

City of New Rochelle
Development

MEMORANDUM

TO: Honorable Mayor and City Council
THRU: Charles B. Strome, III, City Manager
FROM: Adam Salgado, Commissioner of Development
DATE: June 21, 2022
SUBJECT: PROPOSED SUPPORT OF THE CLIMATE ACTION COUNCIL DRAFT SCOPING PLAN - Resolution in support of the Climate Action Council Draft Scoping Plan.

Introduction:

Through the Westchester Municipal Officials Association, Sustainable Westchester is conducting outreach to encourage municipalities to support the draft Climate Action Council Scoping Plan. The plan is the result of the Climate Leadership and Community Protection Act, which was signed into law in 2019. It seeks to address the subject of climate change and community protection with a sweeping array of strategies to reduce greenhouse gas emissions and achieve net-zero emissions, increase renewable energy usage, and achieve climate justice.

Recommendations:

Attached is an overview of the draft scoping plan. Staff recommends Council adopt a resolution in support of the Draft Scoping Plan.

Encs:

- Draft Scoping Plan overview

LEGISLATION

**RESOLUTION IN SUPPORT OF THE CLIMATE ACTION COUNCIL
DRAFT SCOPING PLAN.**

WHEREAS, through the Westchester Municipal Officials Association, Sustainable Westchester is conducting outreach to encourage municipalities to support the draft Climate Action Council Scoping Plan; and

WHEREAS, the plan is the result of the Climate Leadership and Community Protection Act, which was signed into law in 2019 and seeks to address the subject of climate change and community protection with a sweeping array of strategies to reduce greenhouse gas emissions and achieve net-zero emissions, increase renewable energy usage, and achieve climate justice; now, therefore,

BE IT RESOLVED, that the City Council supports the Climate Action Council Draft Scoping Plan.

ATTACHMENTS:

1. Draft-Scoping-Plan-Overview (4)

Draft Scoping Plan Overview

January 2022



**Climate Action
Council**

Attachment: Draft-Scoping-Plan-Overview (4) (2022-95 : PROPOSED RESOLUTION

Climate Leadership and Community Protection Act (CLCPA) – Overview

Carbon neutral economy, mandating at least an 85% reduction in emissions below 1990 levels

40% reduction in emissions by 2030

100% zero-emissions electricity by 2040

70% renewable electricity by 2030

9,000 MW of offshore wind by 2035

6,000 MW of distributed solar by 2025

3,000 MW of energy storage by 2030

185 TBtu on-site energy savings by 2025

Commitments to climate justice and just transition

Climate Action Council

**Doreen Harris,
Chair**
Acting President &
CEO: NYSERDA

Basil Seggos, Chair
Commissioner: Dept.
of Environmental
Conservation

Richard Ball
Commissioner: NYS
Department of
Agriculture and
Markets

**Marie Therese
Dominguez**
Commissioner: NYS
Department of
Transportation

Thomas Falcone
CEO: Long Island
Power Authority

Hope Knight
Acting Commissioner
and President & CEO-
designate: Empire
State Development

Justin Driscoll
Acting President and
CEO: New York Power
Authority

Roberta Reardon
Commissioner: New
York State
Department of Labor

Rory Christian
Chair: New York State
Public Service
Commission

Robert J. Rodriguez
Secretary of State, NYS
Department of State

**RuthAnne
Visnauskas**
Commissioner and
CEO: NYS Homes and
Community Renewal

Mary T. Bassett
Commissioner: New
York State Department
of Health

Donna L. DeCarolis
President: National
Fuel Gas Distribution
Corporation

Gavin Donohue
President and CEO:
Independent Power
Producers of New
York

Dennis Elsenbeck
President: Viridi
Parente, Inc.

Rose Harvey
Senior Fellow for
Parks and Open
Space: Regional Plan
Association

Bob Howarth
Professor of Ecology
and Environmental
Biology: Cornell

Peter Iwanowicz
Executive Director:
Environmental
Advocates NY

Vacant
Governor Appointee

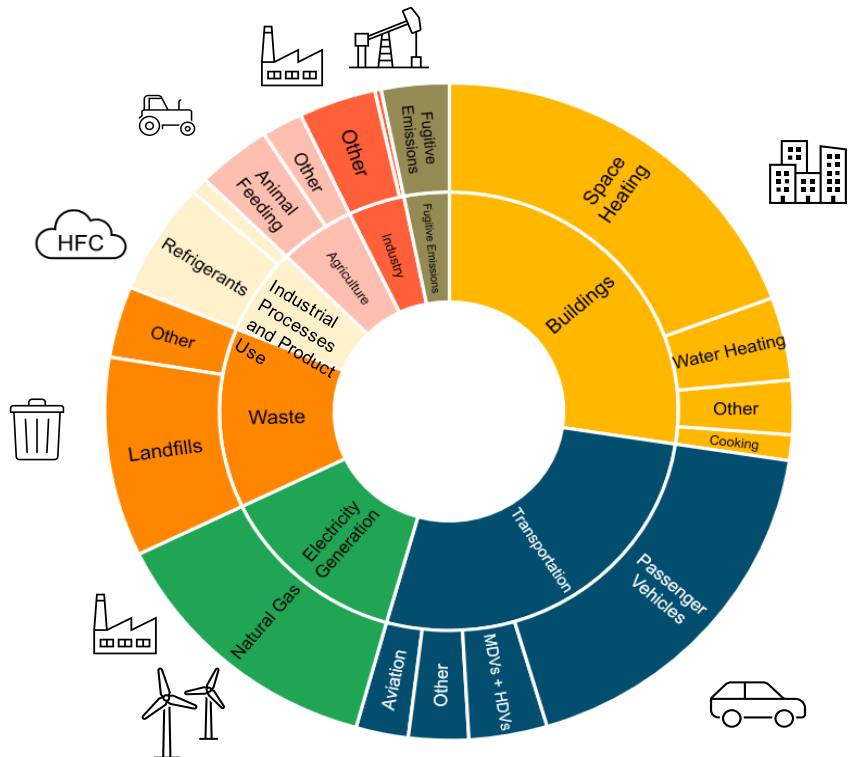
Anne Reynolds
Executive Director:
Alliance for Clean
Energy New York

Raya Salter
Principal: Imagine
Power LLC

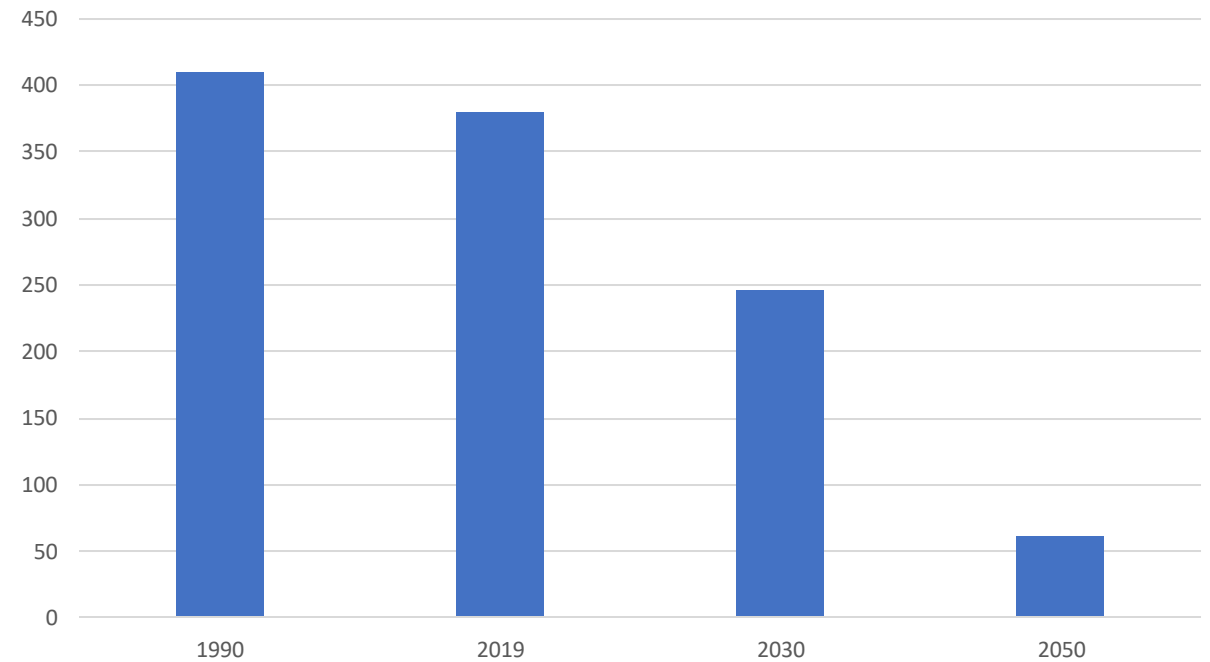
Paul Shepson
Dean of School of
Marine &
Atmospheric Sciences:
Stony Brook Un

GHG Emissions Reduction Requirements

Current Estimated GHG Emissions by Sector



New York State GHG Emissions (MMtCO₂e)



Process for developing the Draft Scoping Plan

The Climate Act requires the CAC to develop a draft Scoping Plan to meet statutory emission limits by the end of 2021

- > The Draft Plan is informed by recommendations of Advisory Panels, Just Transition Working Group, and Climate Justice Working Group
- > Reflects the consensus recommendations from the Advisory Panels and JTWG as the strategies to achieve the emissions limits
- > Considers climate justice, job creation, cost reductions, public health benefits, minimizing emission leakage
- > Emissions addressed include upstream emissions associated with fossil fuels from out-of-state
- > Undertakes comprehensive benefit-cost analysis
- > The recommendations formed basis of scenario modeling to show impact of interaction of strategies across sectors
 - 3 scenarios to achieve emissions limits – seeking public feedback on the mix of strategies and level of ambition

Summary of Strategies in the Draft Plan

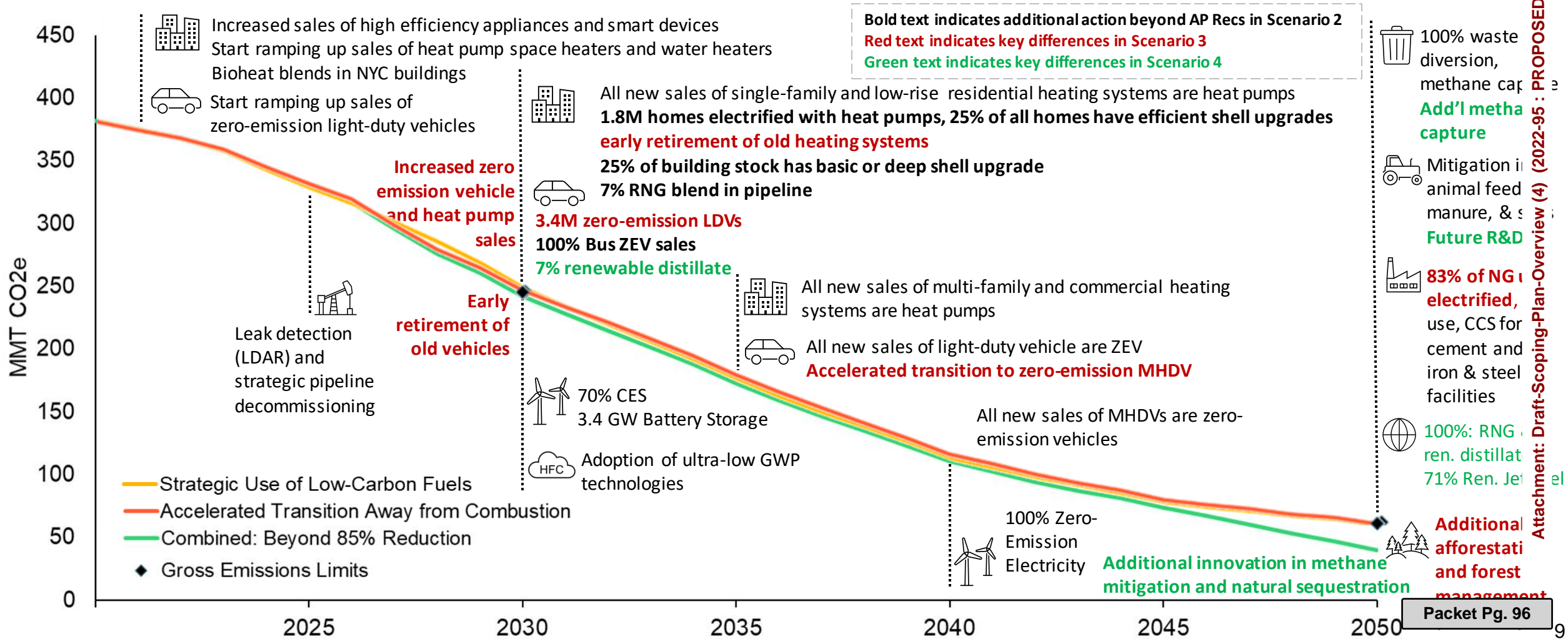
The Draft Scoping Plan scenarios advance several key strategies that are fundamental to achieving the emission limits

- > Energy efficiency measures that achieve the Climate Act energy efficiency goal
- > Transition from fossil fuels to electrification in buildings
- > Zero emissions electricity
- > Transportation electrification
- > Enhancement of transit, smart growth, and reduced vehicle miles traveled (VMT)
- > A transition to low-GWP refrigerants and enhanced refrigerant management
- > Maximizing carbon sequestration in New York's lands and forests
- > Eliminate fugitive methane emissions across the waste, agriculture, and energy sectors
- > A diverse portfolio of solutions in industry, including efficiency, electrification, and limited and strategic use of low-carbon fuels and carbon capture technologies for certain industrial applications.

Scenario Overview

- > Scenarios that meet or exceed GHG emission limits, achieve carbon neutrality by midcentury
 - Foundational themes across **all** mitigation scenarios based on findings from Advisory Panels and supporting analysis
 - Zero emission power sector by 2040
 - Enhancement and expansion of transit & vehicle miles traveled reduction
 - More rapid and widespread end-use electrification & efficiency
 - Higher methane mitigation in agriculture and waste
 - End-use electric load flexibility reflective of high customer engagement and advanced techs
 - **Scenario 2: Strategic Use of Low-Carbon Fuels**
 - Includes the use of bioenergy derived from biogenic waste, agriculture & forest residues, and limited purpose grown biomass, as well as green hydrogen, for difficult to electrify applications
 - **Scenario 3: Accelerated Transition Away from Combustion**
 - Low-to-no bioenergy and hydrogen combustion; Accelerated electrification of buildings and transportation
 - **Scenario 4: Beyond 85% Reduction**
 - Accelerated electrification + limited low-carbon fuels; Additional VMT reductions; Additional innovation in methane abatement; Avoids direct air capture of CO₂

Comparison of the Mitigation Scenarios



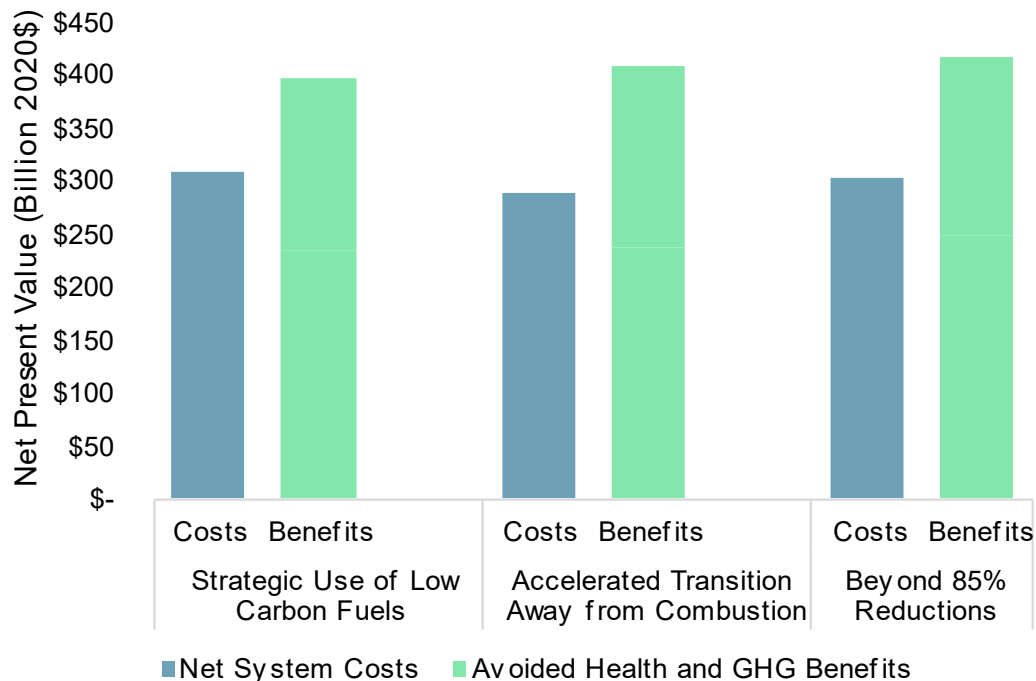
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Key Benefit-Cost Findings [NPV 2020-2050]

Cost of Inaction Exceeds the Cost of Action by more than \$90 billion

There are significant required investments to achieve Climate Act GHG Emissions Limits, accompanied by even greater external benefits and the opportunity to create hundreds of thousands of jobs

2020 - 2050

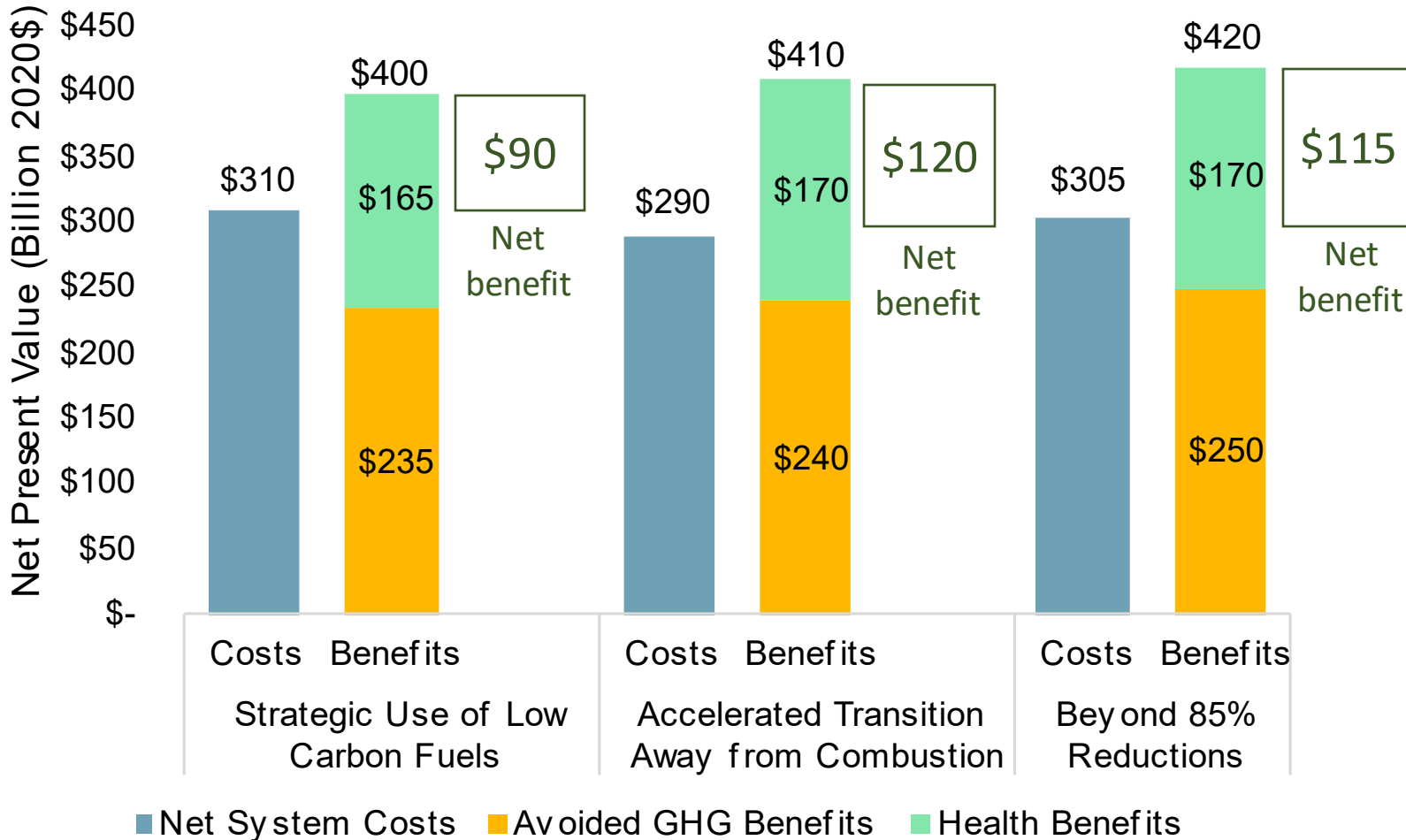


- **Net *benefits* range from \$90-\$120 billion**
- Costs are a small share of **New York’s economy**: 0.6-0.7% of GSP in 2030 and 1.4% in 2050
- As a share of current overall **system expenditures**, costs are moderate: 9-11% in 2030 and 25-26% in 2050

Attachment: Draft-Scoping-Plan-Overview (4) (2022-95 : PROPOSED RESOLUTION

Benefit-Cost Assessment

Net Present Value of benefits and costs relative to Reference, including net direct costs, GHG benefits, and health benefits (2020 – 2050)



Mitigation cases show **positive net benefits (\$90-\$120 billion)** when considering the value of avoided greenhouse gas emissions and health co-benefits, in addition to cost savings from reduced fuel use

Integration Analysis Findings

- > **Achieving deep decarbonization is feasible by mid-century.** Achieving the emission limits **requires action in all sectors**, requiring critical investments in New York's economy.
- > **Energy efficiency and end-use electrification are essential.** Approximately 1 to 2 million efficient homes will need to be electrified with heat pumps by 2030. Approximately 3 million zero-emission vehicles (predominantly battery electric) will need to be sold by 2030.
- > **New York will need to substantially reduce VMT while increasing access to public transportation.** This should include expanding transit services structured around community needs, smart growth inclusive of equitable TOD (E-TOD), and transportation demand management.
- > **Consumer and community decision-making is key, and especially important for the purchase of new passenger vehicles and heating systems for homes and businesses through the next decade.** In all modeled scenarios, zero-emission vehicles and heat pumps will need to become the majority of new purchase by the late 2020s, and fossil fuel-emitting cars and appliances will no longer be sold after 2035.
- > **A transition to low-GWP refrigerants and enhanced refrigerant management will be required** to electrify while reducing and ultimately eliminating GHG emissions from HFC-based refrigerants used in today's heat pumps.

Integration Analysis Findings (cont'd)

- > **Low-carbon fuels such as bioenergy or green hydrogen have a role**
 - **Sectors that are challenging to electrify**, including MHD vehicles and high-temperature industrial, potential application in district heating and non-road transportation such as aviation and rail.
 - **Electricity system reliability beyond 2040**, increased electrification results in electric consumption doubling and peak load nearly doubling by 2050, and New York becomes a winter peaking system by 2035. Firm, zero-emission resources, such as green hydrogen or long-duration storage are needed
- > **Necessary methane emissions mitigation in waste and agriculture will require transformative solutions**
Massive diversion of organic waste from landfills and innovative manure management and animal feeding practices coupled with the capture of fugitive methane emissions
- > **Large-scale carbon sequestration opportunities include lands and forests and negative emissions technologies.** Protecting and growing New York's forests is required for carbon neutrality. Negative emissions technologies (such as the direct air capture of CO₂) may be required if the state cannot exceed 85% direct emissions reductions by 2050. Strategic land-use planning will be essential to balance natural carbon sequestration, agriculture activities, new renewables development, and smart urban planning (smart growth).
- > **Research, development, and demonstration (RD&D) is key.** Additional innovation will be required in areas such as carbon sequestration solutions, long-duration storage, flexible electric loads, low-GWP refrigerants, and animal feeding, in concert with federal action (such as Earthshots).

Health Effects

Overview of the Analyses

The public health benefits analysis includes three components:

1. Improvements in **ambient air quality** from reduced fuel combustion
 - Using EPA's Co-Benefits Risk Assessment Health Impacts Screening and Mapping Tool (COBRA), NYS quantified **air quality and health benefits** resulting from the pathways analyzed from 2020 to 2050
2. Health improvements from increased **active transportation** (e.g., walking and cycling)
 - The potential for public health benefits from increased activity while accounting for changes in traffic collisions were estimated using the *Integrated Transport Health Impacts Model* (ITHIM)
3. Health benefits associated with **energy efficiency interventions** in low- and moderate-income homes
 - This analysis applies the average values from published literature on the health and safety benefits of energy efficiency and weatherization programs to estimate the benefits of such programs in NYS

Key Findings

- Decarbonization of New York can result in a substantial health benefit from improved air quality, on the order of **\$50 - \$120 billion** from 2020-2050 (based on reduced mortality and other health outcomes)
 - Benefits would be experienced **throughout the state** and downwind of the state in neighboring states.
 - Benefits of reduced fossil fuel combustion are **higher in urban areas** due to both higher emissions and larger impacted population.
 - Although no strategies target wood combustion specifically, **upstate areas** experience benefits of from reduced wood combustion due to electrification and energy efficiency.
 - Annual benefits **grow over time** as pollution rates decrease.
- In addition, we estimate other related potential health benefits:
 - **\$40 billion** associated with the health benefits of increased **active transportation** (e.g., walking, cycling)
 - **\$9 billion** associated with energy **efficiency interventions** in **low- and moderate-income homes** (additional benefits, not quantified, may occur in other buildings as well)

2022 Next Steps

Draft Scoping Plan Public Comment

Public hearings

April 5, 4:00	Bronx Community College, Bronx
April 6, 4:00	Brookhaven Town Hall, Brookhaven
April 12, 4:00	Binghamton University, Binghamton
April 14, 4:00	Empire State Plaza, Albany
April 26, 4:00	SUNY-ESF, Syracuse
April 27, 3:30	Buffalo & Erie County Public Library, Buffalo
May 3, 4:00	NYC City College of Technology, Brooklyn
May 7, 10:00am	Virtual
May 10, 4:00	The Wild Center, Tupper Lake
May 11, 4:00	Virtual

Written comment submissions:

- Comment form at [Climate Act website](#)
- Email to scopingplan@nyserda.ny.gov
- U.S. mail sent to Draft Scoping Plan Comments, NYSERDA, 17 Columbia Circle, Albany, NY 12203

Comment period ends June 10, 2022

See <https://climate.ny.gov/CAC-Meetings-and-Materials> for venue and pre-registration information, webcast for viewing in-person hearings, and links to virtual hearings