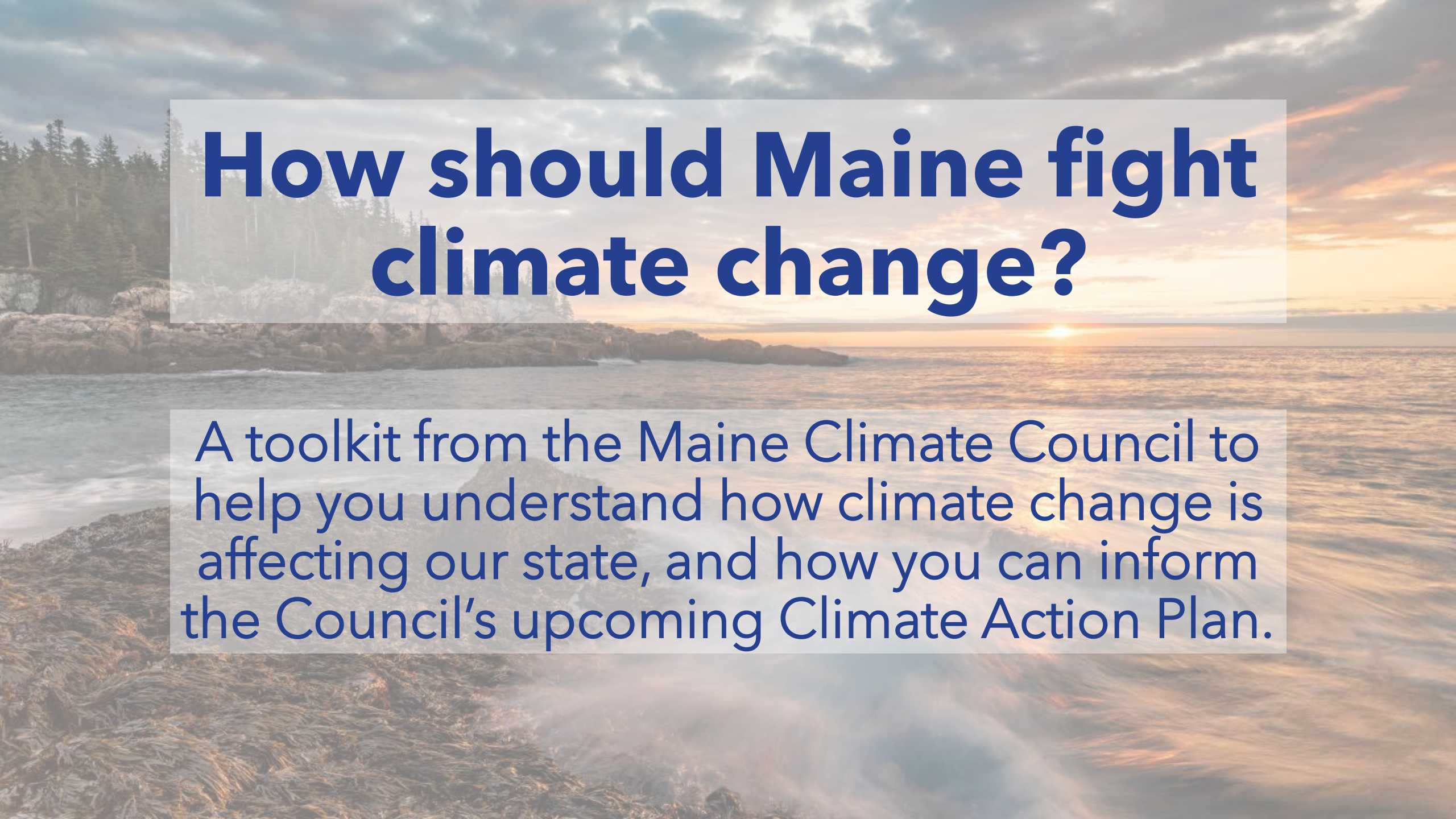


How should Maine fight climate change?

A toolkit from the Maine Climate Council to help you understand how climate change is affecting our state, and how you can inform the Council's upcoming Climate Action Plan.

Part I: Climate Change in Maine

From increasing land and ocean temperatures, to rising sea levels, more frequent severe storms, increased environmental damage, and public health maladies, Maine scientists have catalogued the significant effects of rising greenhouse gases and climate change on our state.

"Maine's annual temperature has increased 3.2 degrees F since 1895, and extreme heat days are expected to be two to four times more frequent by 2050"

"Warming temperatures bring both potential benefits from longer growing seasons and lower heating costs, but also potential damages from heat stress to workers, crops and livestock, and greater cooling costs."

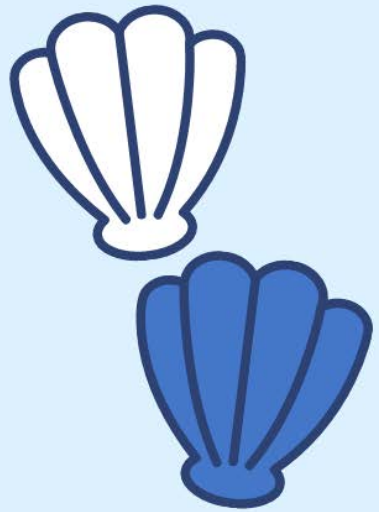
climatecouncil.maine.gov

"Maine's annual precipitation (rain and snowfall) has increased more than 6 inches since 1895, and extreme precipitation events (1" to 4" or more) are becoming more frequent."

By 2050, Maine will likely see between 1.1 and 1.8 feet of relative sea level rise, and potentially between 3.0 and 4.6 feet of sea level rise by the year 2100. A 1-foot increase in sea level in the future will lead to a 15 fold increase in the frequency of "nuisance" flooding.

"Iconic Maine species such as moose, Canada lynx, loons, boreal chickadees, eastern brook trout, saltmarsh sparrows and Atlantic puffins are under stress from climate change."

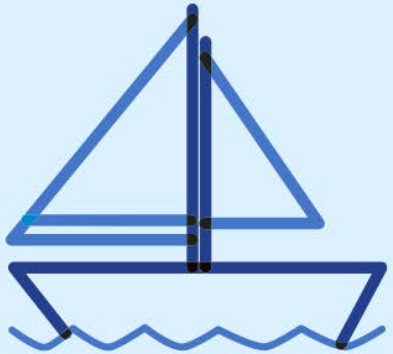
"Ocean acidification will heavily impact marine organisms that produce calcium carbonate to build shells, such as scallops, clams, mussels, and sea urchins."



climatecouncil.maine.gov

"All sectors of Maine's economy -- from energy to agriculture, forestry, fishing, and tourism – will feel the effects of climate change, such as warmer temperatures, more rain and overall extreme weather, and rising sea levels. Sea-level rise will increase the incidence of flooding and damage to property and infrastructure."

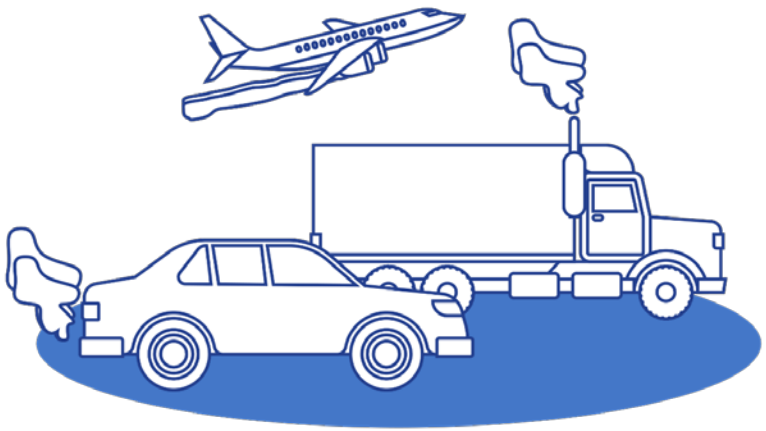
"Maine's natural environment is essential to the state's multi-billion-dollar tourism industry, which relies heavily on outdoor and recreational activities. Favorite activities of visitors – such as skiing or snowmobiling in the winter, or surfing and sailing in the summer – are vulnerable to the changing temperature, precipitation, and sea level rise trends."



"For Maine seafood harvesters, climate change is expected to reduce not only regional catches and revenue but also have a ripple effect through county-level wages and employment. In 2018, commercial fishing employed nearly 30,000 Maine people and was valued at about $637 million."

"Adapting to climate change does broach new economic opportunities, such as growing renewable energy sources, like land- and ocean-based wind power, solar, and biofuels."

climatecouncil.maine.gov



54%

19%

11%

9%

7%

TRANSPORTATION • RESIDENTIAL • COMMERCIAL • INDUSTRIAL • ELECTRIC POWER

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

CLIMATE COUNCIL GOALS

12.01.20
Climate Action Plan Delivered

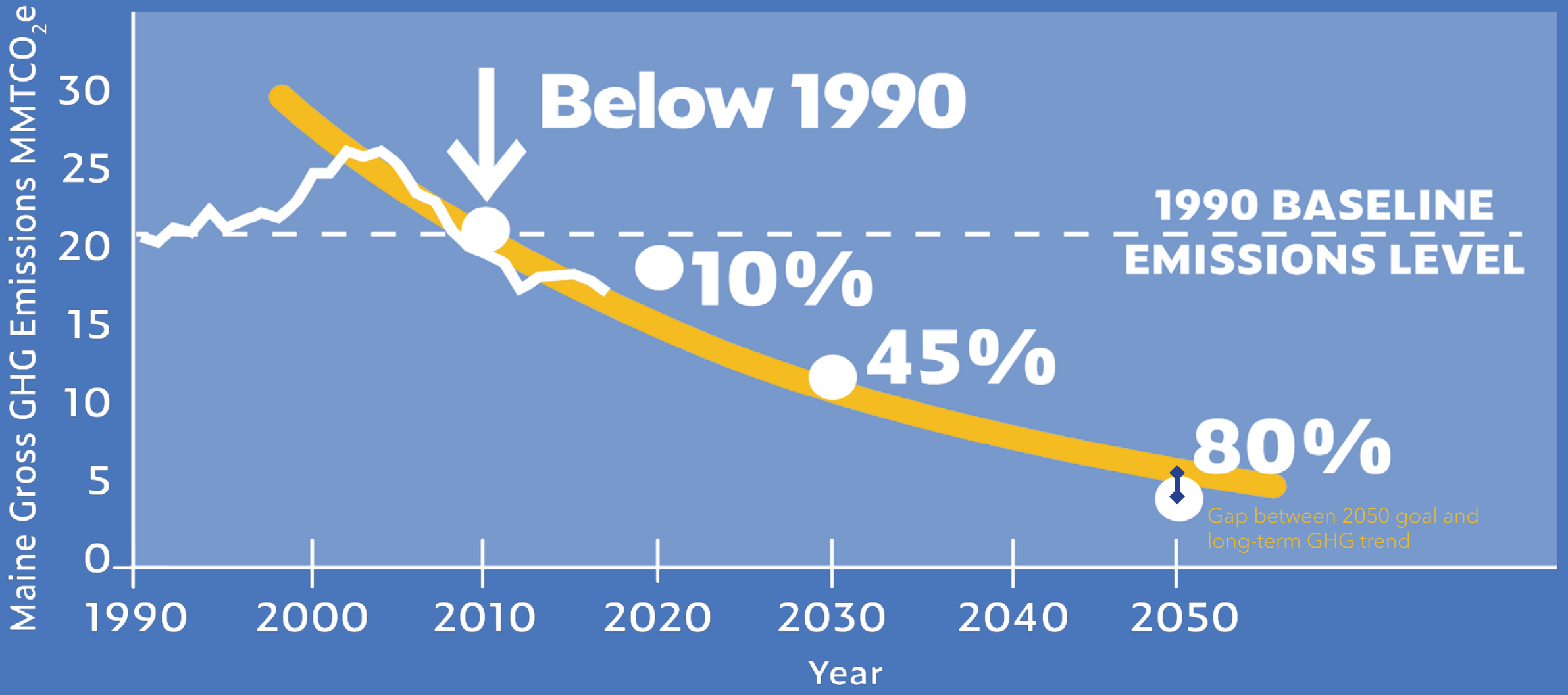
ACHIEVE STATE CARBON NEUTRALITY BY 2045

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

45%
BELOW 1990 LEVELS BY 2030

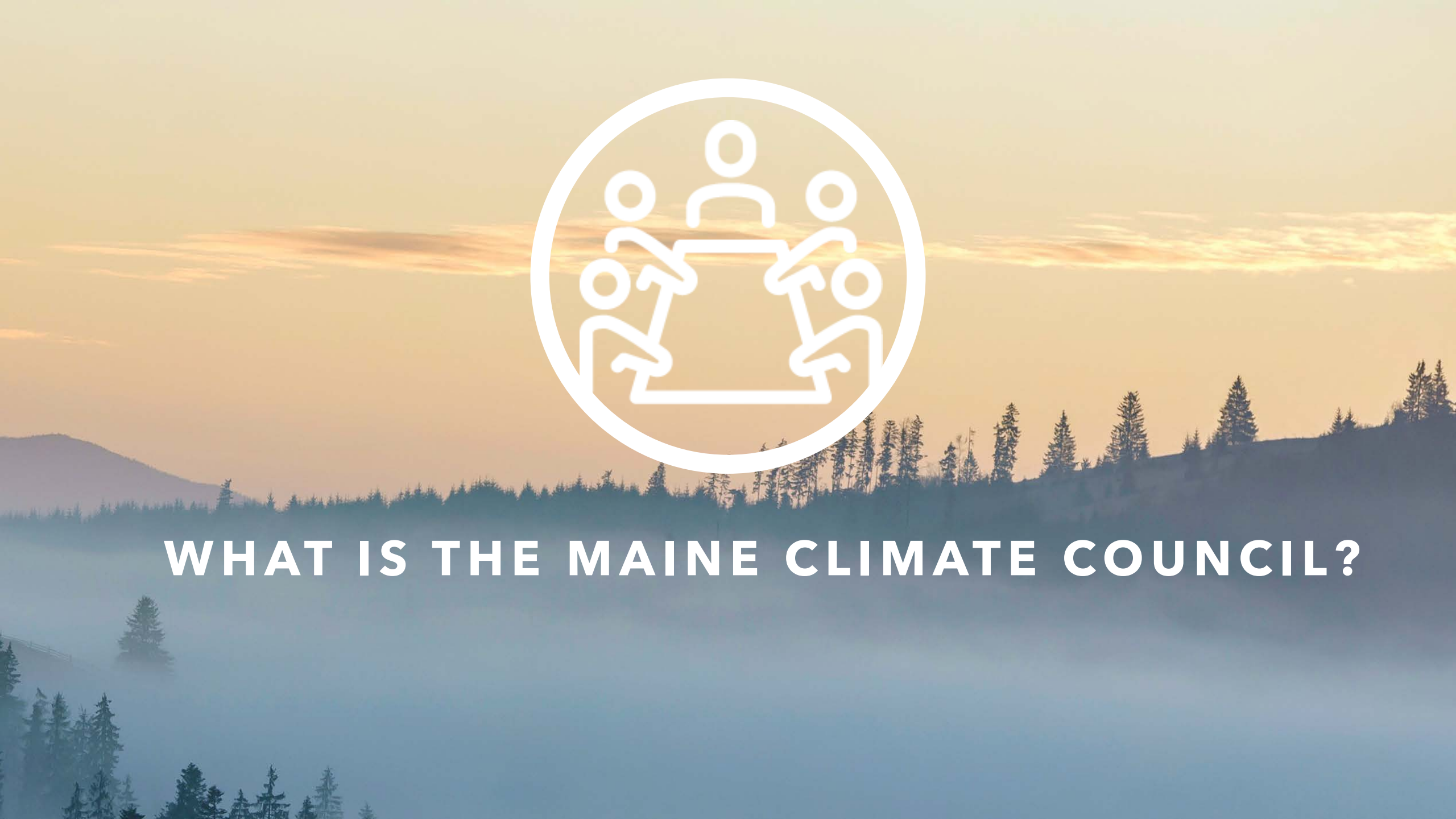
80%
BELOW 1990 LEVELS BY 2050

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



While Maine has made progress in reducing its gross greenhouse gas emissions – and is on track to meet our 45% reduction by 2030 goal – we still have far to go.

Data source: Maine DEP, 2020. Long-term trend is an extended best-fit curve of GHGs between 2002 and 2017

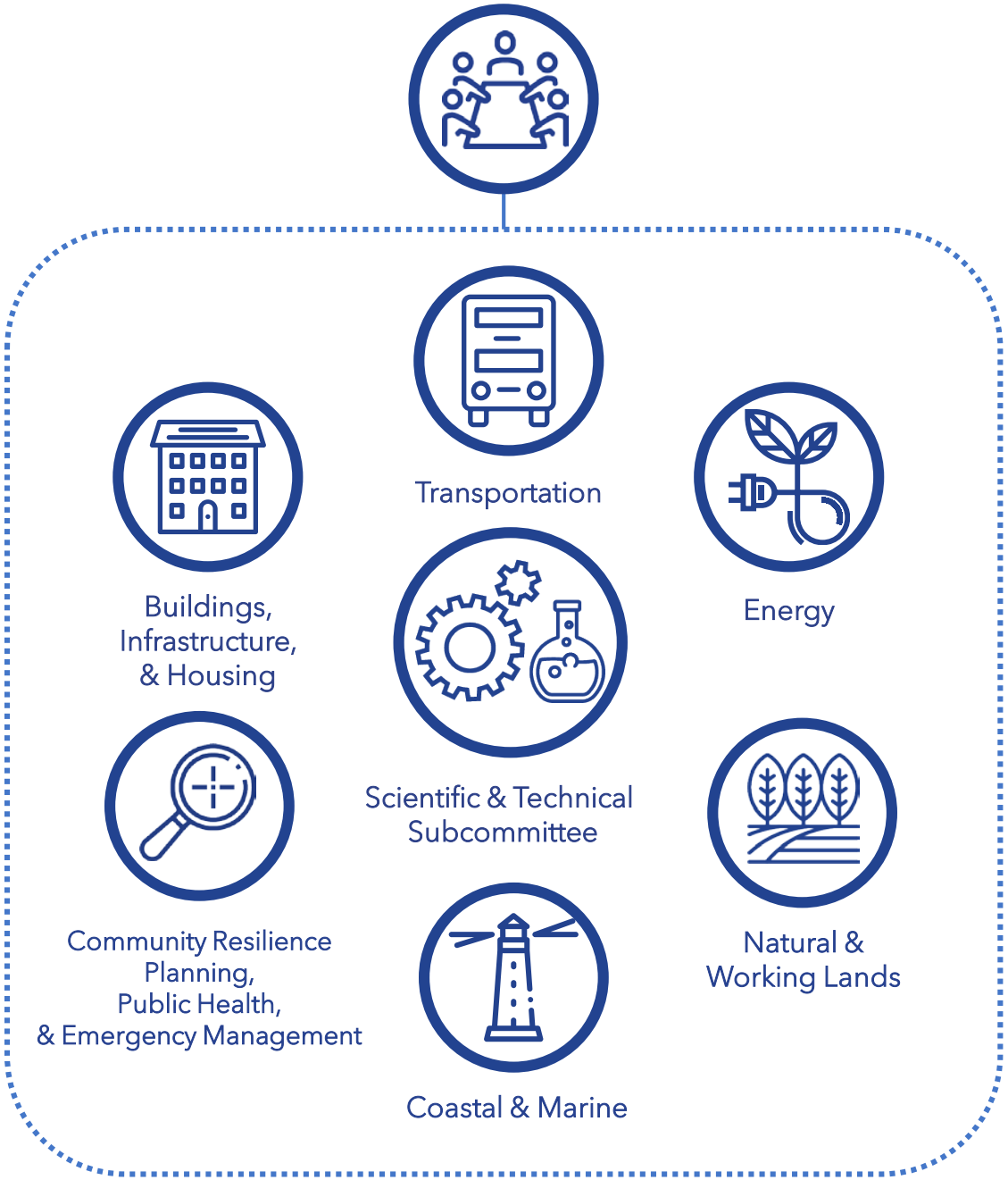


WHAT IS THE MAINE CLIMATE COUNCIL?

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.

They're joined by an expert Scientific and Technical Subcommittee responsible for identifying the impacts of climate change in Maine.



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

YOUR VOICE IS NOW NEEDED.
HELP US DETERMINE THE PRIORITIES FOR THE CLIMATE ACTION PLAN.

STEP 1: READ THE CLIMATE STRATEGIES

Six working groups – joined by an expert Scientific and Technical Subcommittee – have issued recommended strategies for the Council for achieving Maine's climate goals.

STEP 2: DISCUSS THEM WITH YOUR FAMILY AND FRIENDS.

Using our general questions about climate change in Maine as a prompt, consider the strategies of each working group and discuss what you think the priorities are for Maine.

STEP 3: SHARE YOUR ANSWERS WITH THE MAINE CLIMATE COUNCIL

Note down answers or suggestions and send them to the Climate Council via survey, email or mail.

climatecouncil.maine.gov

Part II: Climate Strategies

Maine Climate Council
General Discussion Questions

1. On a scale of one to ten, how important to you is the issue of climate change?
2. Have you noticed any changes in the environment around you due to climate change?
3. What potential climate change risks to your community concern you the most?
4. What aspects of your community are you most concerned will be harmed by climate change?
5. What benefits to fighting climate change, such as improving public health or growing the economy, mean the most to you?
6. Have recent global and national events changed your perspective on climate change? If so, how?
7. Are there energy or climate related actions you'd like to take personally or in your community?
8. Is there anything else you'd like to tell the Climate Council?

climatecouncil.maine.gov

Maine Climate Council
General Discussion Responses & Notes

climatecouncil.maine.gov

About Buildings, Infrastructure, and Housing

- Heating, cooling and lighting of buildings is responsible for 30 percent of Maine's greenhouse gas emissions. Residential homes emit 19 percent; commercial buildings are 11 percent.
- Many of the 550,000 existing homes in Maine are aging and inefficient, with 56 percent having been built before 1980. Approximately 20,000 homes since 2010 have been weatherized to increase efficiency, reduce heating bills, and decrease emissions.
- Maine's 61 percent of homes heated by oil is the highest in the country. New high-performance electric heat pumps are 60 percent more efficient than oil burners. Some 45,000 high performance heat pumps and 25,000 heat pump water heaters have been installed in Maine in the past several years to lower emissions and energy bills.
- The most cost-effective time to improve a building's energy efficiency is during construction. New "net zero" efficiency buildings combine energy efficiency and renewable energy generation to create homes with very minimal utility costs and emissions.
- "Embodied carbon" describes energy used to create and manufacture building materials. Wood and other bio-based materials provide a double benefit: they have low embodied carbon (compared to steel, many types of insulation, concrete, and fossil fuel based products), they naturally store carbon, and source wood can be regrown to remove more carbon from the atmosphere. Utilizing more wood products, especially those produced in Maine, for building construction has positive climate and economic benefits.

Buildings, Infrastructure, and Housing Strategies

- **Improve the design and construction of new buildings:** Provide incentives and code requirements that encourage net-zero, renewable energy ready homes and businesses. Provide training to contractors and code enforcement officers to support compliance.
- **Transition to cleaner heating and cooling systems:** Provide incentives to encourage consumers to purchase highly efficient heat pumps, heat pump water heaters, and efficient, modern wood heat.
- **Improve the energy efficiency of existing buildings:** Expanded weatherization programs will reduce emissions and save money for homeowners on utility bills through added storm windows, reduction of air leaks, and supplementing insulation.
- **Promote "Lead by Example" programs in existing and new publicly-funded buildings:** This work would be accomplished by requiring best practices in construction, including building materials selection, heating, cooling and lighting systems, and enhanced efficiency and weatherization.
- **Reduce greenhouse gas emissions from industrial processes:** Support industrial facilities that shift from carbon-intensive fuels to cleaner alternatives. Expand funding for industrial energy efficiency and fuel switching projects and establish a task force to recommend additional long-term strategies in this sector.
- **Modernize Maine's electric grid:** Make buildings part of the solution and ensure the state state's electricity system is ready for increased electricity use by the building and transportation sectors as they convert to electricity procured from clean, renewable sources.

Buildings, Infrastructure, and Housing: Discussion Questions

How would each of these strategies fit your community? (Great, good, neutral or not at all)

- Improve the design and construction of new buildings
- Transition to cleaner heating and cooling systems
- Improve the energy efficiency of existing buildings
- Promote “Lead by Example” programs in existing and new publicly-funded buildings
- Reduce greenhouse gas emissions from industrial processes Modernize Maine’s electric grid

Are there other ideas about Maine’s building, infrastructure and housing to share with the Council?

After reading these strategies, are there actions that you personally would like to be able to take?

Buildings, Infrastructure, and Housing: Responses & Notes

About Transportation

- Transportation is responsible for 54 percent of Maine's greenhouse gas emissions -- the most of any sector. As emissions in other areas declined in recent decades, transportation-related emissions increased, up from 44 percent in 1990. When broken down by type of vehicle, Maine's transportation-related emissions are:
  - 59 percent from light-duty passenger cars and trucks
  - 27 percent from medium and heavy-duty trucks
  - 14 percent from rail, marine, aviation and utility equipment.
- Maine's rural character and moderate emissions from other sectors also makes our transportation emissions disproportionately high compared to other states. The average Maine vehicle travels approximately 12,000 miles per year. An analysis of "Vehicle Miles Driven" in Maine has found that 65 percent of our driving occurs in rural areas, with 35 percent in urban and suburban regions.
- In addition to the emissions from Maine vehicles, Maine's transportation emissions also those from 37 million visitors per year (in 2018).
- A typical gasoline vehicle emits more than 5 tons of carbon dioxide per year. That is more than four times the amount of carbon emissions as an EV that is powered by the production of electricity from the New England electrical grid.
- Increased flooding and storms from climate change cause damage to roadways and other transportation infrastructure, which are often located along the coast and near rivers.

Transportation Strategies

Increase electric vehicle (EV) use: EVs emit significantly less greenhouse gas emissions per mile compared to gas or diesel vehicles, but less than half of 1 percent of vehicles in Maine are electric. EVs have lower operating and maintenance costs, which is a consumer benefit. Charging infrastructure must expand, and incentives to support EV purchases, especially for lower-income and rural residents, must be provided.

Reduce emissions from gas and diesel engines: Expand the use of alternative fuels such as renewable biofuels made from wood biomass and biodiesels (ideally from Maine) from used vegetable oils. Encourage freight companies to participate in the EPA SmartWay program, which helps improve freight efficiency and save money with new technologies such as aerodynamic design, low resistance tires, and reduced idling.

Decrease the number of miles Mainers must drive: Expand broadband Internet access to support remote work, medicine, education, etc.

Enhance public transportation and shared transportation options: Expand public transportation and ride-sharing programs, including creative public transportation options in rural areas.

Reduce commuting: Develop innovative land use development approaches and incentives that allow more Mainers to live, work, shop, and go to school in areas that don't require long commuting distances.

Adapt critical transportation infrastructure for climate change impacts: Rising sea levels, flooding increases and extreme storms are affecting Maine, leaving infrastructure like roads, bridges, ports, airports vulnerable. Strengthen and adapt infrastructure to withstand these challenges.

Transportation: Discussion Questions

How would each of these strategies fit your community? (Great, good, neutral or not at all)

- Increase electric vehicle (EV) use
- Reduce emissions from gas and diesel engines
- Decrease the number of miles Mainers must drive
- Enhance public transportation and shared transportation options
- Reduce commuting
- Adapt critical transportation infrastructure for climate change

Are there other ideas about transportation in Maine to share with the Council?

After reading these strategies, are there actions that you personally would like to be able to take?

Transportation: Responses & Notes

About Energy

- Maine's climate goals will require sectors with high greenhouse gas emissions, such as transportation and heating, to shift energy sources from fossil fuels to electricity. It is then essential that Maine’s electricity is increasingly produced by clean, low-carbon resources.
- Maine’s domestic electricity generation is largely from renewable resources, with 75 percent from water (hydropower), wood, and wind, although some of that power is sold outside of Maine. Maine is part of a regional electricity grid, which has historically utilized coal and oil sources, both high greenhouse gas emitters. Over the last ten years, the regional grid has begun to move away from these sources toward natural gas and renewables.
- A renewable portfolio standard (RPS) establishes a percentage of electricity that a utility is required to purchase from renewable resources. To encourage more lower-emission electricity generation, Maine has increased the state RPS from 40% to 80% by 2030, with a goal of 100% clean energy by 2050. Additionally, incentives for small-scale renewable energy generation and energy storage development were created by law in 2019. Storage development, like large-scale batteries, can help the electric grid accommodate increased demand.
- Maine’s clean energy resources provide an significant opportunity to embrace energy innovations that can drive economic growth. As overall demand for electricity increases, continued efforts must also encourage energy efficiency, and support shifts of usage away from high-use periods through demand management and "load flexibility" strategies. This will help to make the grid more reliable and reduce costs.

Energy Strategies

Ensure adequate affordable clean energy supply to meet Maine's energy and climate goals: Require additional purchases of clean energy supply and develop targets for offshore wind, smaller distributed energy resources like solar located at homes and businesses, and energy storage. Carefully consider siting of future energy assets and engage the public and stakeholders early in the process.

Transition and modernize Maine's electric grid: Effective preparation for increased electricity usage requires a modernized electric grid, energy systems, and policies, while ensuring it is done efficiently and affordably.

Encourage CHP facilities: Highly efficient Combined Heat and Power (CHP) facilities capture heat from electricity generation to provide steam or hot water for use in space heating and cooling, water heating, and industrial processes to increase overall facility efficiency. Incentives for CHP can reduce emissions and support existing industrial businesses and large organizations.

Institute a Renewable Fuel Standard (RFS) for all heating fuels: Require a percentage of heating fuels be renewable, such as biofuels made from wood biomass and biodiesels from used vegetable oils, in order to reduce emissions from home heating and industrial process fuels.

Ensure equitable transitions and benefits in shift to a lower carbon economy: Clean energy investments have potential for increased good-paying, sustainable economic opportunities in Maine, if done right. As Maine shifts to a cleaner electricity sector, efforts must be made to reduce negative impacts on residents and businesses, particularly in vulnerable populations. Programs for rural and low-to-moderate income households to afford new technologies should be expanded. Careful consideration should be given to ensure a just transition for Maine workers.

Energy: Discussion Questions

How would each of these strategies fit your community? (Great, good, neutral or not at all)

- Ensure adequate affordable clean energy supply to meet Maine's energy and climate goals
- Transition and modernize Maine's electric grid
- Encourage CHP facilities
- Institute a Renewable Fuel Standard (RFS) for all heating fuels
- Ensure equitable transitions and benefits in shift to a lower carbon economy

Are there any ideas about Maine's energy strategies you would like to share with the Council?

After reading these strategies, are there actions that you personally would like to be able to take?

Energy: Responses & Notes

About Community Resilience, Public Health and Emergency Management

- Climate change is already harming Maine communities, infrastructure, natural systems and economies. Coastal towns and working waterfronts are seeing flooding and flood damage more often.
- Inland areas are seeing increased heavy rainstorms and seasonal shifts affecting everything from growing seasons to winter sports.
- Maine people should also be concerned about increased asthma rates from heat and high ozone days, fishing closures due to pollution and algae blooms, and rising rates of tick-borne diseases.

➢As Maine reduces greenhouse gas emissions to slow the cause of climate change, our people, businesses, natural resources must also be protected from the effects of climate change now occurring.

➢"Resilient" communities are ready to withstand the effects of climate change, and have worked with their citizens, businesses, infrastructure and systems on ways to prevent costly climate-related damage.

➢Many communities need state support and partnership for important resilience planning. A 2018 study found $1 invested in prevention or preparation for natural disaster, such as a storm, flood or fire, saves about $6 in rebuilding. Not investing in the long-term future of Maine communities and people risks much greater costs and complicated recoveries in the future.

Community Resilience, Public Health and Emergency Management Strategies

Update and modernize Maine's land use regulations: Provide the best available science about sea level rise and flooding impacts for communities to make decisions about development. Reduce the regulatory burdens for projects that help communities become more resilient.

Provide data and technical assistance to communities about the impacts of climate change: Tailor assistance to Maine's various regions and communities. For example, regional resilience assistance can allow many communities solve shared problems at one time.

Provide funding for municipal infrastructure projects that help communities plan for and respond to climate change: Create a state fund to help towns meet local cost requirements for federal funds to repair and upgrade infrastructure. Improve ability to use existing funding options like tax-incentives and bonds. Create incentives for communities to cooperate on climate resilience.

Monitor and educate about the public health impacts of climate change: Inform Maine people about health risks from climate change. Invest in monitoring and reporting of air quality, freshwater and marine water quality, and diseases carried by insects (like Lyme disease). Expand public education about how climate change affects health, and resources to help people to manage risks including air quality alerts, high heat and cold warnings, and water contamination, disease, and health advisories.

Reduce health impacts from high intensity weather events: Storms, floods, fires, and droughts can cause injury, property damage, and costly recovery. Protect drinking water sources. Prevent sewage overflows and the associated harms to fresh and marine water bodies. Identify municipal drinking water systems and private wells that are in danger of contamination from flooding.

Ensure Maine's healthcare systems are prepared for climate change: Support healthcare systems to plan for extreme weather events including protecting their buildings, patients, and employees, and preparing for larger numbers of injured people seeking care during a storm emergency. Create incentives for Maine's major healthcare systems to reduce their greenhouse gas emissions.

Community Resilience, Public Health and Emergency Management: Discussion Questions

How would each of these strategies fit your community? (Great, good, neutral or not at all)

- Update and modernize Maine's land use regulations
- Provide data and technical assistance to communities about the impacts of climate change
- Provide funding for municipal infrastructure projects that help communities plan/respond to climate change
- Monitor and educate about the public health impacts of climate change
- Reduce health impacts from high intensity weather events
- Ensure Maine's healthcare systems are prepared for climate change

Are there any ideas about Maine's community resilience, public health and emergency management strategies you would like to share with the Council?

After reading these strategies, are there actions that you personally would like to be able to take?

Community Resilience, Public Health and Emergency Management: Responses & Notes

About Coastal and Marine

- The Gulf of Maine is warming faster than 99 percent of the world's oceans. As it warms and loses its subarctic characteristics, some species are moving northward and disappearing from traditional fishing grounds, while temperate species from the south invade.
- For Maine seafood harvesters, climate change is expected to reduce their regional catches and associated revenue. This will have a ripple effect on the economy. In 2018, commercial fishing employed nearly 30,000 Maine people and was valued at about $637 million.
- Climate change also worsens ocean acidity, levels of which have already risen 30 percent worldwide and will continue rising alongside growing greenhouse gas levels. Ocean acidification is already impacting some aquaculture operations in Maine and will increasingly have negative effects on marine organisms that produce calcium carbonate to build shells, such as oysters, scallops, clams, mussels, and sea urchins.
- Sea level rise caused by climate change will have profound effects on coastal communities. By 2050, Maine is likely to see between 1.1 and 1.8 feet of relative sea level rise, en route toward a potential 3 to 4.6 feet by the year 2100. Just a one-foot increase in sea level will lead to a 15-fold increase in the frequency of "nuisance" flooding.
- Healthy coastal and marine areas provide important benefits to Maine's people, environment, and the economy. They protect communities from severe storms. They take greenhouse gases out of the atmosphere to bury them long-term. Coastal beaches, dunes, salt marshes, and bluffs are likely to experience further erosion, landward movement and land loss due to climate change.

Coastal and Marine Strategies (1/2)

Support Maine's lobster and fishing businesses to prepare and respond to changing environments: Closely monitor species and habitat changes. Provide information about ocean temperature, salinity and acidity changes at the local level. Ensure that Maine fishermen are able to access new market opportunities as species move in response to warming waters.

Expand local marketing opportunities for Maine seafood: Support Maine fishermen by promoting Maine seafood products to local consumers.

Continue to grow Maine's diverse aquaculture sector: Aquaculture offers important economic opportunities for Maine's coastal communities. While continuing to support resilient wild fisheries, Maine should also take steps to catalyze growth in the aquaculture sector.

Collect scientific data to understand the changes to Maine's coastal and marine areas: This includes sea level rise monitoring, ocean temperature and acidity data, and information about native and invasive species, so we can better prepare for the impacts of climate change.

Provide clear information and tools about climate change impacts: This is needed to support Maine's coastal communities, seafood harvesters, shoreside businesses, and working waterfronts in their operational decisions, capital investments, and long-range planning. Establish a Maine Seafood Business Council to work with seafood and marine businesses to understand what data they need to respond to climate change and communicate it effectively.

Coastal and Marine Strategies (2/2)

Protect Maine's working waterfront infrastructure from climate change impacts: Provide technical assistance and funding for municipalities and business owners to plan and invest in working waterfront improvements to prepare for climate effects such as rising sea levels, increased flooding, and large storms.

Store greenhouse gases by conserving and restoring salt marshes and other coastal environments: Salt marshes, seaweeds, and seagrass beds are more effective than even forests for storing carbon. Maine's approximately 5,000 miles of total coastline provides a unique opportunity to store carbon long-term, while also providing benefits such as protecting ocean water quality, providing important wildlife habitat, protecting coastal properties from erosion and flooding, and providing recreational opportunities.

Promote nature-based solutions to protect coastal communities from climate change impacts: Erosion from rising sea-levels and more frequent big storms harms coastal rivers, shorelines, and coastal and marine habitats. Nature-based solutions provide effective and lower-cost protection while restoring coastal and marine wildlife habitats. Healthy seagrass and tidal marshes act as natural barriers to waves. Restoring floodplains, wetlands, and streams provides effective stormwater management. "Living Shorelines" projects, constructed with plants, oyster shells, and other natural materials, protect against coastal erosion.

Coastal and Marine: Discussion Questions

How would each of these strategies fit your community? (Great, good, neutral or not at all)

- Support Maine's lobster and fishing businesses to prepare and respond to changing environments
- Expand local marketing opportunities for Maine seafood
- Continue to grow Maine's diverse aquaculture sector
- Collect scientific data to understand the changes to Maine's coastal and marine areas
- Provide clear information and tools about climate change impacts
- Protect Maine's working waterfront infrastructure from climate change impacts
- Store greenhouse gases by conserving and restoring salt marshes and other coastal environments
- Promote nature-based solutions to protect coastal communities from climate change impacts

Are there any ideas about Maine's coastal and marine strategies you would like to share with the Council?

After reading these strategies, are there actions that you personally would like to be able to take?

Coastal and Marine: Responses & Notes

Natural and Working Lands: Introduction

- With forests covering more than 89 percent of our state, Maine is the most heavily forested state in the country. Our natural and working lands are the foundation for significant sectors of Maine's economy, including agriculture, forestry and wood products, outdoor recreation and tourism. The vast majority of working and natural lands in Maine -- 93 percent -- are privately owned. For generations, these lands have provided good-paying jobs, food, wildlife habitat, and opportunities for recreation.
- Forests, farmlands, and natural areas, including wetlands, also provide essential natural benefits such as drinking water protection, flood hazard prevention, and carbon storage. Maine's working forests, natural lands, and agricultural lands are estimated to capture around 13 million metric tons of $CO_{2equivalent}$ per year, an amount equal to 75 percent of Maine's greenhouse gas emissions.
- Today, Maine's natural and working lands are threatened by climate change and unplanned development in rural areas. Temperature and precipitation changes will impact forest composition and the habitat and biodiversity of plant and animal species. There is an increasing risk of wildfires, while new pests, diseases, and invasive species threaten overall forest health and many types of crops. Increasing extreme storms cause erosion, soil loss, and water quality issues.
- Loss of forest and farmland to development (currently estimated at approximately 10,000 acres lost per year) reduces the potential for carbon storage and the many additional benefits those working lands provide.

Natural and Working Lands Strategies (1/2)

Protect and conserve working forests, farms, and natural lands: Establish a dedicated, sustained funding source to provide permanent protection for forest lands, farmlands, and areas of exceptional biodiversity via conservation easements and fee acquisition. Revise existing state and federal land conservation programs to include projects that store carbon, reduce greenhouse gas emissions and prepare for climate change impacts.

Provide financial incentives and technical support: Innovative land management, improved infrastructure, and natural climate solutions that increase carbon storage, reduce greenhouse gas emissions, will help farmers, loggers, and landowners prepare for climate change impacts.

Promote the use of Maine's value-added forest products: Develop and enhance marketing programs for climate-friendly bio-based wood products including Cross Laminated Timber (CLT) and wood fiber insulation. Encourage the use of efficient modern wood heat and power technology that uses forest product waste from logging operations, paper and lumber mills.

Make investments to increase wildlife crossings and aquatic organism passage: Improve aquatic connectivity at private and publicly owned dams and roads with bridges and culverts that reduce flooding damage, support habitat functionality, and respond to sea level rise.

Natural and Working Lands Strategies (2/2)

Strengthen Maine's food systems: Make it so more food can be produced by Maine farmers and processed locally, distributed efficiently, and priced affordably.

Prioritize the retention of Maine's valuable working and natural lands: Support comprehensive, accurate, and timely review of land and water resources and project permitting under environmental regulations to ensure smart development, shoreland protection, and appropriate renewable energy project placement.

Increase climate education related to forestry, agriculture and natural lands: This would be through public school curricula, consumer awareness, and landowner information.

Strengthen research, development, and monitoring of natural and working land practices: Establish the University of Maine as the coordinating hub for partnerships and research on forestry, agriculture, and natural land-related climate concerns in Maine, in order to reduce greenhouse gas emissions and prepare for climate change impacts.

Natural Working Lands: Discussion Questions

How would each of these strategies fit your community? (Great, good, neutral or not at all)

- Protect and conserve working forests, farms, and natural lands
- Provide financial incentives and technical support
- Promote the use of Maine's value-added forest products
- Make investments to increase wildlife crossings and aquatic organism passage
- Strengthen Maine's food systems
- Prioritize the retention of Maine's valuable working and natural lands
- Increase climate education related to forestry, agriculture and natural lands
- Strengthen research, development, and monitoring of natural and working land practices

Are there any ideas about Maine's natural and working lands strategies you would like to share with the Council?

After reading these strategies, are there actions that you personally would like to be able to take?

Natural Working Lands: Responses & Notes

The council works for all of Maine.
All of Maine has a voice in our recommendations.

Share Your Thoughts:

Ways to share:

1. Answer the WG strategy surveys at https://climatecouncil.maine.gov/surveys
2. Email answers to maineclimatecouncil@maine.gov
3. Mail your thoughts to us by August 21, 2020 at:

Maine Climate Council c/o
Governor's Office of
Policy Innovation + the Future
181 State House Station
Augusta, Maine 04333-0181

Please let us know your zip code and email address so we can keep in touch!

Thank You!