
organizations

o Community-owned
electric systems

o Rural electric
cooperatives

o Government entities

1,550

Circuit-Miles of
Transmission
Lines. – 1/3 of NY's
backbone

6,000+ MW

low-cost fleet

84%

of generation is
renewable (hydro)

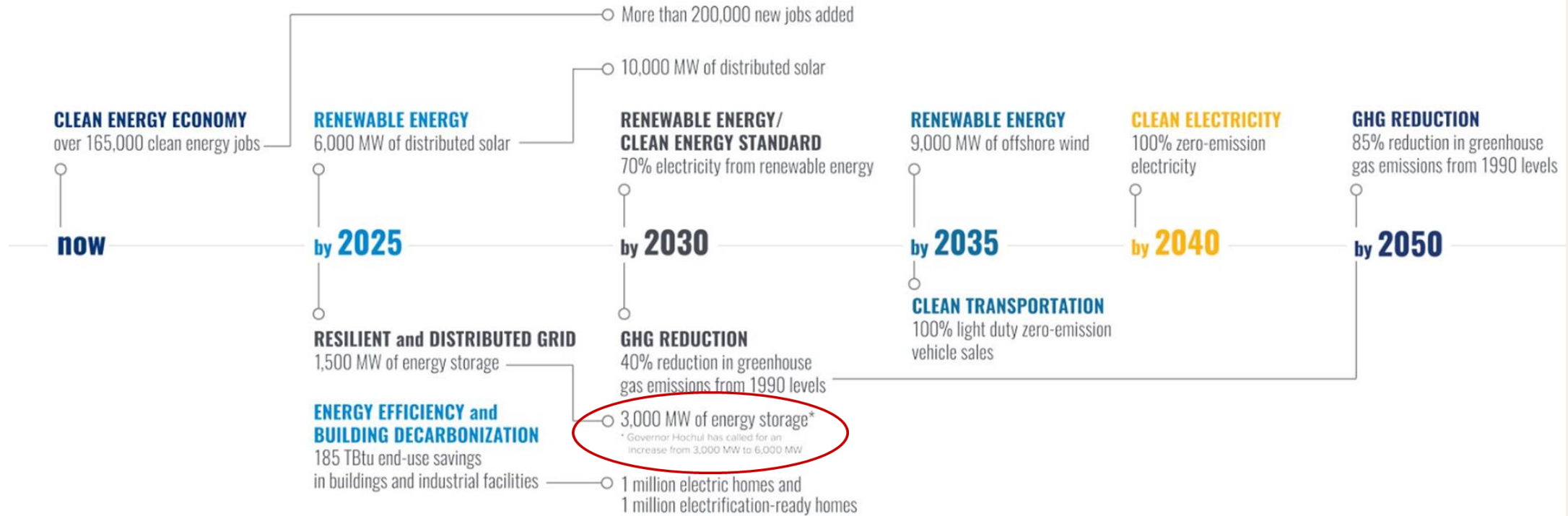


New York Power Authority Expanded Authority

In 2023, New York State Legislature gave NYPA expanded authority to advance renewable energy and support other state priorities. This expanded authority provides for:

- **Renewable Generation** – Plan, design, finance and operate renewable energy generating projects, which can include solar, wind and battery storage
- **REACH** - Provide for the creation of the Renewable Energy Access and Community Help (REACH) program to provide bill credits for low- and moderate-income ratepayers served by New York's investor-owned utilities.
- **Workforce Training** - received authority to make available up to \$25 million annually for training workers for employment

New York Power Authority NYS Nation-Leading Climate Targets



Commercial Energy Storage Projects

- Commercial Projects
 - 20MW / 20MWh utility scale energy storage project located upstate. Project was placed into service in 2023.

R&D's Energy Storage Projects

- On-Going Projects
 - High Temperature Storage based CHP Demonstration (450kW / 400kWh; thermal)
 - Novel 50kW / 250 kWh Lithium-ion Battery Storage Demonstration
 - Zinc-Air Energy Storage Demonstration (100kW / 1MWh)
 - Flywheel based Fast EV Charger R&D Demonstration (100kW/25kWh)
- Planned Projects
 - Rechargeable Zinc Alkaline Long Duration Energy Storage Demonstration (two 600kW / 12 hours)
- Projects under Consideration
 - Single Use Aluminum-Air Emergency Generation

Proposed changes to New York's Energy Storage Rules

- Require independent peer reviews for all BESS installations exceeding energy capacity thresholds established for lithium-ion batteries;
- Require qualified personnel to be available to arrive on scene within four hours to provide support to local emergency responders in the event of a BESS fire.
- Removing the Fire Code exemption for BESS projects owned or operated by electrical utilities to ensure that all projects comply with the Fire Code.
- Require every BESS facility be equipped with an Emergency Response Plan (ERP) and requiring site-specific training for local fire.
- Require all BESS installations to monitor fire detection systems.
- Mandate regular industry-funded special inspections for BESS installations.



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Thank You