

**The State Energy Planning Board  
Meeting will begin at 2:00 pm**



Energy Planning  
Board

# State Energy Planning Board Meeting

March 3, 2025

# Welcome and Roll Call

# Agenda

1. Opening remarks from the Chair
2. Review minutes of December 12, 2024 Board Meeting
3. Consider and act upon the adoption of the Scope
4. Discuss investments in New York's infrastructure
5. Discuss the planned approach for techno-economic pathways analysis
6. Other Business

# Opening Remarks

**Doreen M. Harris**

***President & CEO, NYSERDA***

***State Energy Planning Board Chair***



# 2024 in Review

## Announced \$200M in Utility Bill Relief



## Launched the Upstate NY Energy Storage Engine



## U.S.'s 1<sup>st</sup> Utility-Scale Offshore Wind Farm



## Invested in Clean Tech Manufacturing with FAST NY



## Hosted the Future Energy Economy Summit



## Federal Updates

- New York anticipates working closely with federal agencies on shared priorities
- Alignment with many of the U.S. DOE's stated priorities, such as:
  - Innovation
  - Affordability
  - Strengthening the grid
  - Streamlining permitting
  - Advancing the deployment of nuclear energy
- Highly dynamic situation as the White House makes changes to align with new priorities



## 2025 State of the State

Gov. Hochul's address focused on "fighting for your family" – with themes of affordability and a safe, healthy future

### Key announcements include:

1. **\$1 Billion in Clean Energy and Climate Funding**
2. **Advanced Nuclear Energy Master Plan and Related Initiatives**
3. **NY Cap and Invest Greenhouse Gas Reporting Rule**

View the full list of announcements in the [SOTS Book](#)





# 1. Clean Energy and Climate Funding

**The Sustainable Future Program allocates \$1 billion in funding to support projects such as:**

- Reducing greenhouse gas emissions and pollution
- Decarbonizing and retrofitting buildings
- Creating and utilizing renewable energy
- Advancing clean transportation initiatives
- Building, repairing, and maintaining thermal energy networks
- Designing, constructing, or improving green infrastructure

## 2. Advanced Nuclear Energy



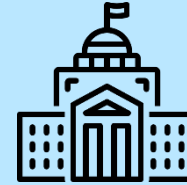
### Master Plan

NYS will produce a Master Plan for Responsible Advanced Nuclear Development



### Multi-State Action

NYS is co-leading a multi-state initiative to accelerate advanced nuclear projects



### Federal Application

NYSERDA is supporting Constellation's application for Nine Mile Point planning

## 3. New York Cap and Invest

### Program includes three rulemakings

1. Mandatory Greenhouse Gas Reporting rule (DEC)
  2. Cap-and-Invest rule (DEC)
  3. Auction rule (NYSERDA)
- Also includes Climate Investment Account framework

### Latest updates

- SOTS address announced that Mandatory Greenhouse Gas Reporting rule is proceeding over the coming months
  - Regulatory Proposal will be followed by: Formal Comment Period/Hearings → Assessment of Comments → Final Regulations → Mandatory Reporting begins
- We are continuing analysis, engagement, and public input on the Cap-and-Invest and Auction rules and the Climate Investment Account framework

## FY 2026 Executive Budget

### Key energy and climate budget actions include:

- **\$1B** in clean energy and climate funding for Sustainable Future Program (announced in SOTS)
- **\$300M** for Promote Opportunity with Electric Readiness for Underdeveloped Properties (POWER UP) to fund proactive electric capacity development
- **\$100M** round of FAST NY to prioritize semiconductor manufacturing, supply chain, cleantech, and green economy projects
- **\$50M** in additional funding to decarbonize state agency facilities
- **\$50M** in flexible funding for the Rapid Response Home Repair Program (disaster response) and Resilient Retrofits Program (proactive measures)



## Other Energy and Climate Updates



Climate Justice  
Working Group  
updates NYS  
Disadvantaged  
Communities criteria



New York, California,  
and Massachusetts  
partner on energy  
innovation  
opportunities



PSC approved the  
implementation plan  
for the retail and  
residential energy  
storage program



# **Review Minutes of the December 12, 2024 Meeting of the Board**

# **Scope: Review of Public Comments and Revisions**

## Comments Received on the Draft Scope

In September 2024, the Energy Planning Board released for public comment a Draft Scope for the New York State Energy Plan.

Through December 16, 2024, the Board received 86 comments from organizations and 93 unique comments from individuals. Members of three organizations submitted common comments that generated 250, 409, and 1,082 letters, respectively. Organizations self-identified with the organization types below.

**Non-Profit, Advocacy, and/or  
Community Organization**

**46**

**Government / Authority**

**14**

**Trade Association**

**10**

**Business**

**7**

**Utility**

**3**

**Other**

**6**

Key themes from the comments and responsive Scope revisions are noted in the slides that follow. View comments at:

[commentmanagement.com/comment/list/State-Energy-Plan-Draft-Scope-Outreach](https://commentmanagement.com/comment/list/State-Energy-Plan-Draft-Scope-Outreach)

# Topic Areas in the Scope

## I. Overview of the Energy System

## II. Climate Change, Adaptation, & Resiliency

## III. Climate Justice & Environmental Justice

## IV. Clean Energy Jobs & A Just Transition

## V. Clean Energy Innovation & Econ. Development

### VI. Electricity

*Demand, Supply, Reliability*  
*Renewables*  
*Storage & Flexible Resources*

### VII. Nuclear

### VIII. Fossil Fuels

*Natural Gas*  
*Petroleum*

### IX. Alternative Fuels

### X. Buildings & Industry

### XI. Transportation

### XII. Smart Growth

### XIII. Emergency Preparedness & Security

### XIV. Assessment of Impacts of the Plan

*Economic Development Impacts*  
*Health Impacts*  
*Environmental Impacts*  
*Energy Affordability Impacts*  
*Cross-sector Pathways Analysis*

### XV. Local, Regional, and Federal Collaboration

## **Reliability of New York State energy systems is widely valued.**

- I. Overview of the Energy System: Added text to the Scope to indicate that the Plan will provide an overview of the ability for New York State's energy supply and delivery systems to meet forecast energy demand.

## **The effects of climate change are costly and worsening; climate mitigation, adaptation, and resiliency are needed.**

- II. Climate Change, Adaptation, and Resiliency: Added text to the Scope to specify consideration of the role of local governments in associated actions.
- Recommended actions will be considered in developing the draft Plan.

## **Emergency preparedness and planning covers multiple hazards.**

- XIII. Emergency Preparedness: Added text to the Scope to expand on factors that affect preparedness (all-hazards preparedness, attention to communities).



## **Support for careful attention to environmental and climate justice, including the impacts on and benefits to Disadvantaged Communities.**

- III. Environmental Justice and Climate Justice: Text edits made to the Scope to consistently reference Disadvantaged Communities (DACs) and to note that the Plan will describe the metrics and methods used to measure the benefits of the investments in clean energy and energy efficiency and related co-benefits that accrue to DACs.

## **Recommendations to advance equity span multiple Scope topic areas.**

- In III. and relevant topic areas: Added text to the Scope to capture breadth of considerations, incl. community outreach, education, and involvement; air quality and public health; local benefits from clean energy projects; Minority and Women-Owned Business Enterprise (MWBE) participation; and housing affordability.
- Recommended actions will be considered in developing the draft Plan.

## **Support for workforce analysis and development, with priority on workers impacted by the energy transition and from Disadvantaged Communities.**

- IV. Clean Energy Jobs and a Just Transition: Added text to the Scope to specify consideration of impacts on utility and energy infrastructure workers.

## **Support for in-state economic development and competitiveness as an important energy planning objective.**

- V. Innovation and Economic Development: Added to the Scope consideration of MWBE participation as well as the growth of strategic energy-intensive industries and strategies to affordably meet and manage associated energy demands.
- For topics IV., V., and across topic areas, recommended actions will be considered in developing the draft Plan.

## **Reliability of the electricity system is widely valued.**

- VI. Electricity: Added greater detail to the Scope regarding consideration of transmission and distribution system infrastructure, dispatchable emission-free resources, impacts of demand-side resources, and extreme weather risks.

## **Renewable generation and energy storage see challenges & opportunities.**

- VI. Electricity: Added to the Scope consideration of grid interconnection standards for bidirectional resources, energy storage as a transmission asset, and federal incentives for and federal, state, and local coordination on clean energy projects.

## **Reliability of the gas system is widely valued. Differing views on the longer-term footprint and role of the gas system.**

- VIII. Natural Gas: Specified in the Scope that gas system constraints will be examined within NYS and upstream/interstate and added consideration of opportunities to integrate electric and gas planning, ratepayer impacts, rate design, and cost recovery.

## **Differing views on nuclear energy.**

- VII. Nuclear: Added text to the Scope on additional potential applications for advanced nuclear technologies, emergency planning considerations, and the cost of nuclear waste management.

## **Differing views on alternative fuels.**

- IX. Alternative Fuels: Added to the Scope consideration of synthetic fuel products and localized or cumulative impacts in Disadvantaged Communities.

## **Considerations for the electrification of transportation and smart growth.**

- XI. Transportation: Added to the Scope consideration of transportation-related grid planning, resiliency in extreme weather, rate design, and affordability impacts.
- XII. Smart Growth: Added to the Scope consideration of redevelopment.

## **Support for energy efficiency and demand management in buildings and industry. For housing, energy affordability and equity are focal points.**

- X. Buildings and Industry. Added to the Scope consideration of building and energy codes, actions associated with the gas system transition, rate design, and neighborhood-scale strategies to decarbonize buildings and manage demand.
- Specified in the Scope attention to preserving and supporting housing affordability.

## **Attention to costs and energy affordability are important.**

- XIV. Assessment of Impacts of the Plan: The Scope includes assessment of energy affordability impacts. Added text to indicate that the Plan will include an analysis of scenarios by which New York might advance its clean energy and climate goals.



# Resolution 13

## Adoption of Scope

**RESOLVED**, that the members of the State Energy Planning Board hereby approve the adoption of the Final Scope for the 2024 State Energy Plan, as presented at the Board's March 3, 2025 meeting, inclusive of any changes proposed which received a majority vote for approval by the board members during the course of the meeting, together with any non-substantive, editorial changes made at the discretion of the Chair, deemed necessary or appropriate.

# **Presentations: Investments in New York's Infrastructure**

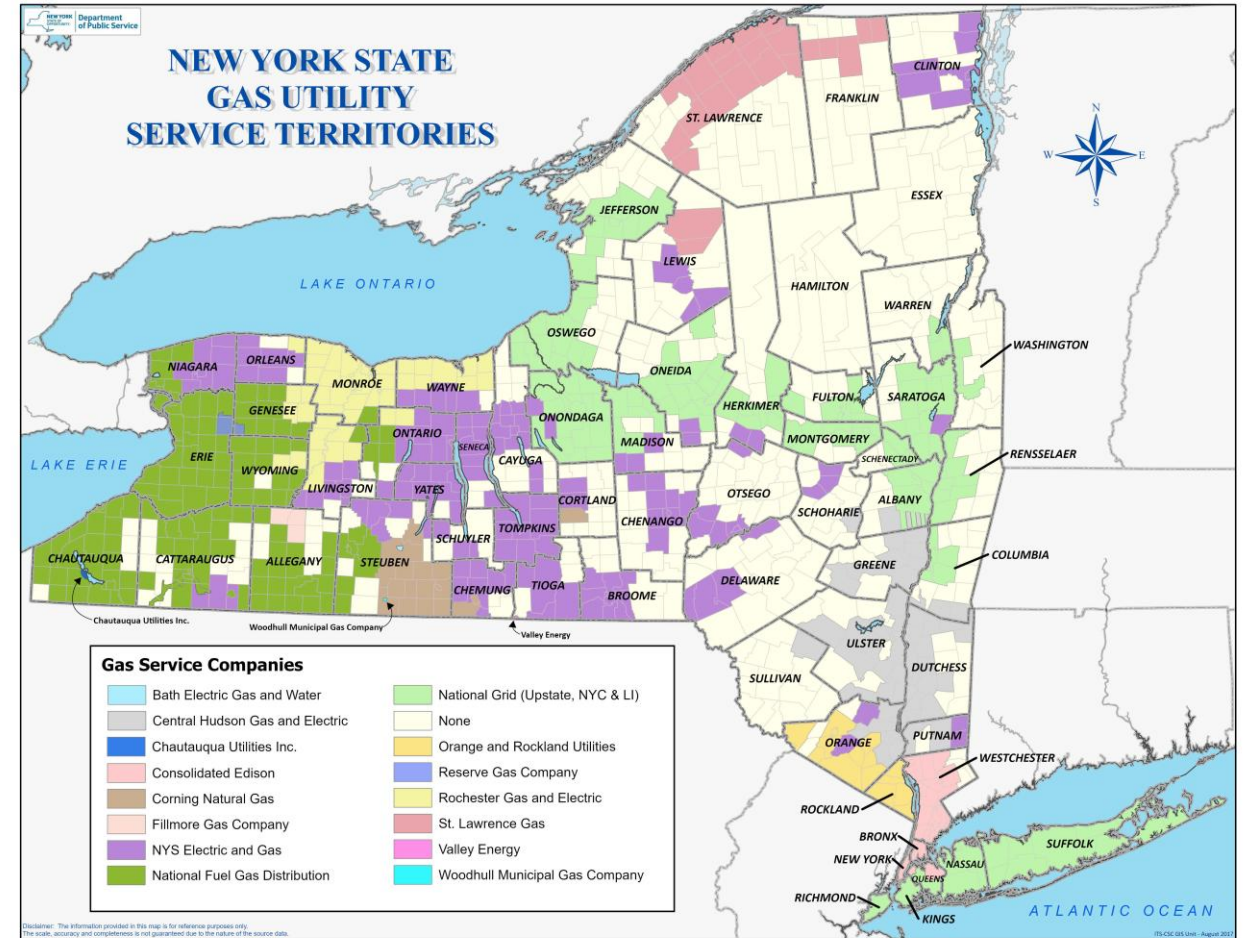
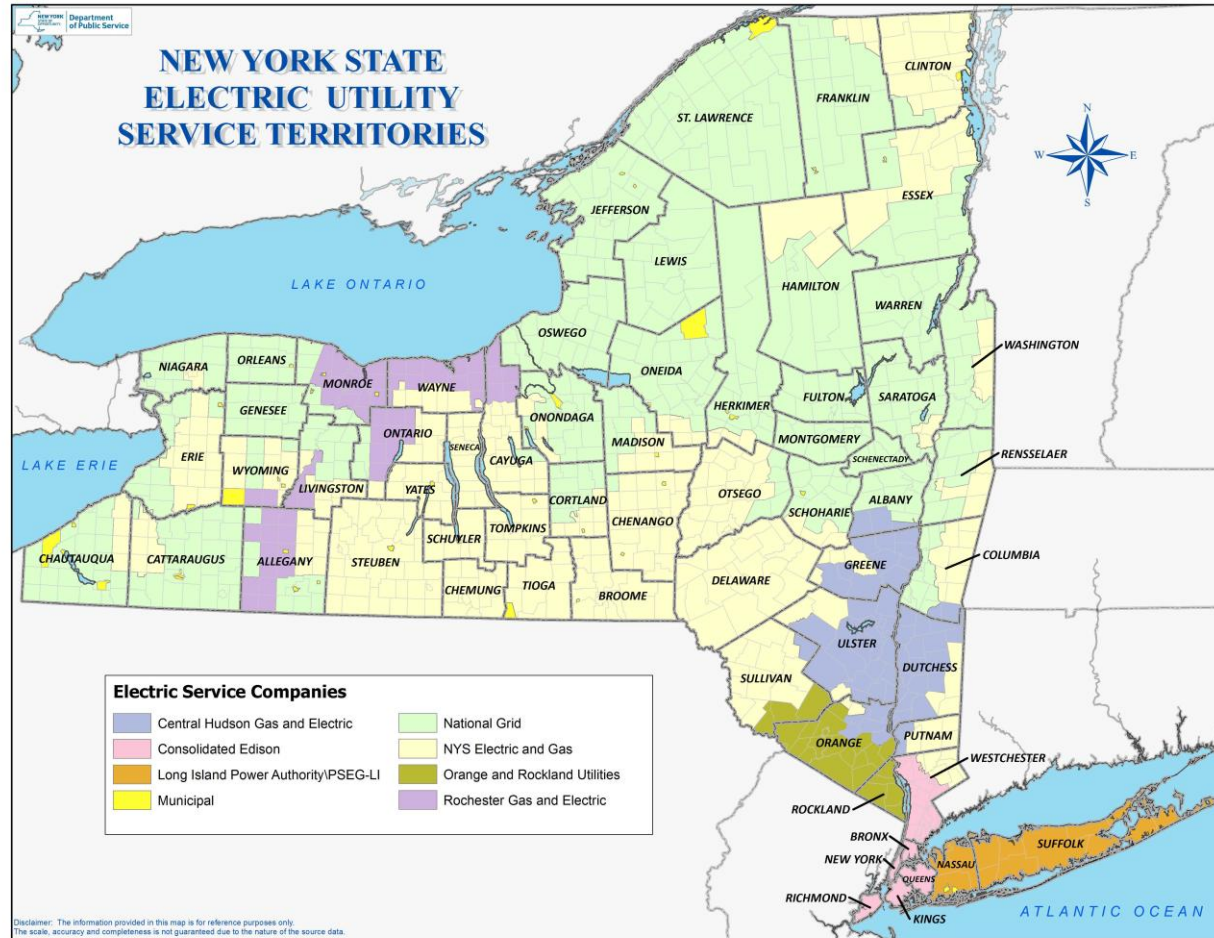


Public Service  
Commission

# Electric and Natural Gas Utilities' Energy Infrastructure

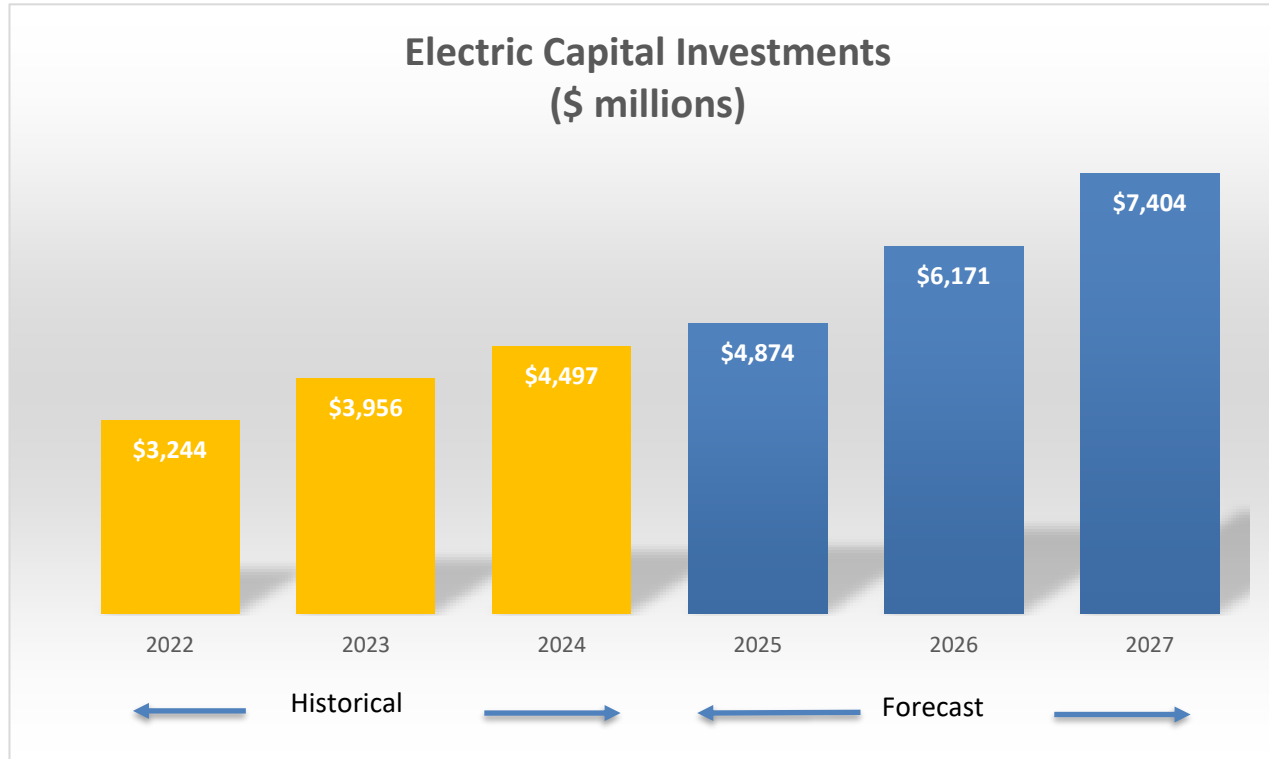
**Aric Rider, Deputy Director, NYS Department of Public Service  
Office of Energy System Planning and Performance  
March 3, 2025**

# Electric and Natural Gas Service Territories

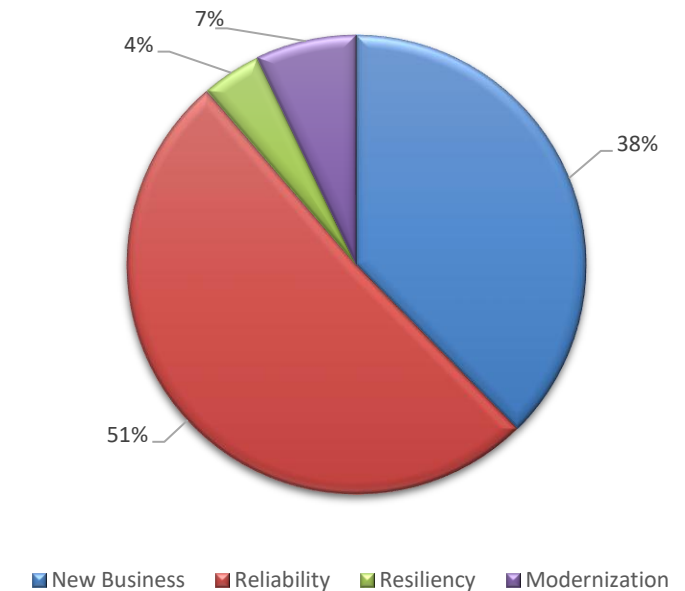




# Electric Investments



**2024 Electric Investment Categories**



Note: Forecasts are utility proposals and have not been approved by the Public Service Commission.

# Electric System Asset Ages





Transmission Structures		
Electric Utility	Depreciation Life (Yrs)	Percentage of Asset Counts 70+ yrs
Central Hudson	80	98.4%
Con Edison	65	0.3%
National Grid	75	61.0%
NYSEG	75	19.6%
Orange and Rockland	70	70.3%
RG&E	60	4.4%

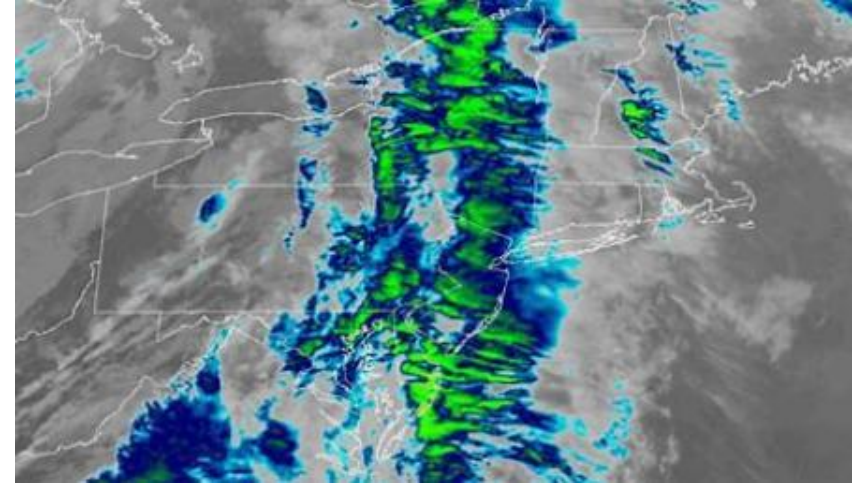
Distribution Underground Structures		
Electric Utility	Depreciation Life (Yrs)	Percentage of Asset Counts 70+ yrs
Con Edison	80	57.5%



# Electric Resiliency Plans

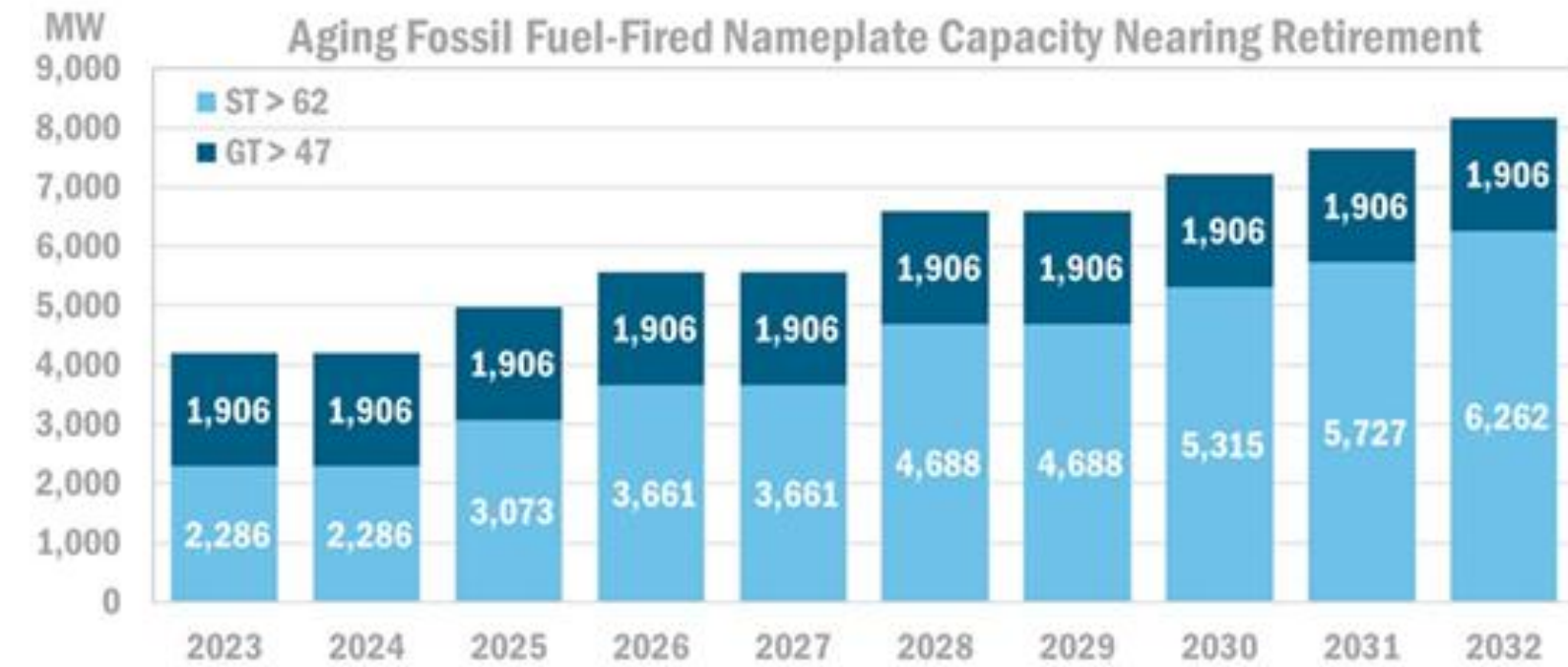
- Studies/Plans (1) address climate change resilience (not system resiliency as a whole) and (2) include changes to design guidelines or standards.
- Highest risks are extreme heat, flooding, and wind/ice vulnerabilities.

ASSET GROUP	High Temperature 	Inland Flooding 	High Winds 	Ice 
Transmission Line	✓		✓	✓
Distribution Line	✓		✓	✓
Substation	✓	✓		



# Aging Fossil Fuel Capacity

Figure 43: Aging Fossil Fuel Capacity

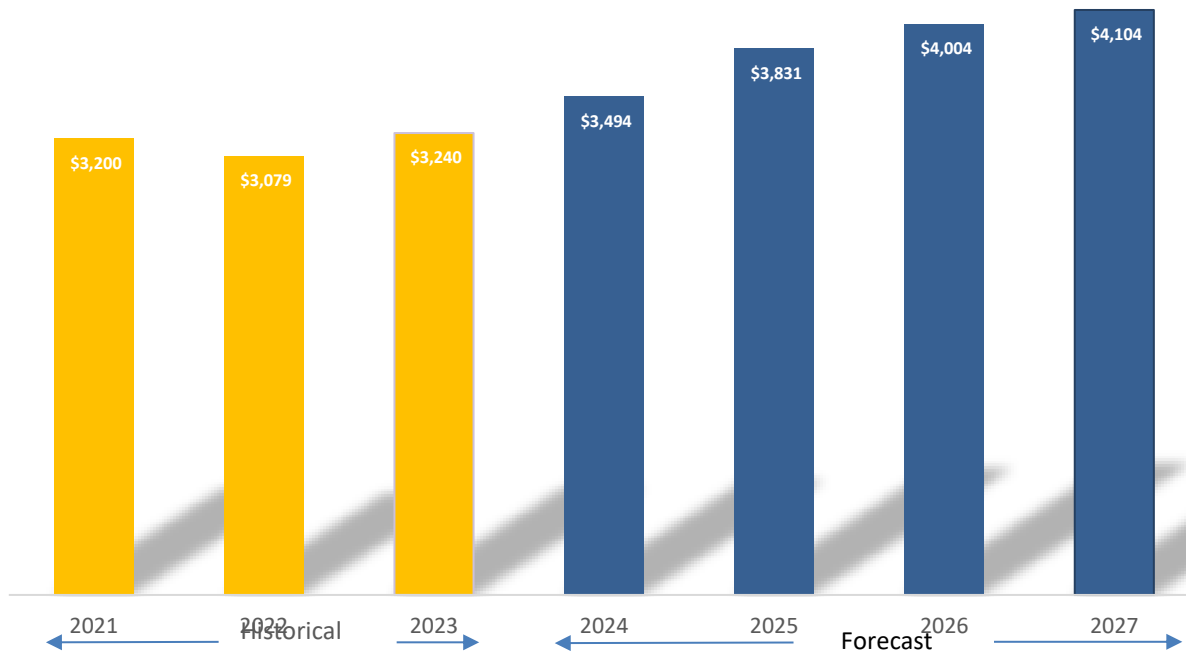


Aging Fossil Fuel Capacity - 2028	6,500 MW
Total Fossil Fuel Capacity - 2024	25,299 MW
	26%
Total Summer Capacity - 2024	37,375 MW
	17%

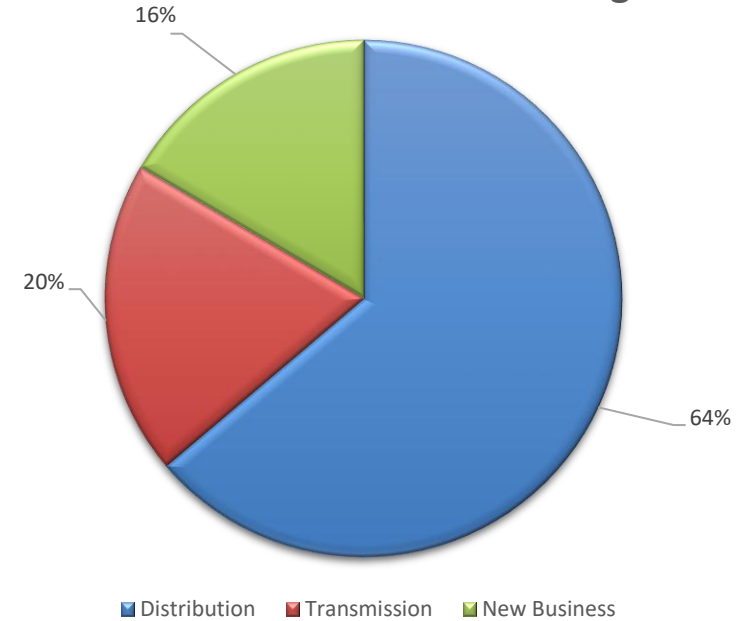
Sources: The NYISO’s 2024 Reliability Needs Assessment report and 2024 Gold Book.

# Natural Gas Investments

Natural Gas Capital Investments  
(\$ millions)



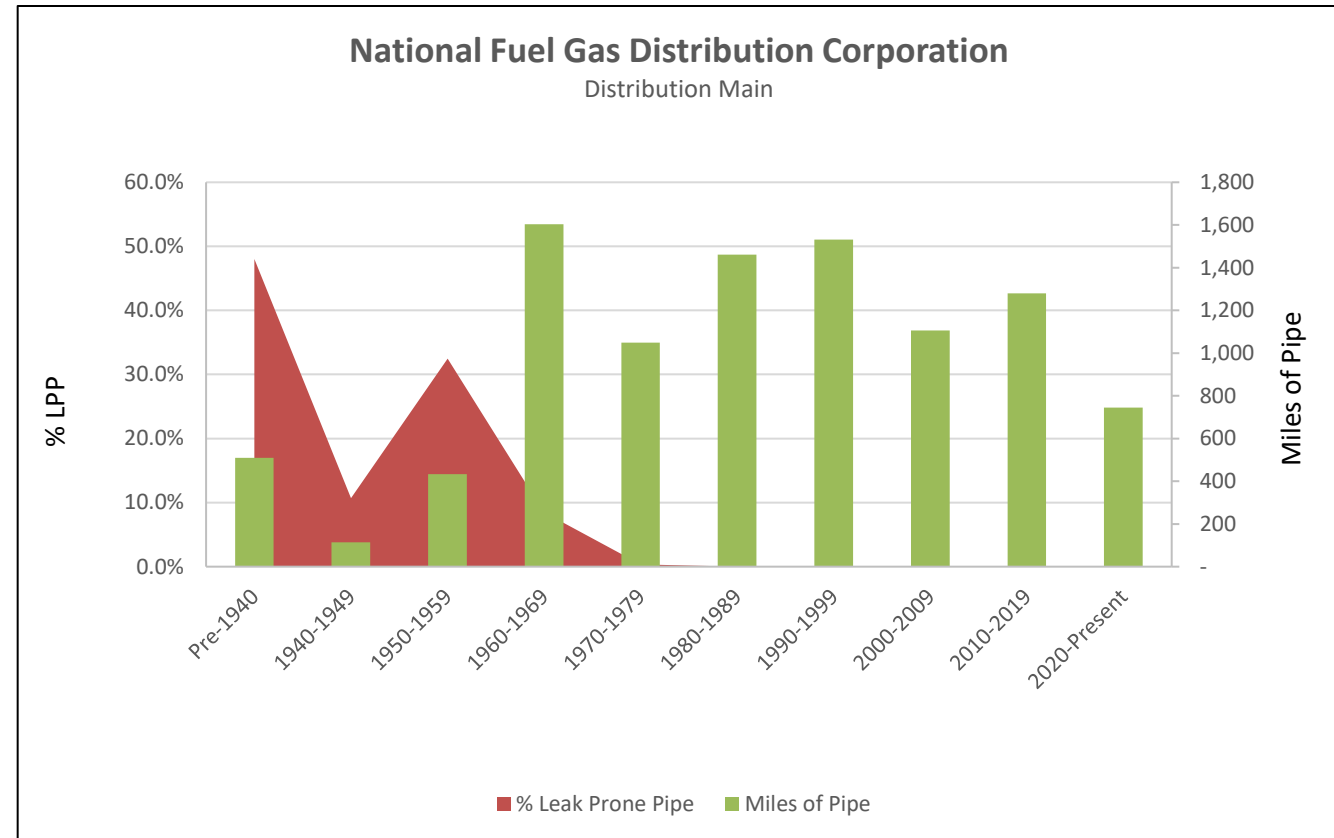
2023 Natural Gas Investment Categories



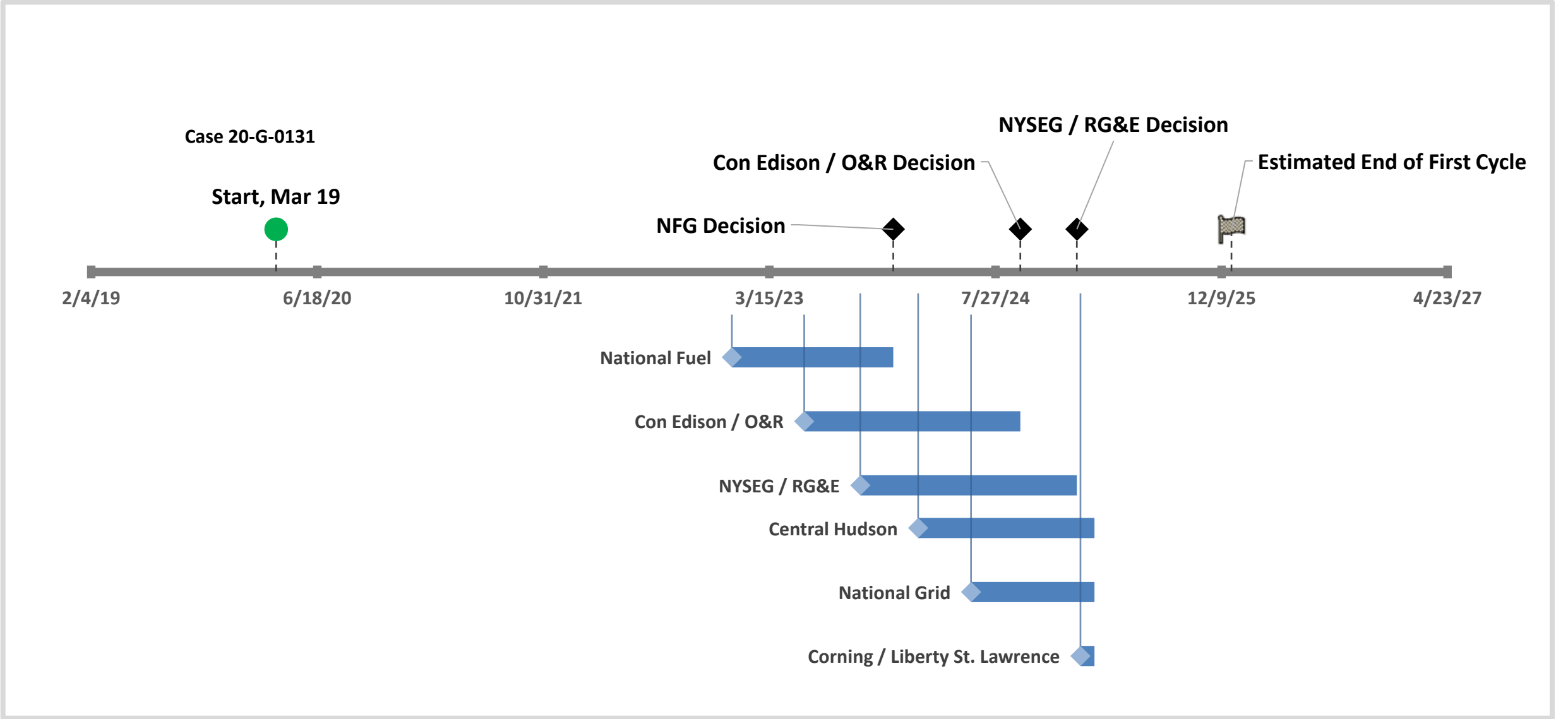
Note: Forecasts are utility proposals and have not been approved by the Public Service Commission.

# Natural Gas System Asset Ages

- 96% of Con Edison's cast iron distribution mains are greater than 70 years old with the average age of 117 years and 50% of its steel mains are greater than 70 years old.
- 23% of KEDNY's distribution mains were installed before 1940.
- Most of NMPC, KEDNY, and KEDLI's transmission mains were installed in the 1950s.
- NFG has distribution pipe in service installed in 1876.



# Natural Gas Planning Proceeding





# The impacts of climate change on our energy system

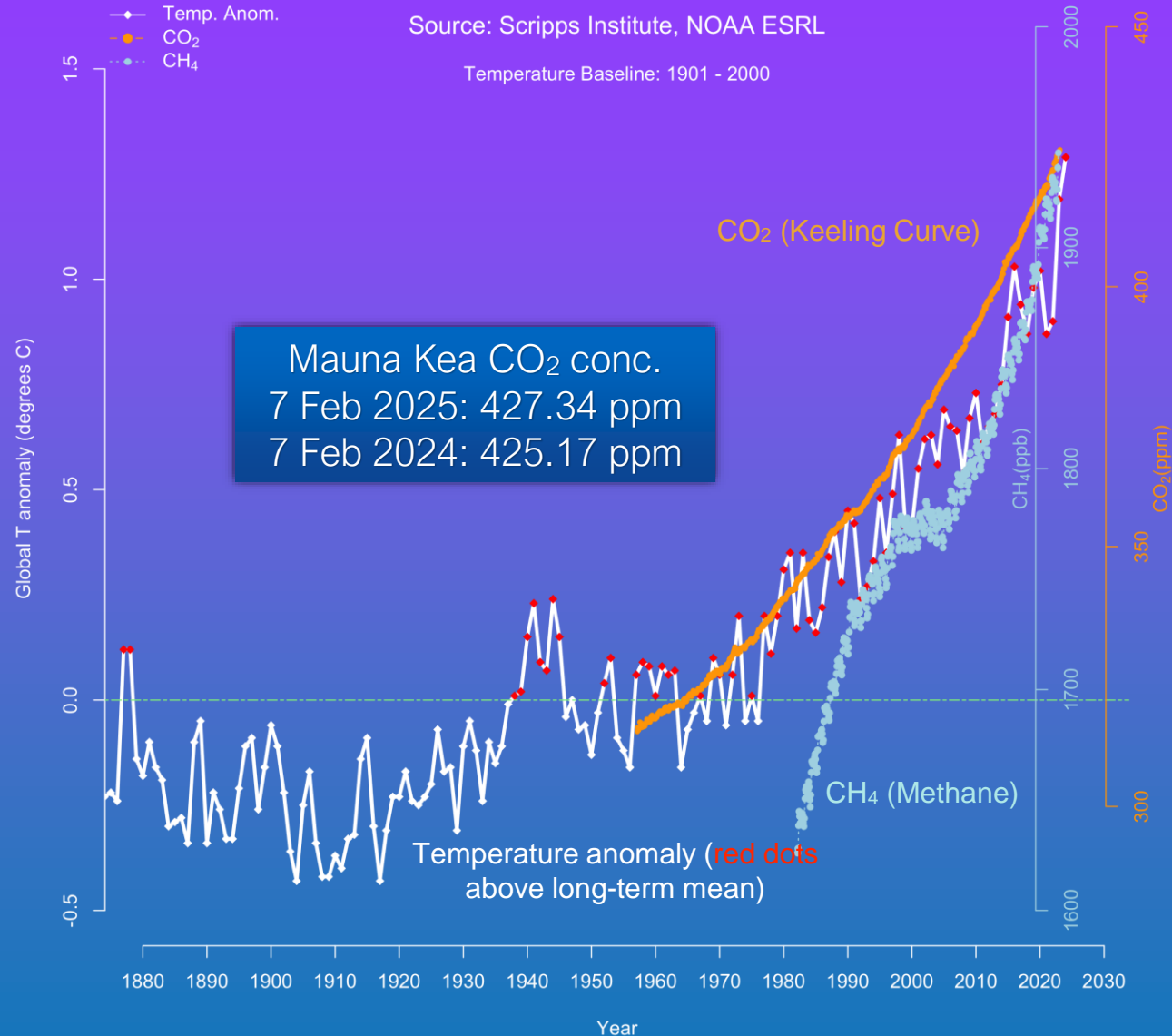
**Jeff Freedman, Research Faculty  
University at Albany  
Atmospheric Sciences Research Center**

*Based in part upon the “New York State Climate Impacts Assessment”*

*Sponsored by the New York State Energy Research and Development Authority*

*Sandra Meier, Peter J. Marcotullio, Peter Carney, Susanne DesRoches, Jeff Freedman, Marueen Golan, Justin Gundlach, Jordi Parisian, Peter Sheehan, William V. Slade, Lemir Teronb, Ke Wei, and Amanda Stevens*

# New York Climate Impacts Assessment—Energy



DOI: 10.1111/nyas.15191

## TECHNICAL REPORT

**ANNALS** OF THE NEW YORK  
ACADEMY OF SCIENCES



## New York State Climate Impacts Assessment Chapter 06: Energy

**Sandra Meier<sup>1</sup> | Peter J. Marcotullio<sup>2</sup> | Peter Carney<sup>3</sup> | Susanne DesRoches<sup>4</sup> |**  
**Jeff Freedman<sup>5</sup> | Maureen Golan<sup>6</sup> | Justin Gundlach<sup>7</sup> | Jordi Parisian<sup>6</sup> |**  
**Peter Sheehan<sup>7</sup> | William V. Slade<sup>8</sup> | Lemir Teron<sup>9</sup> | Ke Wei<sup>4</sup> | Amanda Stevens<sup>4</sup>**

<sup>1</sup>Environmental Energy Alliance of New York, Albany, New York, USA

<sup>2</sup>Department of Geography and Environmental Science, Hunter College, New York, New York, USA

<sup>3</sup>New York Independent System Operator (Ret.), Hague, New York, USA

<sup>4</sup>New York State Energy Research and Development Authority, Albany, New York, USA

<sup>5</sup>Atmospheric Sciences Research Center, University at Albany, Albany, New York, USA

<sup>6</sup>New York Power Authority, White Plains, New York, USA

<sup>7</sup>New York State Department of Public Service, Albany, New York, USA

<sup>8</sup>Environment, Health and Safety, Consolidated Edison Company of New York, New York, New York, USA

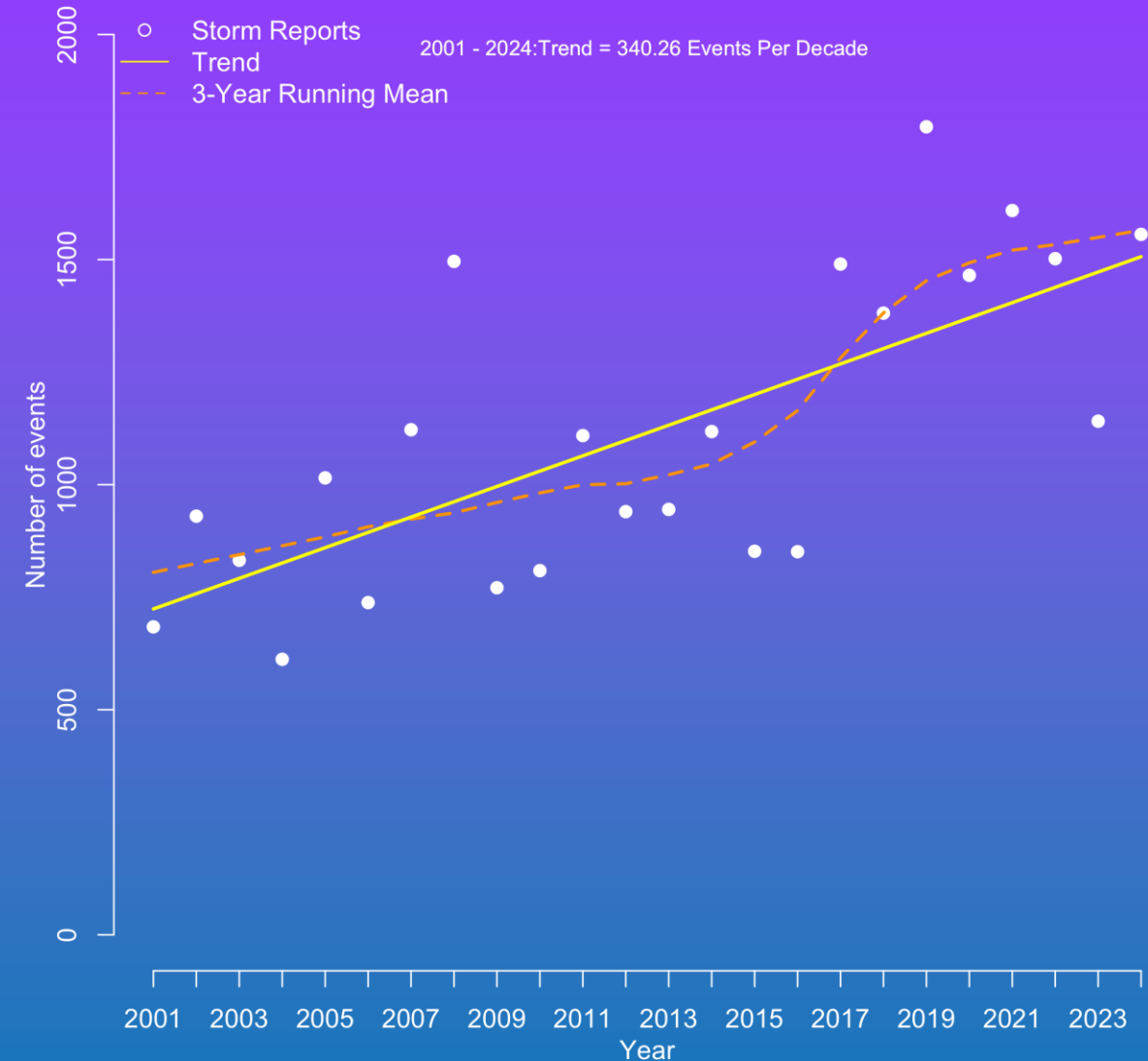
<sup>9</sup>Department of Earth, Environment and Equity, Howard University, Washington, District of Columbia, USA

# New York Climate Impacts Assessment—Energy

## All Storm Events in New York, 2001 - 2024

### Key Findings:

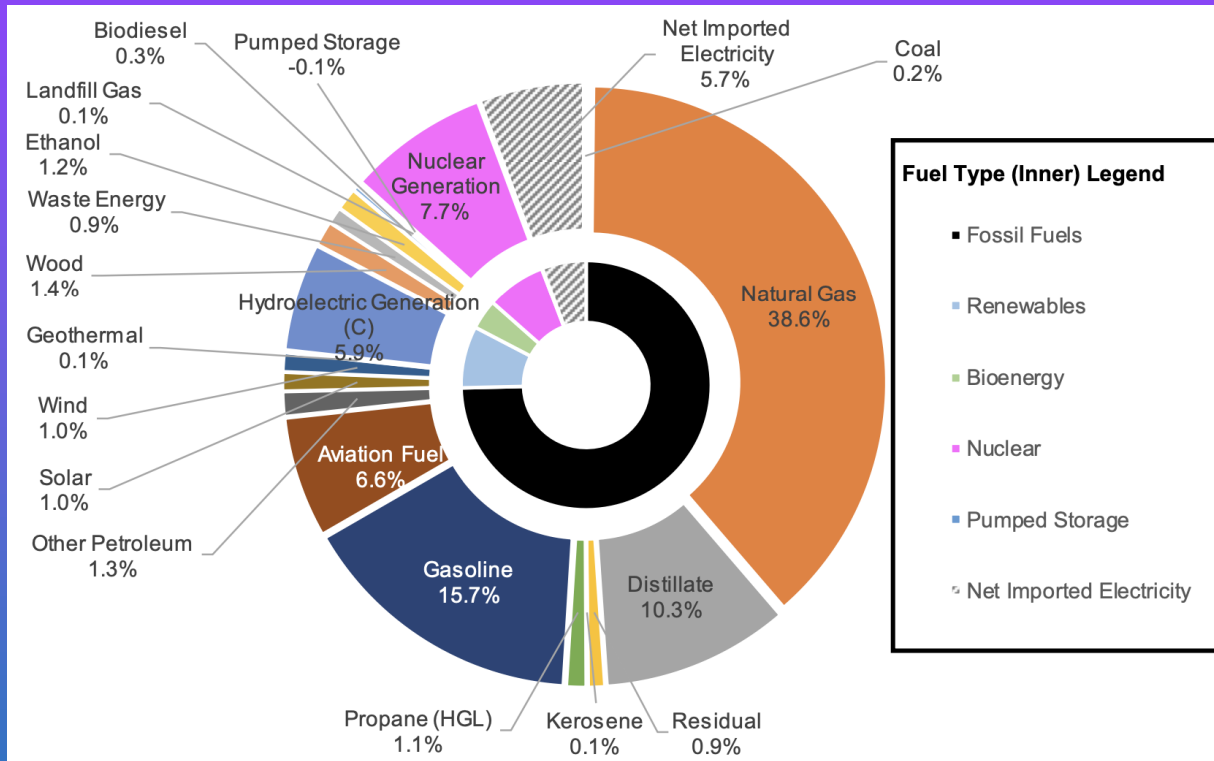
1. Climate change is already **constraining some sources of energy supply and stressing transmission and distribution infrastructure** through extreme heat, changes in precipitation, and increasing storm intensity;
2. **Patterns of energy demand are shifting** due to climate change and are expected to continue evolving over the coming decades;
3. As New York State's energy system becomes more electrified and more reliant on emission-free electricity supply sources, **new approaches will be needed to adapt to climate change and ensure the system is flexible, safe, resilient, and cost-effective;** and
4. Climate change **could result in unequal impacts across communities due to existing inequalities and burdens** in New York State's energy system, especially as the system evolves.



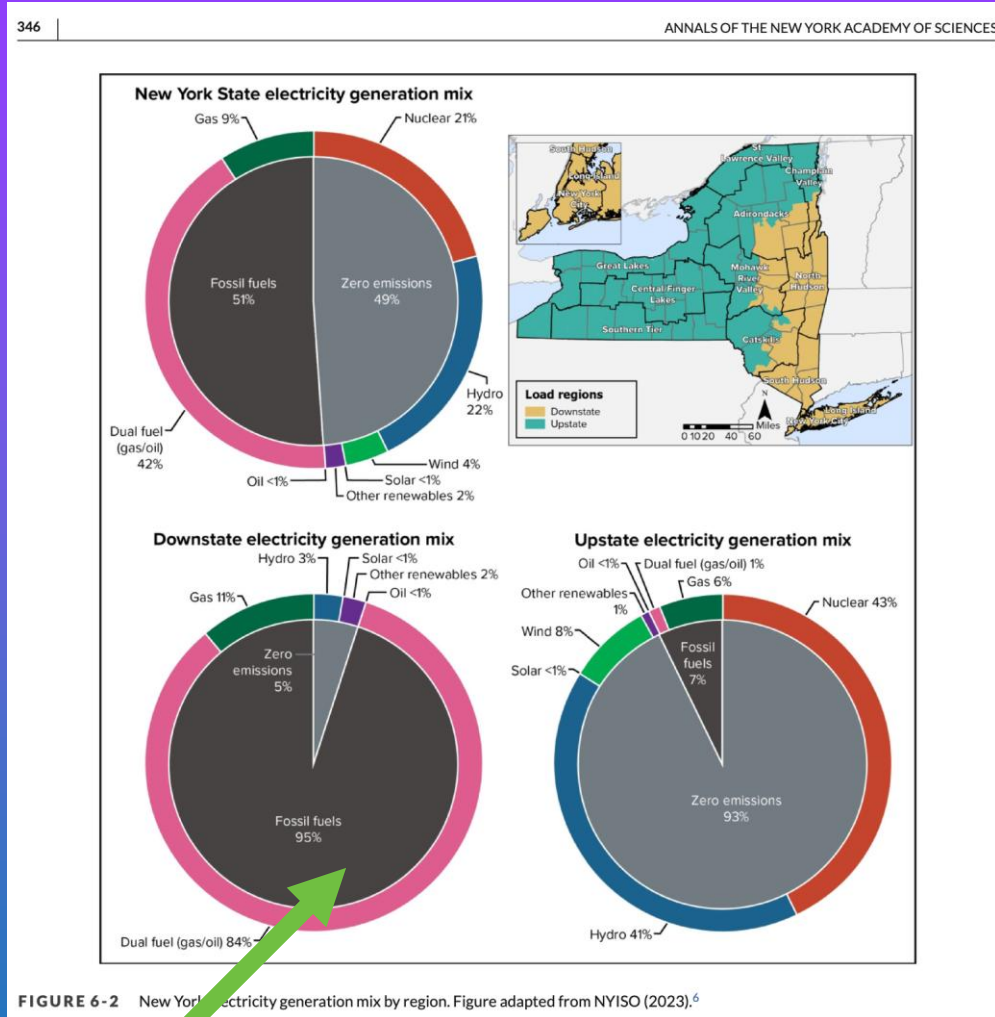
# Adaptability and Resiliency—Supply

**Recommendations—NYISO is implementing applicable FERC Guidance. Additionally:**

- 1. Incorporating weather forecasts** into planning for energy system operation and emergency response by utilities;
- 2. Training and mobilization** of logistics, supply chains, and personnel in advance of and after an event;
- 3. Dual and backup fuel requirements.** NYSRC rules require that fossil-fueled generators in NYC be dual-fuel (can burn both natural gas and fuel oil)—include onsite backup fuel storage;
- 4. Redundancy for natural gas compression.** Combustion-driven compression can use gas provided by the pipeline to continue the circulation of natural gas in the event of power outage; and
- 5. Storage capacity** allows grid flexibility so that peak demands can be satisfied—especially given the transition to a renewable energy-dominant grid.



# Adaptability and Resiliency—Delivery



## Recommendations:

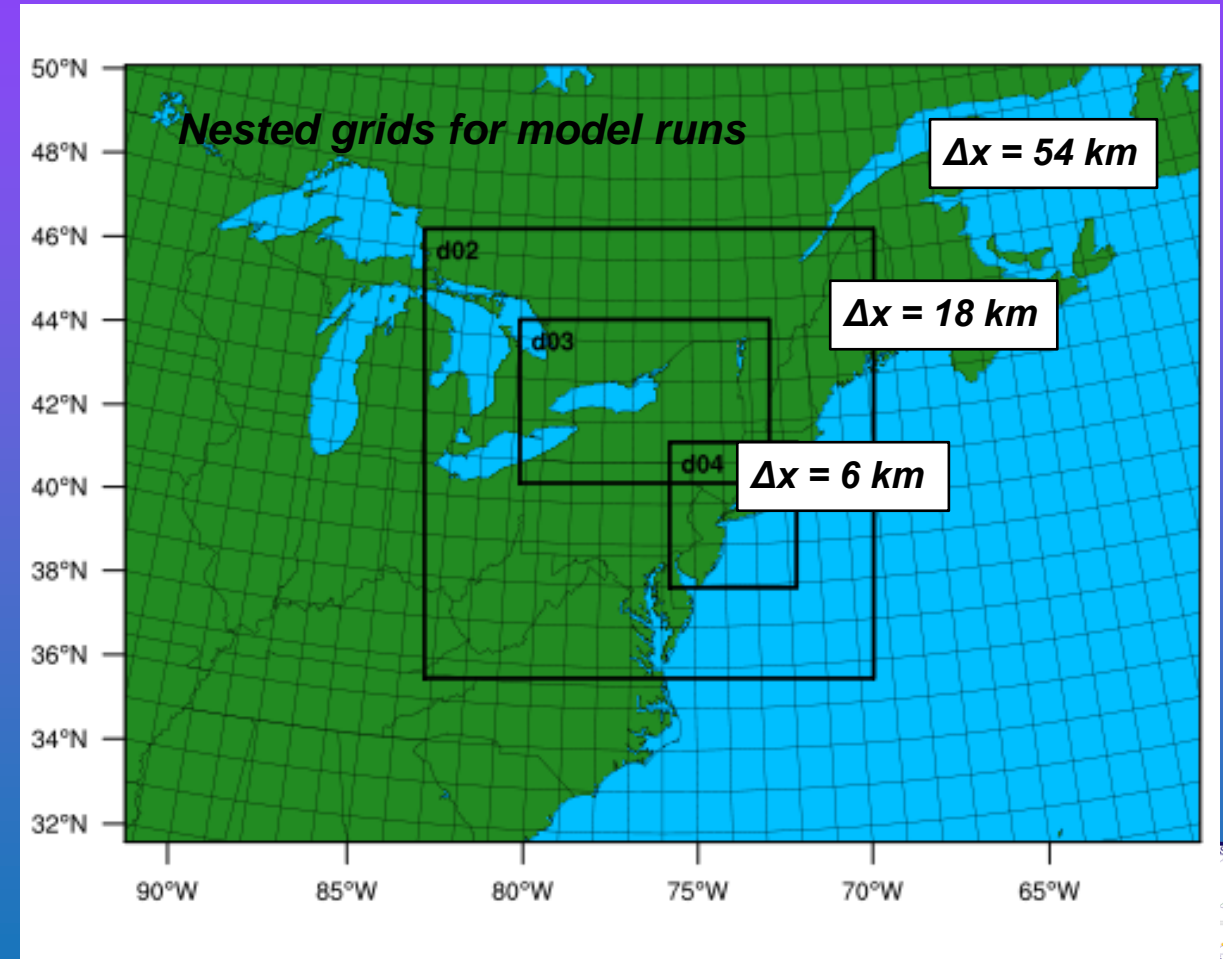
1. **Microgrids**, which can offer emergency power option when the primary source of energy is down (e.g., the Marcus Garvey Village Microgrid case study);
2. **Hybrid renewable (solar and wind)** stations with energy storage. For example, wind turbines pick up generation when solar conditions are not ideal, and vice versa. Associated large-scale grid energy storage offers additional resilience;
3. **Redundant communication systems and smart meters** have been employed to improve the speed of grid recovery;
4. **Autonomous energy grids**, currently under development, designed to integrate demand response resources based on machine learning. This is particularly useful when sending power from the transmission to the distribution level.

Where offshore wind will  
play a huge role



# The Effects of Climate Change on Renewable Energy Distribution in New York State: Results from High-Resolution Dynamic Downscaling

- Work sponsored by the New York State Energy Research and Development Authority (NYSERDA)
- Performed dynamic downscaling (using a mesoscale “numerical weather prediction” model) of the selected (3 “representative”) CMIP5 models for 3 periods:
  1. historical (1998 - 2017)
  2. near-future (2018 - 2037)
  3. mid-future (2038 - 2057)and two scenarios — Representative Concentration Pathways — (RCP4.5 and RCP 8.5)



# 100 m Annual Wind Speed and Surface Irradiance Change ( $\text{ms}^{-1}$ or $\text{Wm}^{-2}$ and % change) for 2018 - 2037

Base Period (1998 - 2017): Grids d03 and d04

Model	Scenario	d03 (%change)		d04 (%change)	
		Wind Speed $\text{ms}^{-1} \text{ yr}^{-1}$	Irradiance GHI $\text{W m}^{-2}$	Wind Speed $\text{ms}^{-1} \text{ yr}^{-1}$	Irradiance GHI $\text{W m}^{-2}$
GFDL-CM3	RCP45	-0.10 (-1)	-3.84 (-1)	-0.09 (-1)	-5.16 (-2)
	RCP85	-0.16 (-2)	-5.20 (-2)	-0.16 (-2)	-5.43 (-2)
NCAR-CCSM4	RCP45	0.07 (1)	-7.02 (-2)	0.00 (0)	-2.43 (-1)
	RCP85	0.46 (6)	22.26 (8)	0.19 (2)	21.31 (8)
MIROC5	RCP45	0.00 (0)	-7.12 (-2)	-0.04 (-1)	-5.62 (-2)
	RCP85	0.00 (0)	-6.09 (-2)	0.00 (0)	-6.14 (-2)
Mean		<b>0.05 (0.6%)</b>	<b>-0.18 (0)</b>	<b>-0.02 (0.2%)</b>	<b>-0.58 (0)</b>

Key Takeaways—if we consider the model ensemble average (both scenarios):

1. For **wind speed**, regional changes in are quite small ( $< 0.05 \text{ ms}^{-1}$ ), or less than 1% of the domain-averaged 100 m wind speeds;
2. For **surface irradiance**, regional changes are near zero through 2037; and
3. For **precipitation** (not shown in table), an overall increase in mean annual precipitation of  $\sim 15 \text{ mm year}^{-1}$ , about 2 - 5% of the yearly average.



# New York Climate Impacts Assessment

## Case Study: Marcus Garvey Apartments

A 400-kilowatt (kW) rooftop PV system, a 400-kW natural gas fuel cell, and a 300-kW/1200-kW-hour lithium-ion battery for energy storage.

- Generates about 1.1 MW of electricity to help meet the demand from Marcus Garvey Village's 625 residential units (approximately 1.5 MW peak in the summer and 3 MW peak in the winter);
- Larger grid provides additional electricity to meet any demand above the microgrid's supply;
- Increases the housing complex's climate resilience and storage capacity of the system ensures residents have reliable energy resources during power outages caused by storms or during times of high electricity demand;
- A communal space during an extreme event that would receive emergency power for heating, lighting, cell phone charging, and refrigeration for medicines for up to 12 hours.



Photo by Bright Power

Wide spectrum of issues associated with energy costs

Can renewable energy reduce costs?

Yes!

And also result in environmental, grid resilience, and air quality improvements across all NYS communities

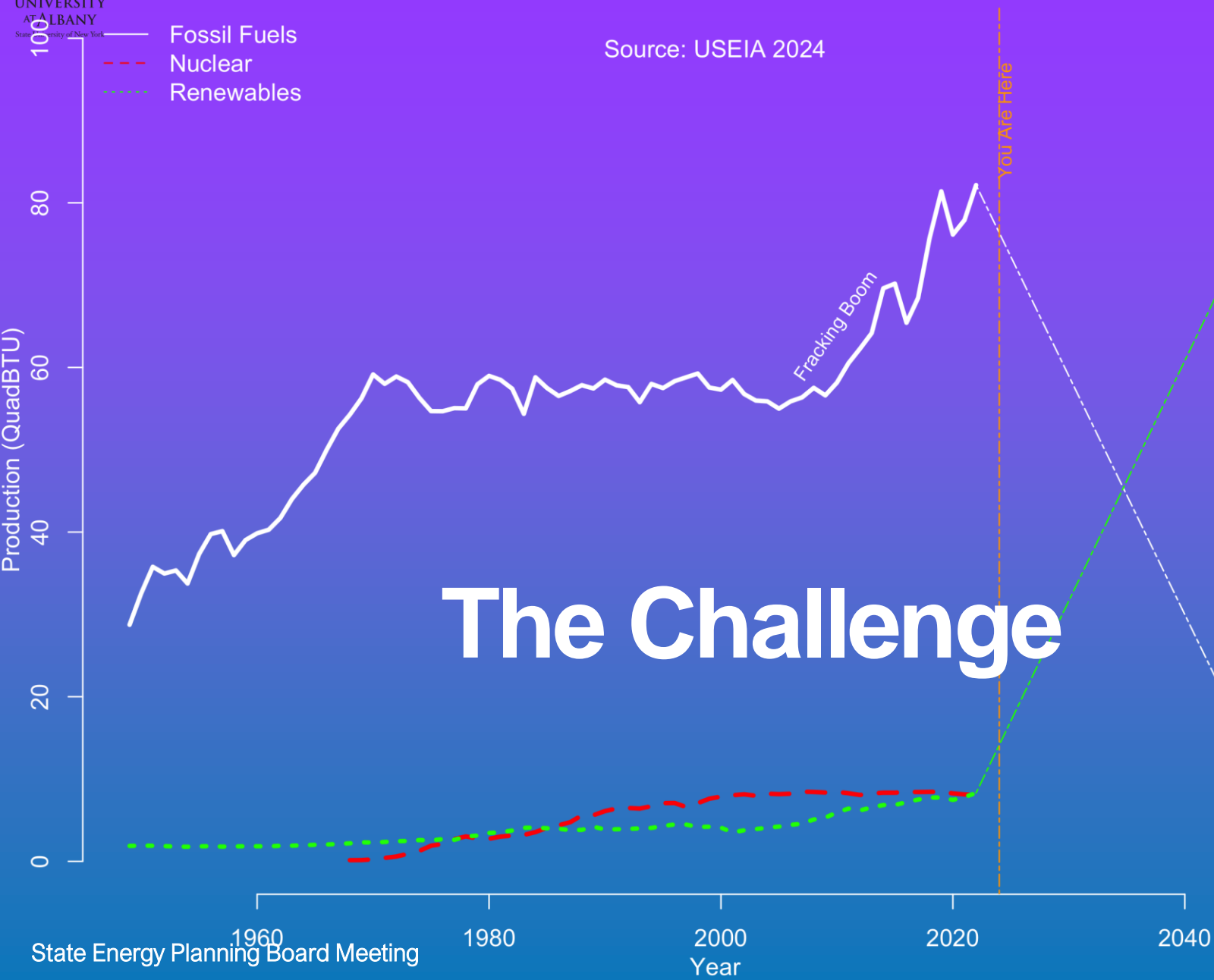
**TABLE 6-1** Sources of disparities that contribute to high energy burdens and climate vulnerabilities.

Source category	Contributing factors
Location and geography	<ul style="list-style-type: none"><li>• Climate zone</li><li>• Ruralness</li><li>• Historically redlined areas</li><li>• Tribal land</li></ul>
Housing characteristics	<ul style="list-style-type: none"><li>• Thermal integrity</li><li>• Type, age, and size</li><li>• Owner or renter</li><li>• Appliances (age and type)</li><li>• Internet, communications, and information technologies infrastructure</li></ul>
Socioeconomic characteristics	<ul style="list-style-type: none"><li>• Income</li><li>• Race and ethnicity</li><li>• Immigrant versus native born</li><li>• Age</li><li>• Language isolation</li><li>• Disability status</li><li>• Crowdedness</li><li>• Education</li><li>• Employment</li></ul>
Energy prices and policies	<ul style="list-style-type: none"><li>• Energy prices</li><li>• Energy policy design</li><li>• Energy mix and access to natural gas</li><li>• Availability and effectiveness of low-income energy programs and appliances</li><li>• Access to new energy technologies</li><li>• Access to energy industry employment</li></ul>
Behavioral factors	<ul style="list-style-type: none"><li>• Lack of knowledge</li><li>• Misplaced incentives or principal-agent problems</li><li>• Lifestyles and cultural factors</li><li>• Lack of control over energy bills</li><li>• High transaction costs</li></ul>

Note: Table adapted from Brown et al.<sup>54</sup> and Hernández.<sup>167</sup>

# Annual US Energy Production (1949 - 2022)

Source: USEIA 2024



## The Challenge

Renewable Energy  
Target (2050?)

NOT a MW for MW  
replacement! Think CFs.

Fossil Fuel  
Energy Target

# Thank You!

# Questions?





Empire State  
Development

# Investing In New York's Energy Infrastructure

*Making investments to modernize New York's energy infrastructure to catalyze new investments for businesses, communities, and job creation*

**State Energy Planning Board Meeting**

**03/03/25**

*Photo -  
Marcy Nano Center*





# EMPIRE STATE DEVELOPMENT (ESD)

is New York State's economic development arm, partnering with businesses to help them grow.

Our mission is promote a vigorous, inclusive, and growing state economy. Our portfolio includes:

- Attracting major investments from key industries – like semiconductors, cleantech, & agribusiness
- Fostering innovation and commercialization for New York businesses.
- Supporting agriculture and craft beverage businesses.
- Oversee tourism under the I LOVE NY brand
- Driving employer centric workforce development
- Driving key infrastructure upgrades critical to economic growth

We are here to help businesses grow and thrive in New York State.



# Why Industry is Choosing New York



World class R&D and innovation assets

**\$20B+**

Invested in NY R&D facilities including NENY battery centers and NY CREATES, the largest and most advanced semiconductor R&D facility of its kind in North America.



Robust high-tech workforce

**#3**

in the nation in engineering graduates relevant to semiconductor chemical and equipment suppliers<sup>1</sup>



Globally competitive incentives and unparalleled industry support

**\$13B**

Excelsior Jobs Incentive – including Green CHIPS and enhanced green excelsior



Focus on infrastructure ready sites

**\$230m**

\$232m awarded in FAST NY shovel ready grants with focus on power, water, sewer, transportation assets.

1. New York States ranks #3 in the US in higher education graduates for mechanical, computer, general, and chemical engineers





# Industry Trend – Big Power Demands

## Companies' power needs

## Power challenges they face in NYS



Stable and abundant power

50+ MW

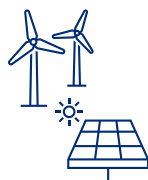
The amount of power routinely requested by microelectronics & clean tech companies.



Rapid availability

4 years

The amount of time it takes to deliver and install new transformers at sites in NYS.



Clean energy sources

100%

Clean energy is increasingly driving site selection in semiconductors and clean tech manufacturing. Ex. Micron's goal is to achieve 100% renewable energy usage for all U.S. operations and plans to achieve net zero GHG emissions globally by 2050

# Shovel Ready / Power Ready Sites

Site Selector's Guild Survey:

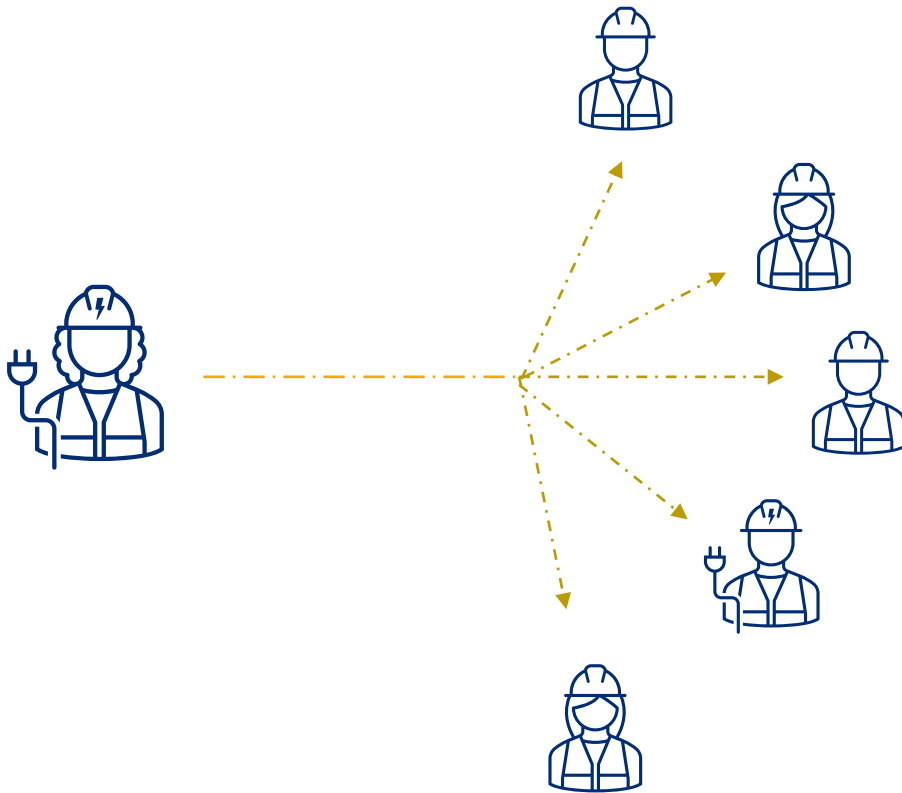
***Shovel ready sites  
are the #1 incentive***



Photo - WNY STAMP

# Significance of Manufacturing in NY

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- Manufacturing jobs are a great **jobs multiplier**.
- For every **one worker** in the industry – **4.8 jobs are supported**.
- Making sure those jobs go to New York will require **attracting supply chain investment**.

# Status of **High-Power** Megasites in NY

- Almost all our high-power, shovel ready sites are **at or nearing capacity**.
- ESD is investing **\$400 million to develop more** via FAST NY.
- Without sites with plentiful, affordable, reliable, and clean power **supply chain companies will locate elsewhere**.



**LUTHER  
FOREST**

GlobalFoundries



**WHITE PINE**

Micron



**STAMP**

Plug Power, Edwards  
Vacuum

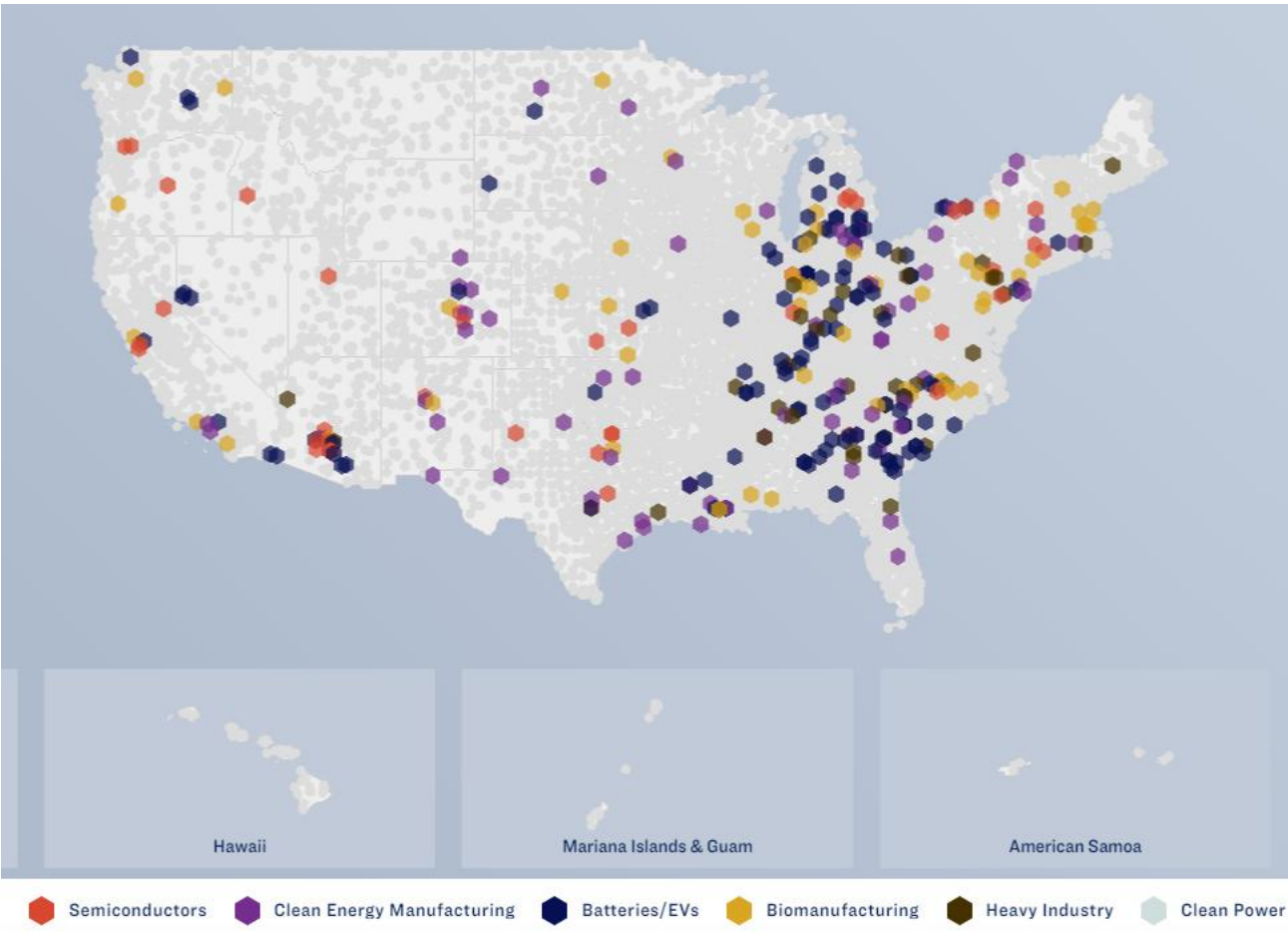


**MARCY  
NANOCENTER**

Wolfspeed



# Competitive Landscape



- Large volume of interest nationally.
- Driven by federal trade policy.
- Sites with 200+ acres and 50MW+ are in **high demand** and **short supply**.
- Emerging battery belt from Midwest to south
- Shovel ready / power ready sites in NYS needed to be open for business.

[US Manufacturing Investments Since 2021](#)

# Key Programs to Power Economic Development

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This year's Executive Budget contains new and expanded programs to develop and improve sites to attract more investment and create opportunities for New Yorkers.

## POWER UP

**\$300m**

a **new program** to fund the proactive development of electric capacity to create power-ready sites and attract new businesses

## FAST NY

**\$400m**

Including a **new \$100m commitment** in the Executive Budget for FAST NY which proactively provides funding for engineering, environmental reviews, electric upgrades, water, power, sewer, & transportation access

# Key Projects – Powering Growth



## ***Micron*** **White Pine Industrial Park**

960 MW of power needed  
\$100B Project  
9,000 direct jobs



## ***Edwards Vacuum*** **WNY STAMP**

\$56m FAST NY Grant – infrastructure  
600MW substation in construction  
\$318m project  
600 jobs



## ***fairlife*** **Tebor Road Site**

\$20m FAST NY Grant – electric upgrades  
Substation upgrade  
\$650m project  
250 jobs

5 million pounds of local milk per day  
The largest dairy plant in the Northeast  
Huge market opportunity to NY's 3000 dairy farms



## ***Largescale Component Manufacturing*** **Port of Albany**

\$18.8m FAST NY Grant - electric/infrastructure  
Redundant 12.5MW substation  
\$170m shovel ready project using primarily private capital  
With the FAST NY money, the port will "be able to move forward with the electrification infrastructure of expanding the port including new sub-station installation, critical long-lead item in any major development." POA CEO



# Powering Economic Growth Together

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- This is a chance to **reshape the economic trajectory** of New York.
- We can bring **thousands of good paying jobs** and **revitalize Rust Belt communities**.
- We have the opportunity to literally **power the growth of industries that will reshore manufacturing, improve national security, improve food security and enable the transition from fossil fuels**.
- To succeed we need **to ensure high-quality, affordable, clean power**.
- **Collaboration and careful planning** are critical





Empire State  
Development

# Thank you

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**State Energy Planning Board Meeting**

**03/03/25**

*Photo -  
Marcy Nano Center*



# Board Discussion

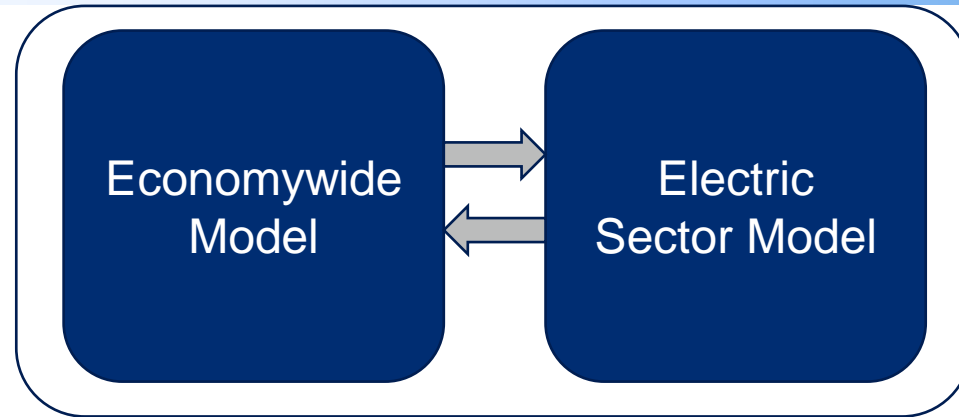
# Presentation: Planned Pathways Analysis



# Key metrics for exploration in the Pathways Analysis

- > The Pathways Analysis can inform several metrics required of the State Energy Plan, including:
  - Forecast of demand for electricity and other fuels
  - Resources needed to meet forecasted demand, including electric generation capacity
  - Deployment of key demand-side technologies, including energy efficiency and electrification measures
  - Projected greenhouse gas emissions
  - Assessment of impacts of current policies and programs
  - Impacts to public health
- > The Pathways Analysis takes a scenario-based approach given future uncertainty

# Pathways Analysis modeling approach



## > Economywide Model

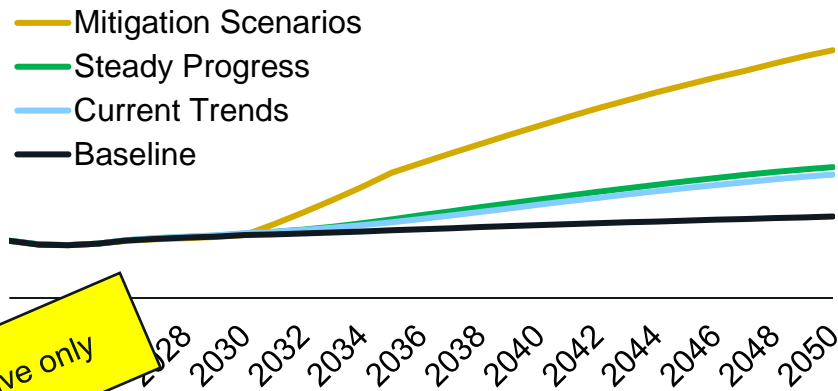
- Takes as input key data from other NYSERDA industry studies and program data
- Models stocks, turnover, and sales of equipment across sectors, e.g. buildings, transport, industry
- Outputs fuel use, electric loads and peaks, and gross and net emissions across sectors
- Takes as input nonenergy sector data, e.g. waste, ag.
- Incorporates refrigerant emissions, fugitive gas system emissions, and health outcomes from additional modules
- Aggregates societal cost and health and carbon benefits

## > Electric Sector Model

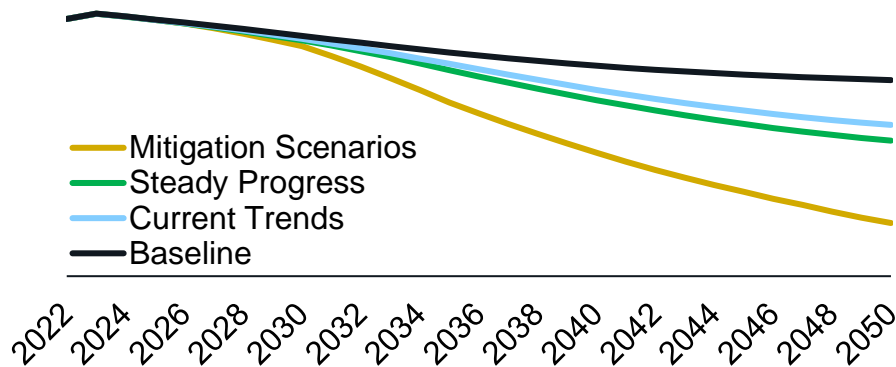
- Takes as input the loads and peaks from the Economywide Model
- Builds an electric system that meets the scenario load shapes, maintains reliability standards, and achieves Scenario-specific constraints
- Outputs cost and emission data for the electric sector to feed back into economywide model

# Scenario framework

## Electricity Demand by Scenario



## End Use Fuel Demand by Scenario



### Baseline Scenario

- > Includes federal policies but excludes New York's incremental clean energy policies. Reflects only modest adoption of clean energy technologies
- > Acts as a point of comparison to understand incremental benefits and costs of pursuing the CLCPA

### Current Trends

- > Includes impacts of State and Local actions, for example:
  - Advanced building codes alongside energy efficiency and electrification programs
  - Policies and programs influencing vehicle electrification
  - Deployment of clean electricity generation

### Steady Progress

- > Includes all policies from Current Trends
- > Additionally, assumes ongoing progress from additional policies and programs for continued market adoption into future years

### Mitigation Scenarios

- > Explore different pathways to achievement of 2050 economywide limit

*\*Scenario outcomes are illustrative and do not reflect specific modeling*



# Board Discussion

# Other Business

# **Thank you for your participation in this meeting of the State Energy Planning Board**

For more information, please visit the  
State Energy Plan website:

[energyplan.ny.gov](http://energyplan.ny.gov)