

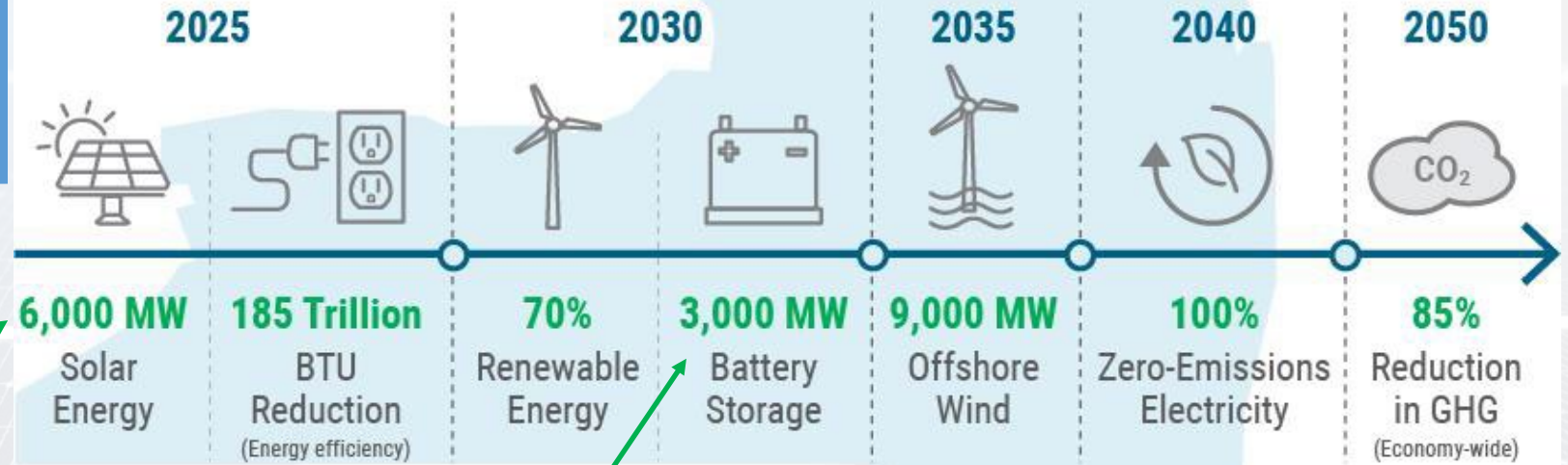
Meeting the CLCPA

Tim McClive, Director

Central Hudson Energy Policy & Regulation

Climate Leadership & Community Protection Act

CLCPA by the numbers



Target updated to 10 GW in 2022
Capacity at 12/22 is 3.6 GW (AC)

Target updated to 6 GW in 2022

Since then – a sampling of new laws and Orders

Accelerated Renewable Energy Growth and Community Benefit Act (2020):

- **New Permitting Processes**, Major Renewable Energy Development Program
- **Build Ready Program**, Clean Energy Development and Incentive Program
- **Transmission**, State Power Grid Study, Program to Achieve CLCPA Targets, & Article VII improvements (Case 20-E-0197)

Case 20-E-0428 CH Rate Order (2021)

- **Incentives**, efficiency and environmentally beneficial electrification

Case 20-G-0131 Gas Planning Order (2020)

- **Anticipates downsized gas system**, depreciation studies, long-term gas plans

Case 22-E-0149 Implementing CLCPA (2022)

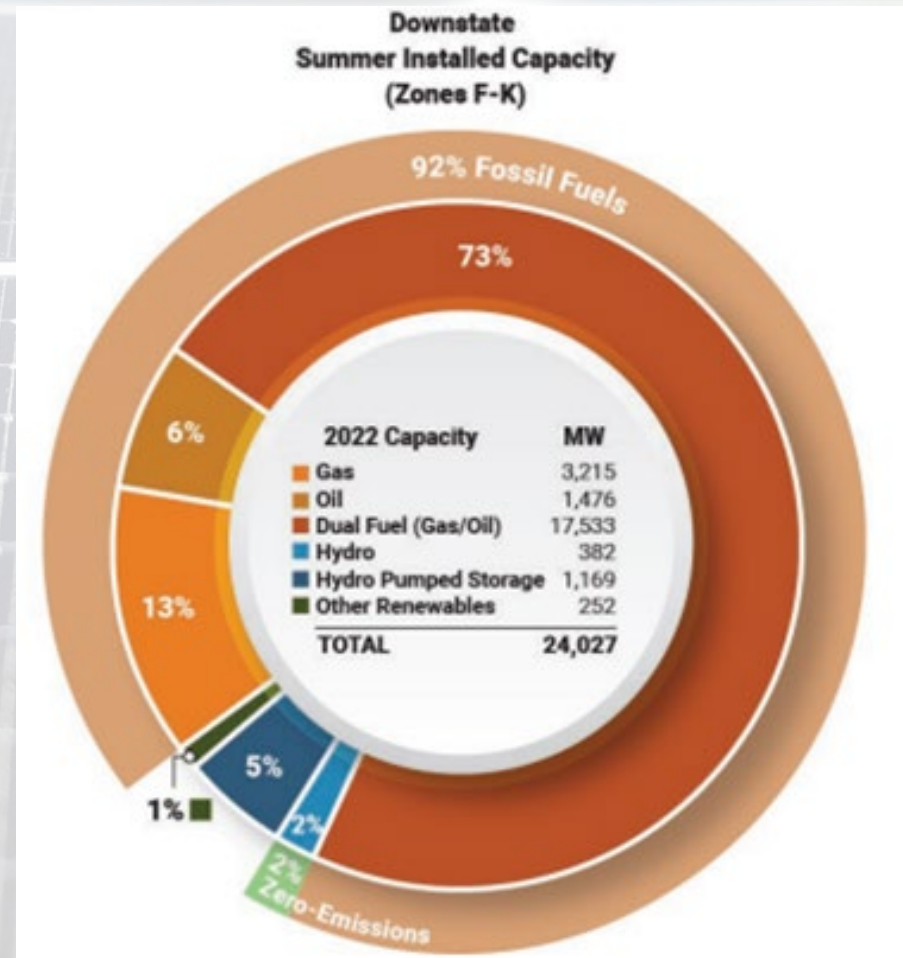
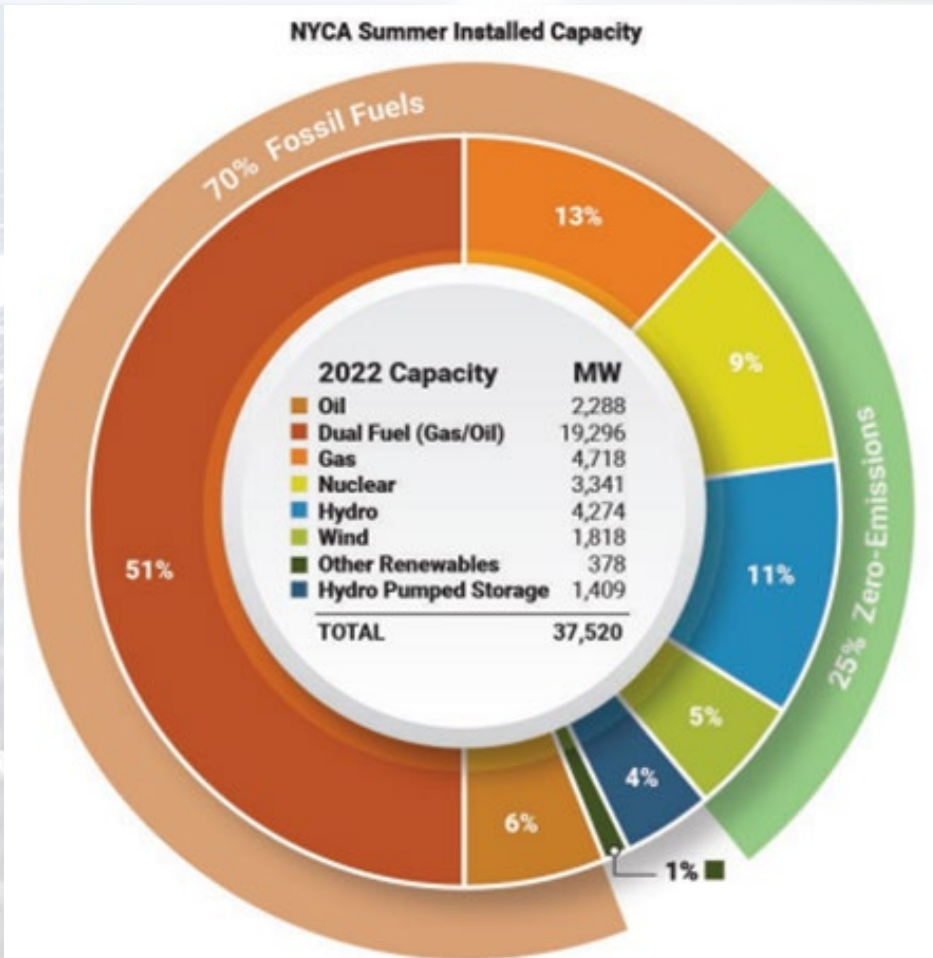
- **Multiple issues**, GHG inventory, utility ownership of renewables, multi-utility gas GHG reduction pathway study

Utility Thermal Energy Networks and Jobs Act (2022)

- **Geothermal pilots**, studying a site in Poughkeepsie

Climate Action Council Scoping Plan – Feasibility

Replacement of fossil-fired plant will be difficult



Climate Action Council Scoping Plan – Feasibility

The electrification goals are ambitious. For example,

- all new LDVs sold in NYS to be zero-emission by 2035, and all MDVs by 2045
- no gas/oil heating and water heating systems in new home construction after 2025
- by 2030, most new purchases for space and water heating should be heat pumps, with 1-2 million homes and 10-20% of commercial space using them by 2030
- rapid escalation of ZEV charging infrastructure, with customer-friendly rate structures
- cap-and-invest market program to tax emissions from fossil-based uses and divert those funds to R&D and subsidies

What is Central Hudson Doing?



PLANNING FOR
RENEWABLES &
STORAGE



INVESTING IN THE
GRID



INTERCONNECTION
IMPROVEMENTS



ENERGY EFFICIENCY
PROGRAMS



HEAT PUMP &
ELECTRIC VEHICLE
PROGRAM



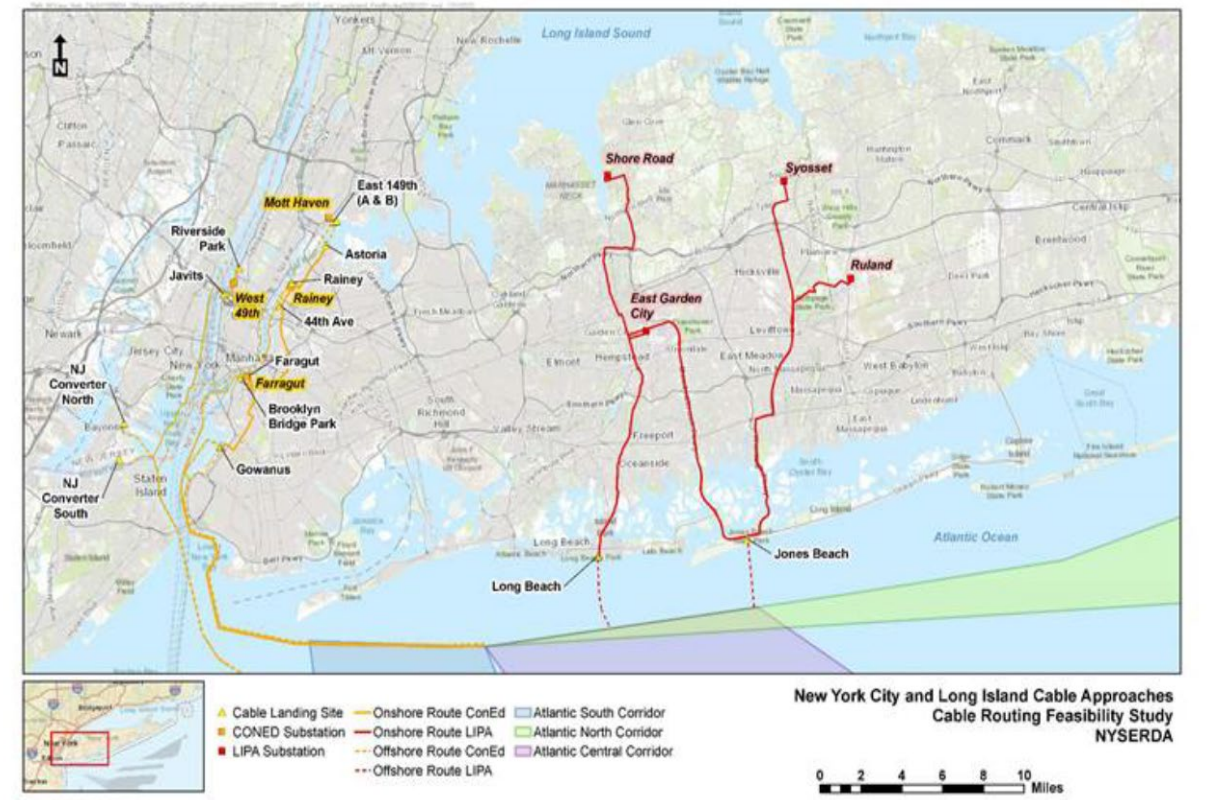
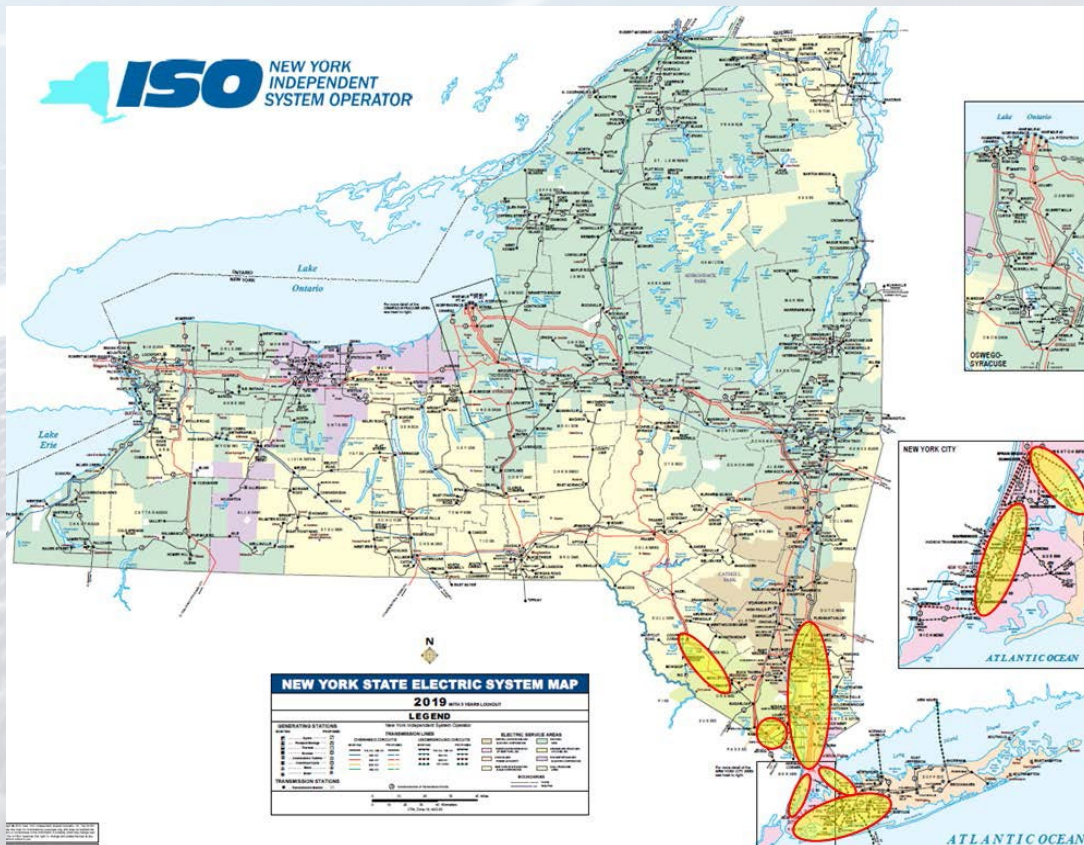
GAS GHG
REDUCTIONS
PATHWAY



Planning for Renewables & Storage

- Working with the NYISO, NYSERDA, and Staff to Study the Electric System
 - Loads adjusted for Energy Efficiency, Heating, and Electric Vehicles.
 - Identifying what is needed to meet the CLCPA goals
 - Bulk and Local T&D studies completed to identify potential areas of need & solutions
 - Establishment of CGPP

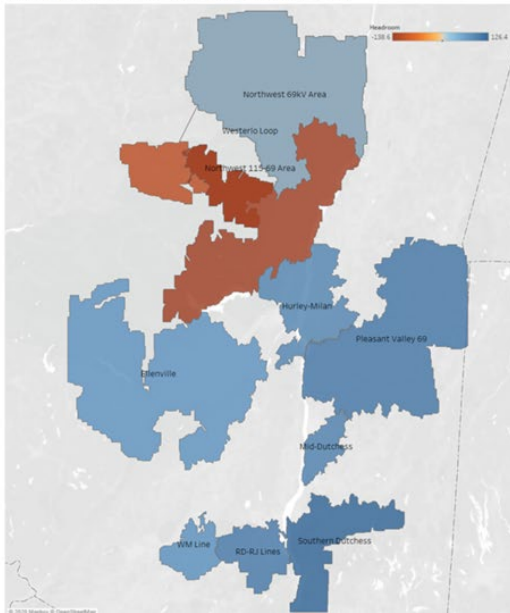
Bulk Transmission Work



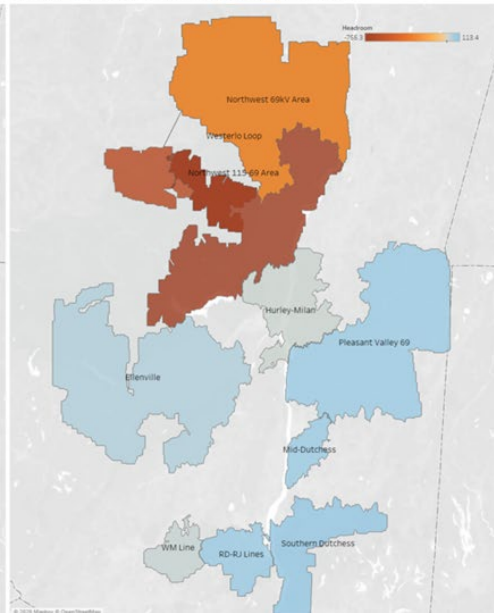
Local Transmission Work

Transmission Area Headroom

Headroom for Generation (Min Net Load) in 2030: Scenario 1 (% of LTE)

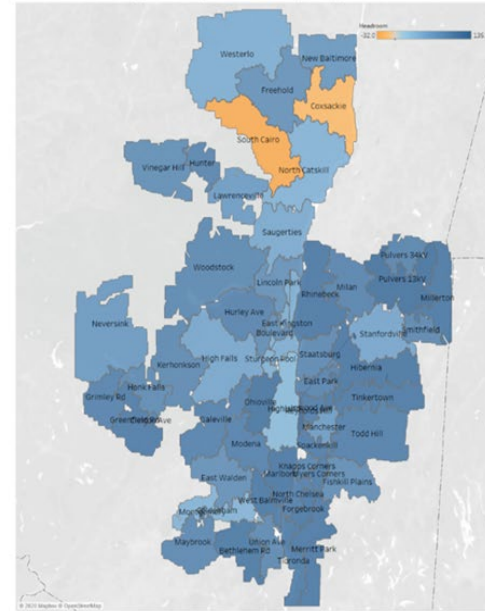


Headroom for Generation (Min Net Load) in 2030: Scenario 3 (% of LTE)

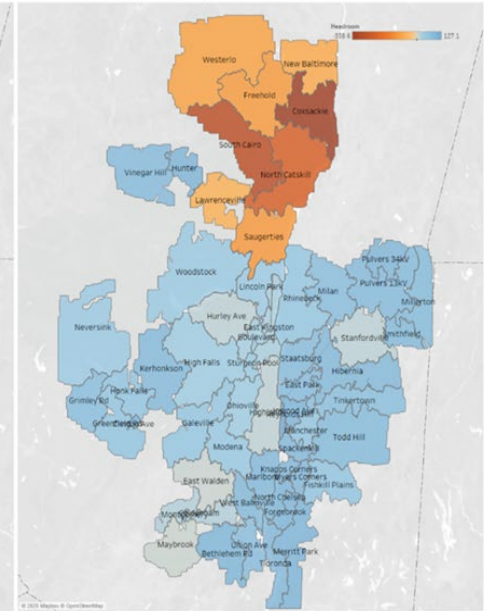


Distribution Area Headroom

Headroom for Generation (Min Net Load) in 2030: Scenario 1 (% of LTE)



Headroom for Generation (Min Net Load) in 2030: Scenario 3 (% of LTE)



Investing in the Grid

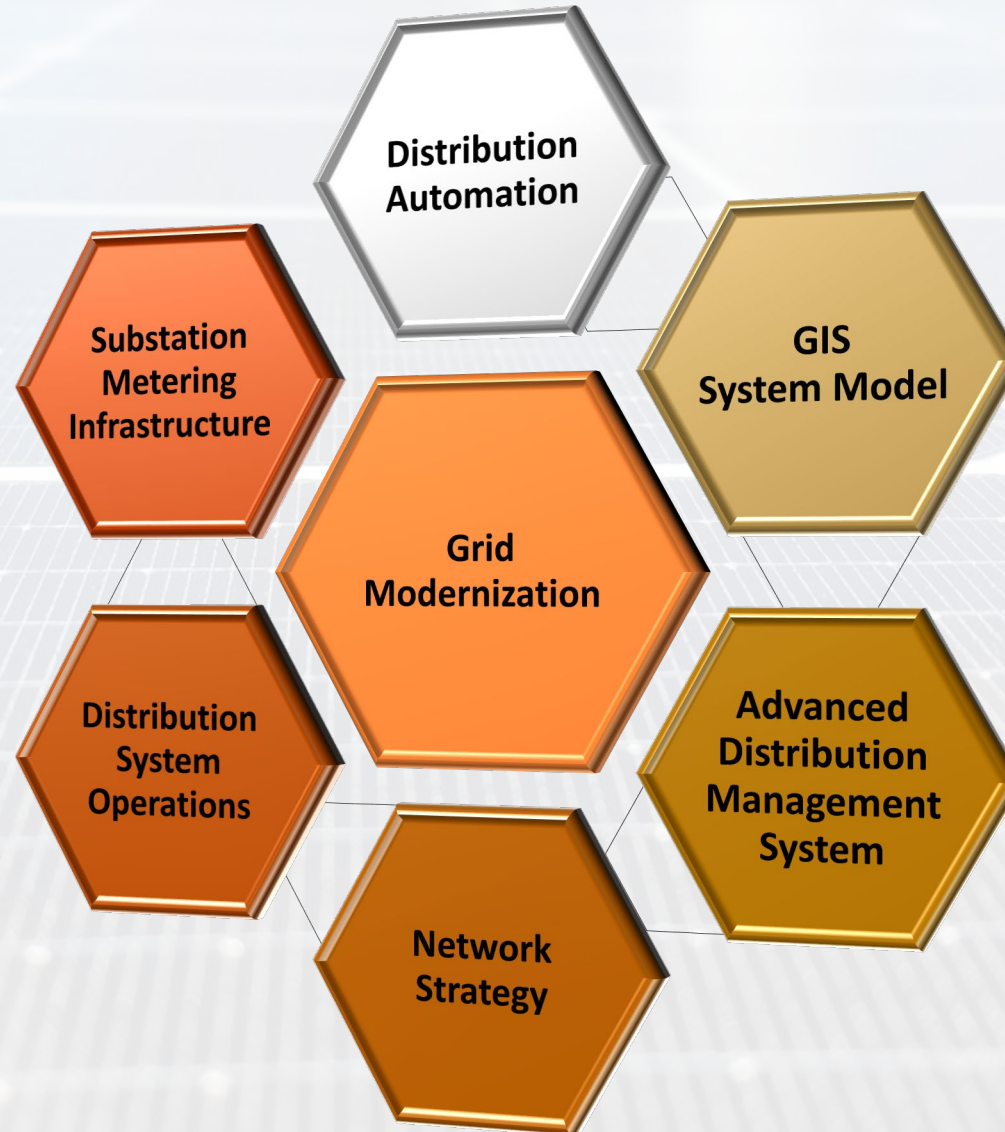
Capital Infrastructure Projects

- **Phase 1 – Multi Value Projects that also provide headroom**
 - **Copper Wire Replacement**
 - **Operating/Infrastructure Programs**
 - **Grid Modernization Program**
 - **Voltage Conversion Projects**
- **Phase 2 – Aimed at increasing renewable headroom**
 - **NC Line Rebuild approved to be completed by 2029**

Enhanced Monitoring and Control

Battery Storage

Grid Modernization

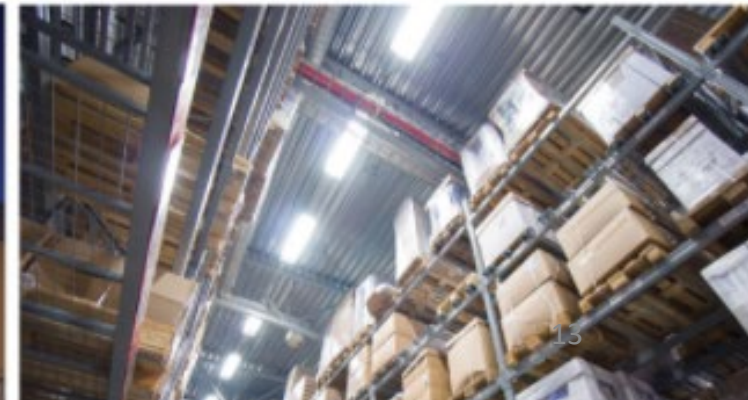


Interconnection Improvements

- Interconnection delays are a hurdle
 - Applications for wind, solar, and storage have accelerated rapidly, creating delays and business challenges for developers
- Central Hudson is also affected by this
 - More Staff to process applications, perform studies, and commissioning.
 - Cost Sharing and Financing Proposals to improve development.
 - Hosting capacity map improvements and data sharing.

Energy Efficiency Programs

- The most cost-effective way to reduce carbon and protect the environment.
- A full selection of products and programs for households and businesses.



Heat Pump and Electric Vehicles

- **NYS Clean Heat Program**
 - 13,600 Heat Pumps installed since 2020
 - ~6,000 projected units annually through from 2023-2025
 - ~\$4,000 average Clean Heat Rebate for Air Source Heat Pumps
 - ~\$9,100 average Clean Heat Rebate for Ground Source Heat Pumps
 - \$1,000 Heat Pump Water Heater Rebate
 - Added rebates for full legacy fossil fuel system displacement
- **EV Make Ready Program**
 - Currently more than 15,000 EVs in the Valley
 - ~7,500 in Central Hudson territory
 - Projected to triple in the next few years
 - In addition, we are part of two major highway corridors
 - Public Chargers to relieve range anxiety

Gas Proceedings

PSC Orders and CAC recommendations include

- Conversion of building stock from gas/oil/propane to electric
- Ban on using fossil fuels in new residential and commercial buildings starting in 2026
- Thermal pilot to explore geothermal loops for buildings
- Change in focus on long-term planning to emphasize feasibility and pathway to wean NY of reliance on gas

Where to Find More Information

- Central Hudson Website
- Accelerated Renewable Energy Growth and Community Benefit Act at NYSERDA
- Central Hudson's 2020 DSIP filing
- Joint Utilities of New York
- Climate Action Council Website

