Hannah Pingree

Director, Governor's Office of Policy Innovation and the Future

Co-Chair, Maine Climate Council

A FOUR-YEAR PLAN FOR CLIMATE ACTION

MAINE WON'T WAIT

DECEMBER 2020

MAINE CLIMATE COUNCIL

Mills Administration— SIGNIFICANT CLIMATE + CLEAN ENERGY ACTIONS

ESTABLISHED the Maine Climate Council + greenhouse gas reduction targets in law

SIGNED state renewable portfolio standard law requiring 80% renewable energy by 2030 + goal of 100% by 2050

PASSED law to implement 100,000 new heat pumps - including support for low + moderate income Mainers

ESTABLISHED new electric vehicle programs, supported by VW settlements: rebates, charging infrastructure, + public transportation

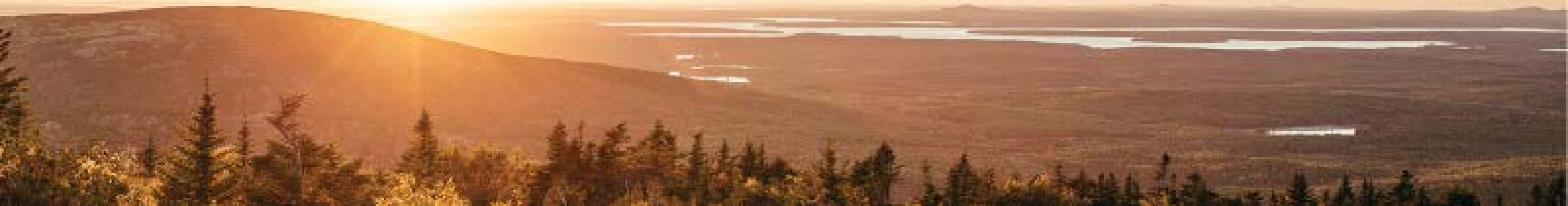
25

22ND STATE TO JOIN the U.S. Climate Alliance— a bi-partisan coalition of 25 U.S. States committed to meeting Paris Climate Goals

ENDED the state's wind energy moratorium, left an offshore drilling coalition, + actively engaged in regional efforts around carbon reductions, transportation, + offshore wind

PASSED legislation to help launch the first floating off-shore wind turbines in the U.S.

INTRODUCED legislation to limit the use of hydrofluorocarbons ("climate super-pollutants") to fight climate change



WHAT IS THE MAINE CLIMATE COUNCIL?

MAINE CLIMATE COUNCIL (LD 1679)

Governor's Bill, sponsored by Senator David Woodsome (R), passed with overwhelming bi-partisan support, signed June 2019

- Set reductions in law: 45% reduction in greenhouse gas emissions by 2030, 80% by 2050
- Created Maine Climate Council to advise the Governor and Legislature on ways to mitigate the causes of, prepare for and adapt to climate change
- State Climate Action Plan update due by December 1, 2020 and every four years

CLIMATE COUNCIL GOALS

12.01.20
Climate Action Plan Delivered

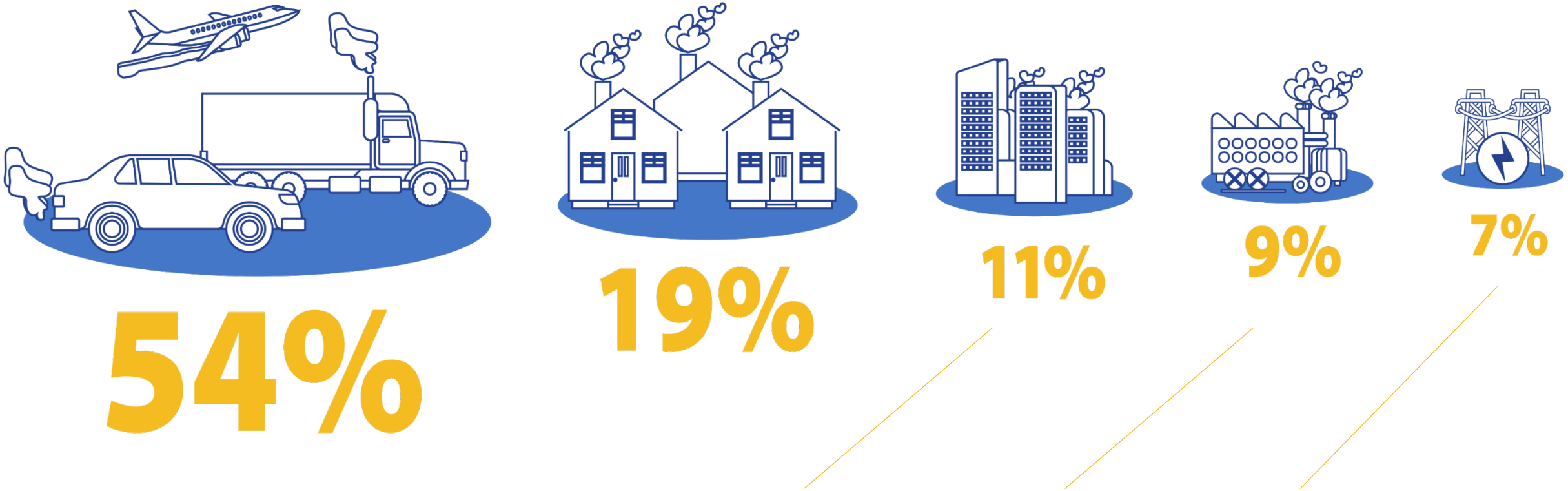
ACHIEVE STATE CARBON NEUTRALITY BY
2045

REDUCE MAINE'S GREENHOUSE GAS EMISSIONS BY TARGETS OUTLINED IN STATE LAW

45%
BELOW 1990 LEVELS BY 2030

80%
BELOW 1990 LEVELS BY 2050

ENSURE MAINE PEOPLE, INDUSTRIES, AND COMMUNITIES ARE RESILIENT TO THE IMPACTS OF CLIMATE CHANGE.

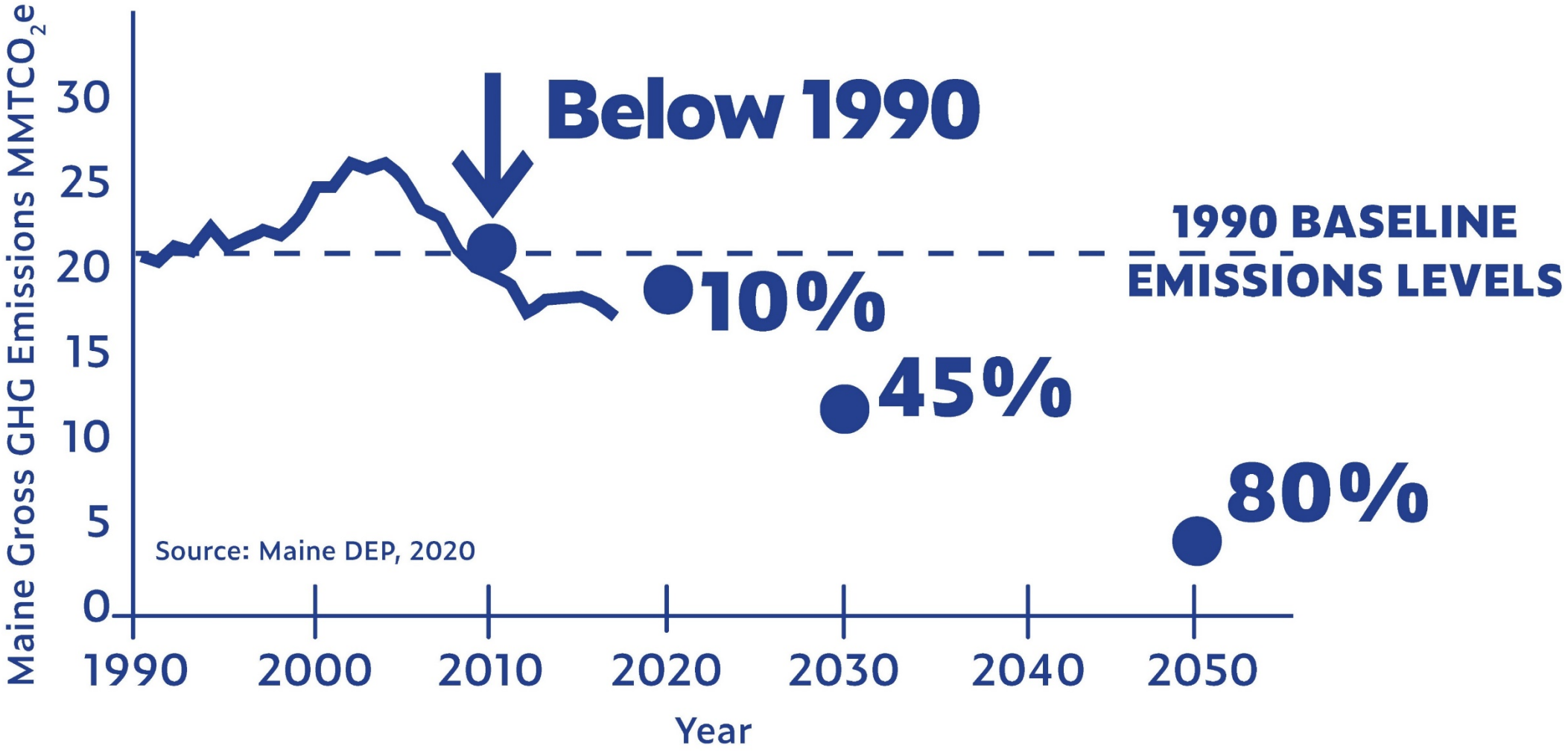


Data source: Maine Department of Environmental Protection 8th Biennial Greenhouse Gas Emissions Report

In Maine, most greenhouse emissions come from transportation, followed by residential, commercial and industrial sources. Finding ways to reduce them is a key goal of the Climate Council.

climatecouncil.maine.gov

Maine Greenhouse Gas (GHG) Emissions + Reduction Goals



Data source: Maine Department of Environmental Protection

Maine Climate Council

PROCESS TIMELINE

June 2019
Governor signs LD 1679, establishing Maine Climate Council

Sept 2019
Governor appoints Maine Climate Council members; MCC launches

Oct 2019 - June 2020
Working Groups & Scientific + Technical Subcommittee Meet Monthly to Develop Mitigation & Adaptation Recommendations, Characterize Climate Impacts

June 2020 - Dec 2020
Maine Climate Council Considers & Selects Final Strategies for State Climate Action Plan

Dec 1, 2020
State Climate Action Plan Delivered to Legislature

climatecouncil.maine.gov

The **39-member Maine Climate Council**, an assembly of scientists, industry leaders, bipartisan local and state officials, is responsible for **developing a Climate Action Plan** for Maine.

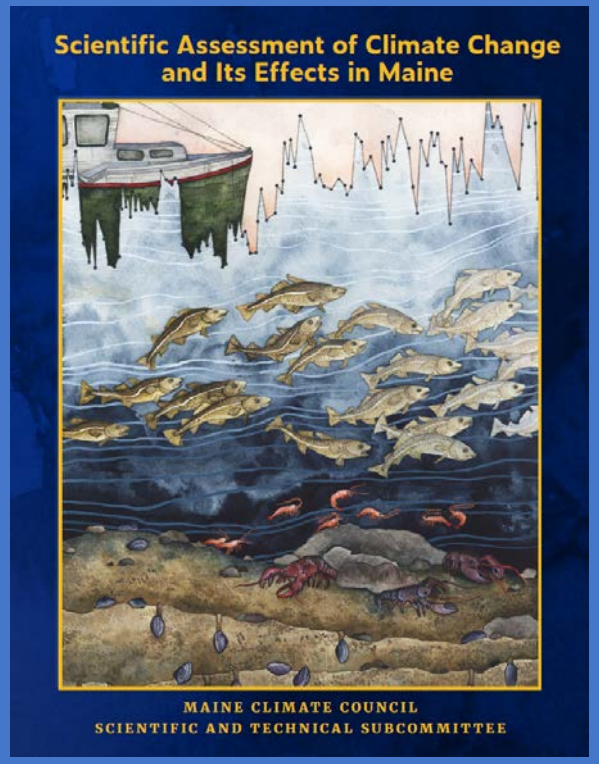
Six working groups comprised of 230+ volunteer members recommend strategies to the Council for achieving Maine's climate goals.

An expert **Scientific and Technical Subcommittee** is responsible for identifying the impacts of climate change in Maine.

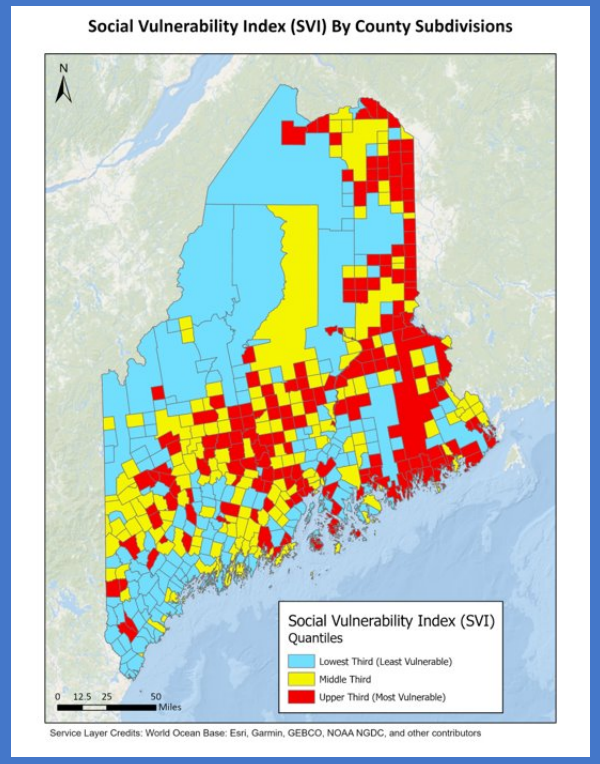
An **Equity Subcommittee** will support planning and implementation of climate strategies to ensure benefits across diverse populations of Maine people.

Maine Climate Council Reports

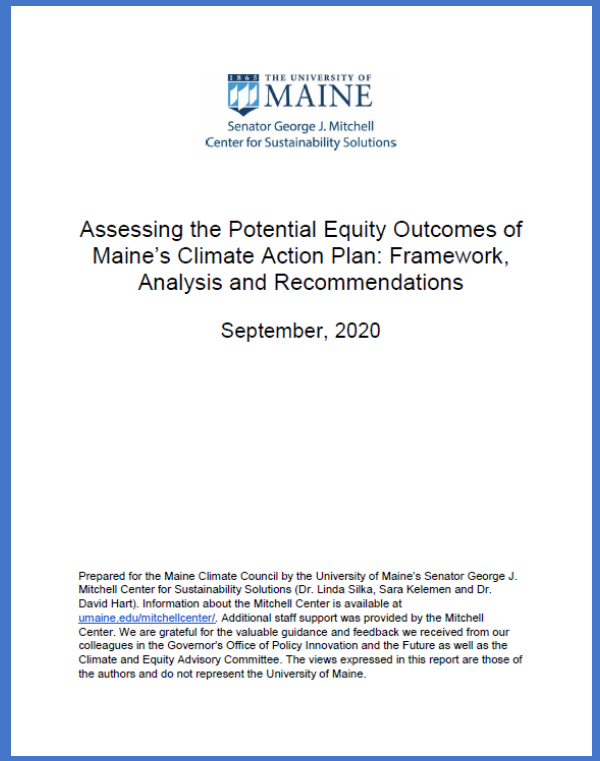
Download at climatecouncil.maine.gov



Scientific Assessment of Climate Change



Cost-Benefit Analysis & Greenhouse Gas Modeling



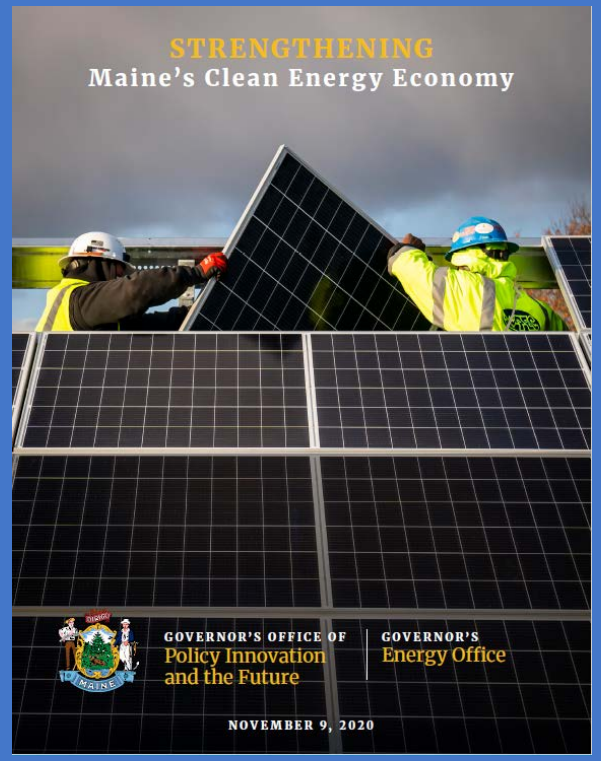
THE UNIVERSITY OF MAINE
Senator George J. Mitchell Center for Sustainability Solutions

Assessing the Potential Equity Outcomes of Maine's Climate Action Plan: Framework, Analysis and Recommendations

September, 2020

Prepared for the Maine Climate Council by the University of Maine's Senator George J. Mitchell Center for Sustainability Solutions (Dr. Linda Silka, Sara Kelemen and Dr. David Hart). Information about the Mitchell Center is available at umaine.edu/mitchellcenter/. Additional staff support was provided by the Mitchell Center. We are grateful for the valuable guidance and feedback we received from our colleagues in the Governor's Office of Policy Innovation and the Future as well as the Climate and Equity Advisory Committee. The views expressed in this report are those of the authors and do not represent the University of Maine.

Equity Assessment of Draft Strategies



Strengthening Maine's Clean Energy Economy Plan

Maine Climate Action Plan Goals

- Reduce Maine's Greenhouse Gas Emissions
- Make Maine more resilient to the impacts of climate
- Foster Economic Opportunity and Prosperity
- Advance Equity through Maine's Climate Response

Maine's 8 Climate Action Strategies

A. Embrace the Future of Transportation in Maine

B. Modernize Maine's Buildings

C. Reduce Carbon Emissions the Energy and Industrial Sectors through Clean Energy Innovation

D. Grow Maine's Clean Energy Economy and Good Jobs

E. Protect Maine's Environment and Working Lands and Waters, Increase Carbon Sequestration

F. Build Healthy and Resilient Communities

G. Invest in Climate-Ready Infrastructure

H. Engage People and Communities in Climate Impacts and Program Opportunities

A FOUR-YEAR PLAN FOR CLIMATE ACTION
MAINE
WON'T WAIT
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MAINE CLIMATE COUNCIL

Strategy A: Embrace the Future of Transportation in Maine

1. Accelerate Maine's Transition to Electric Vehicles
2. Increase Fuel Efficiency and Alternative Fuels
3. Reduce Vehicle Miles Traveled

A FOUR-YEAR PLAN FOR CLIMATE ACTION
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Strategy B: Modernize Maine's Buildings

1. Transition to Cleaner Heating and Cooling Systems, Efficient Appliances
2. Accelerate Efficiency Improvements to Existing Buildings
3. Advance the Design and Construction of New Buildings
4. Advance the Design and Promote Climate-Friendly Building Products
5. "Lead by Example" in Publicly Funded Buildings
6. Investigate a Renewable Fuel Standard
7. Replace Hydrofluorocarbons with climate-friendly alternatives

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Strategy C: Reduce Carbon Emissions in Maine's Energy and Industrial Sectors through Clean-Energy Innovation

1. Ensure Adequate Affordable Clean-Energy Supply
2. Initiate a Stakeholder Process to Transform Maine's Electric Power Sector
3. Accelerate Emissions Reductions of Industrial Uses and Processes
4. Encourage Highly Efficient Combined Heat and Power Facilities

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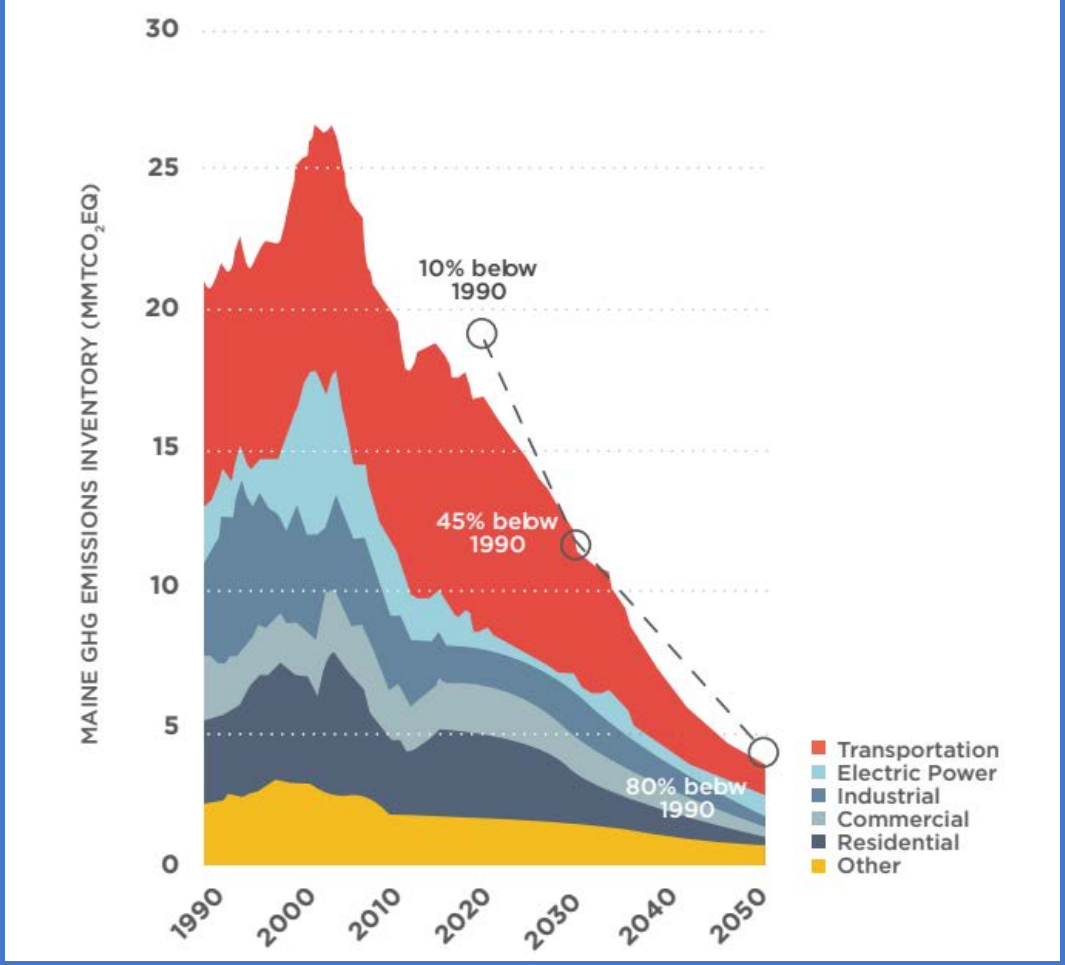
Emissions Modeling

Potential Pathway

- By 2030, total emissions are equal to the target of 45% 1990 levels
- Total emissions in 2050 are 82% below 1990 levels



Data source: Synapse Energy Economics

Reducing Carbon Emissions- Key Actions

Sector	Metric	2025	2030	2050
Transportation	Number of Light-duty EVs on the Road	41,000	219,000	904,000
	EV Share of New Light-duty Vehicle Sales	28%	85%	100%
	Reduction in Light-duty VMT per Vehicle	10%	20%	20%
	ZEV Share of New Heavy-duty Vehicle Sales	12%	55%	100%
	Reduction in Heavy-duty VMT per Vehicle	2%	4%	4%
Buildings	Number of Households with Retrofit Heat Pumps (installed after 2018) and Legacy Fossil Systems	80,000	130,000	26,000
	Number of Households with Whole-Home Heat-Pump Systems	35,000	116,000	487,000
	Newly Weatherized Householdsm (after 2019)	17,000	35,000	105,000
All	GHG Emissions (MMT)	14.50	11.67	3.72
	Emissions Reduction from 1990 Levels	32%	45%	82%

Data source: Maine Department of Environmental Protection 8th Report on Progress toward GHG Reduction Goals

Strategy D: Grow Maine's Clean Energy Economy: Protect Our Natural-Resource Industries

1. Take Advantage of New Market Opportunities
2. Grow Clean-Energy Jobs and Businesses in Maine

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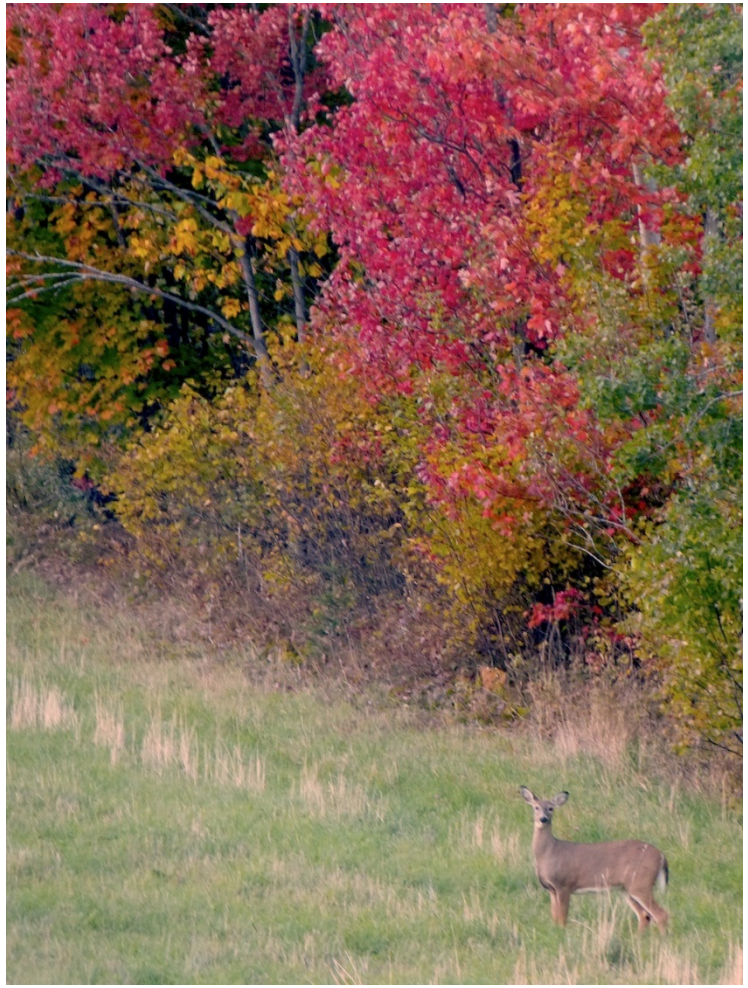
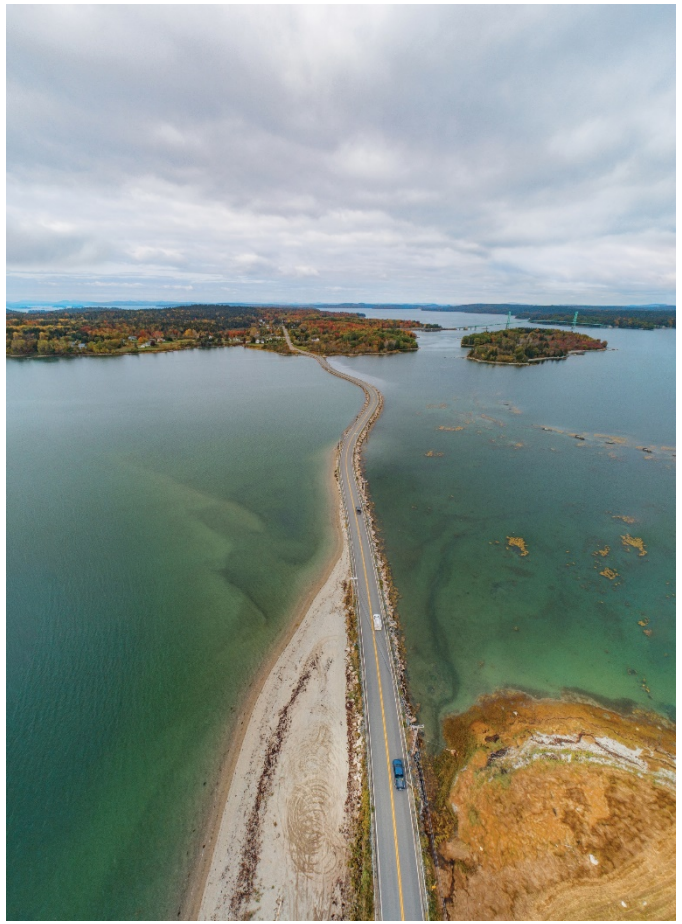
Strategy E: Protect Maine's Environment and Working Lands and Waters: Promote Natural Climate Solutions and Increase Carbon Sequestration



1. Protect Natural and Working Lands and Waters
2. Develop New Incentives to Increase Carbon Storage
3. Expand Outreach to Offer Information and Technical Assistance
4. Enhance Monitoring and Data Collection to Guide Decisions

Strategy F: Build Healthy and Resilient Communities

1. Empower Local and Regional Community Resilience Efforts
2. Adopt Official Sea-Level Rise Projections
3. Emphasize Resilience Through Land-Use Planning Tools
4. Strengthen Public-Health Monitoring, Education, and Prevention



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Strategy G: Invest in Climate-Ready Infrastructure

1. Assess Climate Vulnerability and Provide Climate-Ready Design Guidance
2. Establish a State Infrastructure Adaptation Fund to support municipal and regional projects

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Strategy H: Engage with Maine People and Communities about Climate Impacts and Program Opportunities

1. Raise Awareness about Climate-Change Impacts and Opportunities
2. Support Public Education Offerings
3. Start the "Maine Climate Corps" for Climate-Related Workforce Development
4. Recognize Climate Leadership by Maine Businesses and Organizations

Next steps – Maine Climate Council

- Implementation
- Monitoring & Metrics
- Workgroups, communications
- New plan every 4 years

Learn More
& Read the Full Plan

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