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Maine Climate Council

Annual Report to the Legislature

January 15, 2021

On December 1, Governor Mills [welcomed](#) the release of [Maine Won't Wait \(PDF\)](#), the four-year Climate Action Plan from the Maine Climate Council, and announced actions her Administration will take to protect Maine people and communities and spur economic growth in the fight against climate change.

Maine Won't Wait calls for decisive steps including bolstering the electric vehicle market in Maine and reducing vehicle miles traveled, expanding the number of heat pumps installed in Maine homes, doubling home weatherization rates, and transitioning to clean power to curb harmful greenhouse gas emissions. It also highlights the powerful role Maine's natural and working lands and waters have to sequester carbon emissions as a solution to meet Maine's aggressive, nation-leading carbon neutrality goal.

The plan details climate action steps to create economic opportunities for Maine, such as encouraging the growth of the clean energy economy; creating incentives for consumers, businesses and industries to invest in energy efficiency; and supporting innovative construction materials and local agricultural systems that rely on Maine forest products, farms, and the fishing and aquaculture industry to build and feed the state into the future.

Lastly, *Maine Won't Wait* focuses on preparing our communities and people to better withstand the rapidly accelerating impacts from climate change. The economic disruption from the COVID-19 pandemic makes the job-creating potential from climate action even more imperative. The plan highlights the need for a comprehensive and equitable approach to climate action as new programs and allocation of resources are considered.

The four-year climate action plan, *Maine Won't Wait* is available at:
<https://climatecouncil.maine.gov/>.

Climate Planning Process

On June 26, 2019, Governor Mills and the Legislature created the Maine Climate Council, an assembly of scientists, industry leaders, bipartisan local and state officials, and engaged citizens, to develop a four-year plan to put Maine on a trajectory to reduce greenhouse gas emissions by 45% by 2030 and at least 80% by 2050. By Executive Order of Governor Mills, the state must also achieve carbon neutrality by 2045.

The [39-member Climate Council](#) also includes an expert Scientific and Technical Subcommittee responsible for identifying the impacts of climate change in Maine, and six working groups to recommend strategies to the Council for achieving Maine's climate goals. Altogether, more

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than 230 volunteer [members](#) helped to develop the plan. Bipartisan members of the House and Senate from the Maine Legislature were appointed to the Maine Climate Council as well as each of the working groups and the Scientific and Technical Subcommittee. Going forward, a new Equity Subcommittee of the Maine Climate Council will support planning and implementation of climate strategies to ensure benefits across diverse populations and geographies of the state. In addition, the group will support implementation strategies and metrics to ensure benefits for low-income groups, seniors, and diverse and especially impacted populations.

The council, its working groups and Scientific and Technical Subcommittee held more than 100 meetings over 14 months—despite the pandemic, while working from home and straining internet connections, with children learning remotely and dogs barking in the background—considering and recommending actions to combat climate change. This was no ordinary council operating in no ordinary times. The Council and Working Groups shifted their work to public Zoom meetings in March, and continued work through the summer and fall of 2020.

The six working groups of the Climate Council—1) Transportation; (2) Buildings, Infrastructure and Housing; (3) Energy; (4) Community Resilience Planning, Emergency Management and Public Health; (5) Coastal and Marine; and (6) Natural and Working Lands—delivered their draft recommendations in June 2020. The details of the working group strategies, as well as the past minutes and materials from their committee meetings, are available at:

<https://climatecouncil.maine.gov/strategies>.

The Maine Climate Council was responsible for integrating and prioritizing the working groups' recommendations for the climate action plan. Video recordings of Maine Climate Council meetings and webinar presentations are available at:

<https://www.maine.gov/future/initiatives/climate/climate-council/mcc-meetings>.

Data and Analysis

The work of the Maine Climate Council is informed by scientific and technical analyses including:

- A summary of the current and future impacts of climate change in Maine by the Maine Climate Council Science and Technical Subcommittee ([Scientific Assessment of Climate Change and Its Effects in Maine](#))
- An analysis of the costs and benefits of the strategies recommended by the Working Groups (*Assessing the Impacts Climate Change May Have on the State's Economy, Revenues, and Investment Decisions*, an analysis by Eastern Research Group and Synapse Energy Economics). The report includes 4 volumes and a [Summary report](#)
 - [Volume 1, Vulnerability Mapping](#): A mapping analysis that identifies vulnerable communities, geographies, and economic sectors.

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- [Volume 2, Cost of Doing Nothing Analysis](#): Estimates of losses that the State of Maine and its citizens could incur if the State does not take action to prevent or prepare for climate change. The cost of not adapting to a changing climate is large and will accelerate over time, with flooding serving as the largest overall threat.
- [Volume 3, Maine Emissions Analysis](#): An energy use and emissions baseline based on current state and regional policies, as well as an assessment of options for meeting Maine’s energy needs (and allowing economic growth) while reducing greenhouse gas emissions.
- [Volume 4, Economic Analyses of Adaptation and Mitigation Strategies](#): Economic analyses to provide context for the majority of the adaptation and mitigation strategies developed by the Maine Climate Council.
- An [Equity Assessment of Working Group Recommendations](#) conducted by the University of Maine's Senator George J. Mitchell Center for Sustainability Solutions
- [Strengthening Maine's Clean Energy Economy](#), by the Governor’s Energy Office (GEO) and Governor’s Office of Policy Innovation and the Future (GOPIF), provides specific strategies to leverage Maine’s renewable energy resources and energy efficiency services to recover and grow Maine’s economy.

Public and Stakeholder Engagement

Public comment was sought throughout the entire climate planning process. The working groups each included 30-40 members and stakeholders with diverse perspectives and expertise, and the working group process to develop the draft recommendations was conducted via public meetings, calls, surveys, and individual and organizational input.

Over the summer of 2020, the Maine Climate Council received more than 4,400 responses through feedback surveys on its website, <https://climatecouncil.maine.gov/>. Members of the public were invited to learn about the impacts of climate change on the state, read the strategies recommended by the working groups, and provide feedback through a series of short surveys. Residents from almost three quarters of Maine communities submitted comments.

Significant public outreach was conducted, utilizing public online meetings, social media promotion and email formats. Online formats do limit engagement for those with no or poor internet access, and the council and working groups worked to utilize other stakeholder processes and representatives to gather feedback.

Staff and working group members also conducted webinar presentations to groups of stakeholders. The Maine Climate Council recognizes that some communities may be harder to reach and will continue to work with key partners—including the newly established Equity Subcommittee—to reach groups that may be underrepresented in the climate process and/or experience disproportionate impacts, such as lower-income and rural residents, older adults, tribal communities, people of color, and New Mainers. The Equity Subcommittee of the Maine

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Climate Council will support ongoing planning and implementation of Maine's climate strategies to ensure shared benefits across diverse populations of Maine people and to understand any concerns for implementation.

Private funding for the Maine Climate Council and State Climate Work

A two-year, \$250,000 per-year state appropriation was made in the 2020-2021 biennial budget for the work of the Maine Climate Council via the Governor's Office of Policy Innovation and the Future.

In addition, private funds received to date total \$758,500. They include:

- \$185,000 raised for two-year resiliency staffing support
- \$200,000 raised for modeling and data support
- \$70,000 raised for general support of the Maine Climate Council
- \$133,000 grant from the UN Foundation for support of staffing support for two-years
- \$40,000 raised for communications support
- \$130,500 for pilot community resilience project

(Please see the attached list of donors, for full detail on the private donations received).

The private funds for the Maine Climate Council, spent through December 30, 2020 include:

- Resiliency staffing, benefits, and costs \$116,191.22 (limited period position)
- Cost-benefit analysis consulting costs \$90,000 (paid to Eastern Research Group))
- Equity assessment \$4,920 (paid to the University of Maine)
- Community resilience research consultant \$9,900 (paid to Charles Haeuser)

Additional funds have been committed (but not yet spent) on an additional limited period position to support climate mitigation work in transportation and buildings; the continuation of the limited period resilience position; the community resilience pilot program for municipalities; and additional communications on the climate plan and program.

Maine Won't Wait Strategies

The Maine Climate Action Plan has 4 primary goals: Reduce Maine's greenhouse gas emissions; Avoid the impacts and costs of inaction; Foster economic opportunity and prosperity; and Advance equity through Maine's climate response.

The plan includes the following 8 bold strategies to achieve these goals:

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Strategy A: Embrace the Future of Transportation in Maine

Transportation is responsible for 54% of Maine’s annual greenhouse gas emissions. To meet our emissions-reductions goals by 2030 and 2050, our state must pivot to the future by pursuing aggressive transition strategies and innovative solutions within this important sector.

This strategy includes actions to accelerate Maine’s transition to electric vehicles, increase fuel efficiency and use of alternative fuels, and reduce vehicle miles traveled. Deploying broadband, encouraging development that locates schools, workplaces and shopping opportunities near where people live, as well as increasing public transportation funding and public commuting options, will reduce vehicle miles traveled. Greenhouse gas emissions modeling shows that a swift transition to electric vehicles, increasing fuel efficiency, and reducing vehicle miles traveled are all essential components of achieving the greenhouse gas emissions reductions goals, and that the goals cannot be achieved with one component alone.

By reducing carbon dioxide emissions to achieve Maine’s emission reduction goals, there will also be major health benefits from these actions associated with cleaner air from reduced nitrogen oxides, sulfur dioxide and particulate matter.

Strategy B: Modernize Maine's Buildings: Energy Efficient, Smart and Cost-Effective Homes and Businesses.

Heating, cooling, and lighting of buildings are responsible for almost one-third of Maine’s greenhouse gas emissions. Maine can reduce greenhouse gases by modernizing our buildings to use cleaner energy, increase energy efficiency, and utilize lower-carbon building materials.

These actions will also make Maine’s homes and businesses safer, healthier, more comfortable, and more affordable.

This strategy includes actions to transition to cleaner heating and cooling systems and efficient appliances, accelerate efficiency improvements to existing buildings, advance the design and construction of new buildings, and advance the design and promote climate-friendly building products such as mass timber and wood-fiber insulation made in Maine. The state should also “Lead by Example” in publicly funded buildings. Other actions include investigating options for establishing a Renewable Fuels Standard (RFS) for heating fuels and replace Hydrofluorocarbons (HFCs) with climate-friendly alternatives.

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

Sectors with high greenhouse gas emissions, such as transportation and heating, must shift their energy sources from fossil fuels to electricity and low-carbon fuels to achieve Maine’s climate

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goals. This makes it even more essential to produce and consume electricity that is increasingly clean and from lower-emission resources. This transition must be managed effectively to ensure affordability and reliability.

This strategy includes actions to ensure adequate affordable clean-energy supply including an electricity grid where 80% of Maine’s usage comes from renewable generation by 2030, to initiate a stakeholder process to transform Maine’s electric power sector, accelerate emissions reductions of industrial uses and processes, and encourage highly efficient combined heat and power facilities.

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

Climate change threatens vital natural-resource sectors of Maine’s economy, like our forestry, farming, and fishing industries. Climate change will also impact community and economic infrastructure and leading economic sectors like tourism and hospitality — as sea levels rise and warming winters impact iconic Maine places and seasons.

Transitioning to cleaner energy generation and greater energy efficiency offers exciting new economic opportunity. Maine currently spends roughly \$4.4 billion annually on imported fossil fuels. Clean and renewable energy solutions can help keep those energy dollars in Maine, catalyzing a transformative economic impact, while significantly reducing emissions.

This strategy includes actions to take advantage of new market opportunities and support the ability of Maine’s natural resource economies, including forestry, fishing and agriculture, to adapt to climate change impacts, and to grow clean-energy jobs and businesses in Maine.

The Governor has recently announced a goal to more than double Maine’s clean energy and energy efficiency jobs to 30,000 by 2030.

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

Climate change and development are harming Maine’s natural and working lands and waters, which are key to the state achieving its carbon neutrality commitment by 2045. Protecting natural and working lands from development maintains their potential to draw back carbon from the atmosphere, as well as provide important co-benefits. Maine’s coastal and marine areas also store carbon, while supporting our fishing, aquaculture, and tourism industries.

This strategy includes actions to protect natural and working lands and waters including increase by 2030 the total acreage of conserved lands in the state to 30%, to develop new

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incentives to increase carbon storage, expand outreach to offer information and technical assistance to communities, farmers, loggers, and foresters, and enhance monitoring and data collection to guide decisions.

Strategy F: Build Healthy and Resilient Communities

As Maine reduces greenhouse gas emissions to combat climate change, we must also respond to climate impacts occurring now and expected soon. State support for communities to be proactive about understanding, planning, and acting to reduce their risk from climate change is essential.

This strategy includes actions to empower local and regional community resilience efforts, adopt official sea-level rise projections, emphasize resilience through land-use planning and legal tools, and strengthen public-health monitoring, education, and prevention.

Strategy G: Invest in Climate-Ready Infrastructure

Maine must improve the climate readiness and resilience of infrastructure so that it serves Maine better under day-to-day conditions and functions reliably during emergencies.

From flooding to temperature extremes, climate change is already having a negative impact on our roadways and bridges, working waterfronts, water treatment facilities, and utilities. The “Cost of Doing Nothing” analysis makes clear if Maine does not adapt to climate change, losses are expected to be significant to communities, individual property and business owners, and the state. Doing nothing, or putting off much-needed efforts to adapt key infrastructure, will not save money but rather is likely to cost the state and its communities far more in significant property and economic damage losses; straining health care systems during times of crisis due to access issues; and diminishing or compromising disaster responses.

This strategy includes actions to assess climate vulnerability and provide climate-ready design guidance and establish the state infrastructure adaptation fund, which will allow the state to leverage four to ten times more federal funding with a relatively modest investment of state funds.

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

Effective communication about Maine’s climate strategies will be critical to the success of the Maine Climate Action Plan. Highlighting leadership and climate innovations can help people better understand the challenges and the opportunities. Maine students should understand the science of Maine’s changing natural systems and climate and be prepared with the necessary skills to meet future workforce opportunities.

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This strategy includes actions to raise awareness about climate-change impacts and opportunities, increase public education offerings related to climate and energy, start the “Maine climate corps” for climate-related workforce development, and recognize climate leadership by Maine businesses and organizations.

Implementation and Funding

Moving with urgency to take bold, specific actions to achieve Maine’s climate goals will require resources, and no single funding stream will achieve our climate goals. This four-year Climate Action Plan is emerging amid unprecedented conditions caused by the global COVID-19 pandemic, which is stretching state revenues and many family budgets without relief in sight, and further exposing inherent inequities within our economy.

Climate action requires leveraging a variety of sources—existing and new, private and public, local, state, and federal—and fresh, innovative financing mechanisms to support sector-level transformations. For this plan to be successful, the support and engagement of Maine people is critical — to mobilize a broad coalition of state, local, regional, and tribal governments, nonprofits, academic institutions, and private interests taking collaborative, decisive action.

To that end, one of signature new initiatives of the Maine Climate Council is establishing a standing Equity Subcommittee that will review and evaluate climate policy through the lens of Maine populations most vulnerable to, and at-risk from climate change. This committee will follow on the groundbreaking work of the Equity Assessment of the climate strategies by the Mitchell Center at the University of Maine, and ensure a broad number of voices are heard and represented in Maine climate action. The subcommittee, which will be co-chaired by Ambassador Maulian Dana of the Penobscot Nation, is expected to be named early this year.

Informed by the findings of *Maine Won’t Wait*, Governor Mills has announced a series of actions to further her administration’s response to the climate crisis to protect Maine people and the environment, while also creating new pathways for economic growth. Key initiatives announced by Governor Mills include an ambitious goal to more than double Maine’s clean energy and energy efficiency jobs to 30,000 by 2030; to further expand existing incentives for purchasing electric vehicles and build more EV charging stations across Maine; to double the pace of home weatherization; to purchase more renewable energy through the state procurement process; and to create energy efficiency incentive programs for commercial businesses.

In the upcoming session, Governor Mills intends to submit actions to further advance cost-effective clean energy development and generation; to advance a process to incorporate sea level rise projections into current regulation; to phase down the use of ‘climate super pollutants’ known as HFCs; to put Maine’s target to achieve carbon neutrality by 2045 into law; to advance a process to propose incentives for small woodlot owners to support sustainable forestry management and sequester carbon emissions; to also advance a process to lay out a

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clean transportation roadmap; and to launch a pilot program for community-level climate resiliency planning to inform broader efforts in coming years.

We look forward to working with lawmakers on an investment bond package that puts Maine people back to work and supports energy and climate strategies, including support for municipal infrastructure projects that leverage federal FEMA funds and that support urgent state adaptation needs, funding to accelerate the pace of weatherization improvements to Maine homes, investments in the critical extension of broadband infrastructure across the state, and investments in working lands that are essential to our long-term economic and climate goals.

Thank you for your support of this critical work.



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



Melanie Loyzim
Acting Commissioner, Maine Department of Environmental Protection

Co-Chairs of the Maine Climate Council

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Attachment: Support for the Maine Climate Council

Climate change planning in Maine has a history of being public-private partnerships. As outlined in the legislation that created the Maine Climate Council, support for Council comes from a mix from public and private funds in order to support the Council's ability to address climate change in Maine and to ensure the sustainability and resiliency of its work.

The decision to accept private funding is based on the following principles:

- The Council believes that climate change is urgent and imperative to address now, and welcomes support from funders and donors who share this concern.
- While funders and donors are welcome to support projects that reflect their interest or concerns, the direction and outcomes of projects are the exclusive purview of the Council.
- The Council reserves the right to refuse financial support if the stated purpose of the funding, or the values of the funder, conflict with the purpose and values of the Council.
- To ensure maximum transparency and accountability to the citizens of Maine, the Council will disclose all funder and donor support once funds are received.

CURRENT FUNDING

The Council was appropriated \$250,000 annually, for a total of \$500,000, in the 2020-2021 biennial state budget enacted by the Maine Legislature. The Council has received \$758,500 to date from other sources. This funding has supported projects like cost-benefit modeling and data for the state Climate Action Plan, staffing support, and stakeholder and public engagement.

A full accounting of outside funds received is below:

- Elmina B. Sewall Foundation, \$170,000, Staffing capacity for climate resilience, Oct. 2019, \$20,000 Community resilience pilot project, December 2020
- Broad Reach Fund, \$15,000, Coastal and Marine working group support, Oct. 2019
- Anne and Alexander Buck Jr., \$100,000, Cost-benefit modeling and data, Dec. 2019
- Rhode Family Fund, \$5,000, General support, Dec. 2019
- Onion Foundation, \$100,000, Cost-benefit modeling and data analysis, Jan. 2020
- EarthSea Fund, \$60,000, General support, Jan. 2020
- Horizon Foundation, \$15,000, Communications and stakeholder and public engagement, May 2020; \$20,000, Community resilience pilot project, July 2020
- UN Foundation, \$133,000, Targeted staffing support, April 2020
- Maine Climate Leadership Fund at the Maine Community Foundation, \$15,000, communications and general support, July 2020; \$80,500, Community resilience pilot project, September and December 2020
- Betterment Fund, \$10,000, Community resilience pilot project, October 2020
- Daniel Hildreth, \$15,000, Communications, November 2020