

Maine Won't Wait 2.0 Update

DRAFT Framework

9/9/2024

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Equity Subcommittee Update

A. Embrace the Future of Transportation in Maine

Transportation is responsible for 49 percent of Maine's annual greenhouse gas emissions. To meet our climate goals, Maine must embrace the transition to cleaner vehicles that use zero-emissions fuels such as electricity. At the same time, investing in public, active, and shared transportation will provide clean and affordable options for Mainers to get where they need to go. *These recommendations provide targets and actions to help reduce emissions in this challenging sector while providing options for people of income levels and abilities to benefit from the transition to clean transportation.*

1. Accelerate Maine's Transition to Battery Electric and Plug-in Hybrid Electric Vehicles.

- i. Achieve emissions-reduction goals by putting ____ light-duty battery electric and plug-in hybrid vehicles on the road in Maine by

- 2030, including supporting the purchase of _____ vehicles by low- and moderate-income drivers.
- ii. Lower the cost of new and used EVs for low- and moderate-income drivers, ensuring that ____% of EV rebates and other innovative financing opportunities reach those drivers.
- iii. Expand EV charging stations statewide, including in more than 50 rural and disadvantaged communities.
- iv. Launch new EV education and awareness campaign(s) for Maine communities, car dealers, and employers to significantly accelerate the adoption of electric vehicles statewide.
- v. Advance common sense policy options that reduce emissions and increase consumer choice for EVs.

2. Accelerate Maine's Adoption of Zero-Emission Medium- and Heavy-Duty Vehicles (MHDVs).

- i. By 2028, support multiple pilot projects of zero-emission trucks, buses, ferries, and boats to demonstrate performance, reliability, and cost savings.
- ii. Launch near-term fleet advisory services to help medium- and heavy-duty vehicle fleets adopt clean vehicles.
- iii. Develop an incentive program for electric vans, trucks, and buses.
- iv. Advance common sense policy options, including utility and regulatory approaches, that accelerate the adoption of zero-emission medium- and heavy-duty vehicles.
- v. Implement the Clean Transportation Roadmap for MHDVs (2024).

3. Reduce Vehicle Miles Traveled by Investing in Public, Active, and Shared Transportation and Smart Land Use Policies.

- i. Increase transit ridership by ____% by improving transit frequency, expanding transit routes, investing in better infrastructure, and making communities more transit friendly.
- ii. Invest in clean transportation programs and projects which offer low-carbon alternatives to roadway expansion.
- iii. Expand education and awareness efforts about transit and active transportation, within and between communities.
- iv. Launch innovative transit pilot projects in urban and rural areas to improve and expand transit, including new intercity bus routes and improved coordination between state agency transportation services.
- v. By 2030, increase active transportation users by ____% by expanding safe active transportation infrastructure in at least 10 villages and downtowns, paving at least 75 miles of shoulder along highways, and building at least 10 miles of high priority off-road trails.
- vi. Launch a program to help low income and other Maine people try and buy e-bikes.

- vii. Increase shared commuting by ___% by expanding participation in GO MAINE and other programs.
- viii. Over the next four years, conduct research that addresses data gaps in understanding the VMT and GHG impacts of clean transportation strategies.

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

Heating, cooling and lighting of buildings are responsible for 31 percent of Maine's greenhouse gas emissions. Maine can reduce greenhouse gas emissions and save on energy costs by modernizing our buildings to use cleaner energy, increase energy efficiency, improve resilience, and use lower carbon building materials. *The actions in this section are aimed at continuing Maine's substantial progress in reducing emissions from buildings while pursuing new opportunities and ensuring equitable access to housing and energy efficiency programs.*

1. Continue the progress on making homes and businesses more energy efficient by investing in weatherization and heating systems.

- i. Install ___ highly efficient heat pumps in Maine homes and businesses by 2030, including ___ in low-income homes.
- ii. Weatherize ___ homes by 2030, including ___ low-income homes.
- iii. Extend funding and financing for weatherization and electric heating and water heating systems in homes and businesses beyond 2030.
- iv. Accelerate participation in energy efficiency programs for renters, low-income, and rural residents, including by supplementing existing home repair programs.
- v. Provide a wide array of education and outreach on the benefits of energy efficient appliances, clean energy, and weatherization, including through partnerships with community-based organizations.
- vi. Give residential buildings that use electricity for space and water heating the same sales tax exemption that exists for heating with oil, coal, and wood.
- vii. Continue to participate in regional initiatives around the use of state emissions standards for heating appliances.

2. Establish strong systems to support rapid adoption and compliance with climate-friendly building codes and standards.

- i. Commit to adopt new building codes to reach net-zero carbon emissions for new construction in Maine by 2035, with the interim goal of defining a net-zero emissions stretch code by 2028.
- ii. Move responsibility for building code adoption, compliance and training to the new Maine Office of Community Affairs (MOCA).

- iii. Support contractors and code enforcement officers through training, technical assistance, and contractor licensing, particularly in small and rural communities.
- iv. Develop a program to incentivize the purchase of manufactured homes that meet the new US Department of Energy (DOE) Zero-Energy Ready Home (ZERH) standards.

3. *Promote the manufacture and use of climate-friendly building products.*

- i. Building on Maine's designation as a federal Tech Hub for Forest Bioproducts, identify and address the barriers for attracting a cross-laminated timber (CLT) plant and other future bio-based materials manufacturing in Maine.
- ii. Increase awareness, educate, and provide technical assistance around embodied carbon, whole-life carbon accounting, and low carbon building materials to municipalities and larger institutions through programs such as the Community Resilience Partnership.
- iii. Use demonstration projects and incentive programs to address the current cost gap between high-embodied carbon (e.g., steel & cement) and low-embodied (e.g., wood and bio-based) building products.
- iv. Ensure municipalities require demolition permits and post a minimum two-week public notice so people can request salvage rights, with liability precautions (provide waiver language, require salvagers to sign a waiver).
- v. Require commercial and state-funded construction projects that meet certain thresholds (embodied carbon, structure size, etc.) to be designed for deconstruction and reuse by 2030 and sourced from reduced carbon materials.

4. *Support measures that both reduce carbon and improve resilience.*

- i. Leverage building codes, education and outreach, and state-run resilience programs to assist Mainers to prepare their homes and businesses to be resilient in the face of climate disasters, focusing on low-income households and Mainers with the fewest resources to prepare.
- ii. Increase funding and financing options for building-scale distributed energy resources, such as solar and storage (including electric vehicle batteries that are used as energy storage). Install __ MW of building-scale solar and storage consistent with modeling for the Maine Energy Plan: Pathway to 2040.
- iii. Expand education and outreach for programs that increase uptake of building-scale distributed energy resources, including through partnerships with community-based organizations.
- iv. Manage the impact of building loads on the grid.
- v. Enhance funding to mitigate risks of oil spills from residential oil tanks.

5. Accelerate decarbonization in industrial processes.

- i. Pilot and demonstrate emerging energy efficiency technologies in the industrial sector such as industrial heat pumps and scale up deployment of market-ready technologies such as membrane filtration in food production.
- ii. Continue traditional energy efficiency upgrades at small and mid-sized facilities.
- iii. Maximize federal grant-funding opportunities to help industrial facilities move towards clean and renewable technologies.
- iv. Maximize facilities' participation in cost-effective demand management, including use of behind-the-meter batteries or thermal energy storage.

6. Continue to lead by example in publicly-funded buildings.

- i. Fund and support the new Green Schools Program to reduce energy costs in Maine's 600 existing school buildings through the installation of zero-emissions heating and cooling technologies and renewable energy.
- ii. Enhance grant and loan programs to support efficiency and renewable energy programs in municipal and tribal government-owned buildings.
- iii. Ensure that all new state-owned buildings and major renovations use zero-emissions heating, cooling, and water heating sources, are compliant with the most recent or stretch energy codes and that major parking-related renovations and new builds at state owned buildings include "EV Ready" parking spaces.
- iv. By 2034, reduce greenhouse gas (GHG) emissions by at least 50% from existing state buildings.

7. Build more housing that is affordable, energy efficient, and close to vibrant community centers.

- i. Renovate or build ___ clean and energy efficient affordable housing units per year.
- ii. Promote compact development near community services and transit, consistent with Strategy F.

C. Transition to Clean Energy

As Maine continues to pursue the electrification of transportation and buildings, demand for electricity will grow. To meet the state's emission reduction goals, it will be critical that the electricity we consume is produced from clean energy resources. *These recommendations focus on managing the transition to clean energy while ensuring reliability and affordability.*

1. *Decrease energy burdens while transitioning to clean energy.*

- i. Understand and reduce energy burden among households. Set a target for lowering burden based on a comprehensive analysis of energy-related costs.
- ii. Reduce barriers to efficiency and clean energy investments through expanded financing and ownership models.
- iii. Launch an energy navigator program.
- iv. Ensure adequate funding for core energy assistance programs.

2. *Plan and build the infrastructure needed to achieve 100% clean electricity by 2040.*

- i. Establish a regular cadence of clean energy procurements to occur at least every two years.
- ii. Maximize the use of federal funds for priority infrastructure projects.
- iii. Help communities plan for clean energy through new stakeholder-informed resources such as model ordinances.
- iv. Improve the efficiency, predictability, and transparency of state siting and permitting processes while providing meaningful public engagement opportunities.
- v. Plan for future grid needs through proactive processes at both the transmission and distribution levels.
- vi. Improve and modernize the process for interconnecting clean energy projects.
- vii. Invest in a sustainable, Maine-based offshore wind industry.

3. *Manage the impact of buildings, vehicles, and industry on the grid with innovative demand management and load flexibility strategies.*

- i. Adopt software and technologies that enable signals based on actual grid conditions to manage demand and supply.
- ii. Facilitate customer participation in demand management programs through the adoption of supportive policies, programs, markets, and regulations.
- iii. Ensure equitable access to demand management programs and the distribution of their benefits. Track low- and moderate-income participation in these programs.
- iv. Develop an education and communications campaign around the opportunities and benefits of demand management initiatives.

4. *Grow Maine's clean energy economy with a goal to support 30,000 clean energy jobs by 2030.*

- i. Support state workforce initiatives with ongoing stakeholder coordination between industry, educational, and labor and training organizations.
- ii. Support partnerships that create an ecosystem for clean-tech innovation in Maine.

- iii. Expand access to apprenticeships and other earn-and-learn models.
- iv. Maintain an online clean energy jobs and training database.
- v. Create tailored tools, resources, and trainings to support disadvantaged students and job seekers.
- vi. Identify pathways into clean energy and climate friendly careers for workers and industries most impacted by climate change.

D. Create Jobs and Grow Maine's Economy through Climate Action

Maine's transition to a clean energy economy will reduce carbon emissions while creating new economic opportunities. Growth in the state's clean energy and energy efficiency sector will require a skilled workforce, creating new career opportunities. For Maine's natural resource industries, adapting to climate impacts—including new markets for Maine seafood, agricultural and forest products—can also offer new economic opportunities and retain and create jobs. Building on Maine's designation as a federal Tech Hub for Forest Bioproducts, Maine can continue to lead in innovation in climate and resilience, including developing new products and services to reduce emissions and make Maine more resilient to climate impacts. *This strategy focuses on education, training and investments to ensure access to these opportunities for all Maine people.*

- 1. Invest in climate innovation and new technologies.**
- 2. Support the growth of Maine businesses that help reduce emissions and become more resilient to climate impacts.**
- 3. Increase the workforce needed to achieve Maine's climate strategies, including through the Maine Climate Corps, and investing in apprenticeships and pre-apprenticeships, and in Maine's Career and Technical Education (CTE) Centers.**

E. Protect Maine's Environment and Working Lands and Waters and Increase Resilience of Coastal, Marine, and Inland Habitats

Maine's natural and working lands and waters absorb carbon from the atmosphere, provide clean drinking water, sustain wildlife habitat, and help mitigate flooding, among other benefits. Maine's natural and working lands support our farming, forestry, and outdoor recreation industries while Maine's coastal waters support fisheries and tourism industries that anchor the economic life of many Maine communities. *This strategy provides actions and targets that prioritize protection, restoration and enhancing resilience of Maine's ecosystems and the natural resource industries that depend on them.*

- 1. Increase the total acreage of conserved Natural and Working Lands in the state to 30% by 2030.**
 - i. Focus land protection efforts in areas with high biodiversity value, high carbon storage and sequestration, cultural and economic

importance, or offer opportunities to improve public access equitably.

- ii. Safeguard the state's agricultural resources by doubling the permanently protected farmland in Maine by 2030.
- iii. Significantly expand the funding and funding eligibility for land acquisition through existing and new land conservation programs, including the Land for Maine's Future Program.
- iv. Expand public and private capacity to support conservation acquisition and stewardship elements, including participatory planning efforts, acquisition and due diligence, ongoing land management and monitoring, and program evaluation and accountability.

2. Increase the amount of food consumed in Maine from state food producers to 30% by 2030.

- i. Create a Maine Food Plan by centering community involvement, collecting baseline information about Maine-grown food production and consumption, and recommending policies and expanded funding to bolster the local food system.
- ii. Strengthen the viability of Maine farms, fisheries, and other food producers through expanded, equitable, and ongoing access to funding, technical assistance, and processing and distribution infrastructure.
- iii. Create more Maine markets for Maine producers and increase access to Maine food.

3. Reduce food loss and waste 50% by 2030.

- i. Legislate food waste generator annual reporting for ≥ 1 ton/week generators, later expanding to $\geq \frac{1}{2}$ ton/week generators to support an annual 10% increase in diversion of food from landfills by 2030.
- ii. Maximize food rescue, recovery and donation of edible food through state tax credits, clearer liability protections, support for donation infrastructure, and preventing organizational policies that mandate disposal of edible food.

4. Develop new incentives to increase carbon storage.

- i. Provide incentives to forest landowners, foresters, and loggers to increase the implementation of climate-friendly practices.
- ii. Increase the availability of technical assistance, training, and education for forest landowners, foresters, and loggers to increase the application of climate-friendly forest practices.
- iii. Improve forest carbon data, monitoring, and verification to support forest policymaking and outreach program development.
- iv. Continue to engage in a multistate collaboration with state agencies and universities in consultation with landowners regarding the role of forest carbon sequestration in reducing net greenhouse gas

emissions, which, among other benefits, will help inform the State of Maine as it defines how it will account for voluntary/regulatory carbon sequestration markets in its emissions accounting approach.

5. *Support climate adaptation of Maine’s fisheries, aquaculture and seafood industries.*

- i. Promote stewardship of resilient ecosystems to take advantage of diverse markets by supporting innovative economies resilient to climate change, and grow existing opportunities in sustainable, emerging, and underutilized fisheries and aquaculture economies.
- ii. Expand equitable access to cultural, traditional, emerging and heritage industries.
- iii. Focus resilience actions on fisheries and aquaculture in communities with little economic diversity, and create pathways to advancement in natural resource employment, particularly for priority populations.

6. *Monitor, conserve and increase resilience of coastal and marine ecosystems.*

- i. Enhance ongoing monitoring to guide informed decision statewide and regionally; create new monitoring programs to fill data gaps, including characterizing changes to coastal and marine ecosystems and effects of extreme weather events on people and natural resources.
- ii. Restore and increase resilience of coastal, marine, and inland habitats, prioritizing areas that support land and water connectivity, ecosystem health, and resilience to climate impacts.
- iii. Increase technical assistance and service provider capacity to provide guidance for climate solutions to communities and natural resources industries, particularly on nature-based solutions for coastal management challenges.

7. *Reduce and capture methane emissions from Maine’s waste sector.*

- i. By 2030, develop and implement a strategic plan to reduce and capture methane by keeping food out of landfills and other actions identified by the US Climate Alliance methane study.
- ii. Provide subsidies to make methane capture systems feasible for small landfills, incentivize anaerobic digestion and support diversion of food waste, manure, and other high methane producing materials from waste streams.

F. *Build Healthy and Resilient Communities*

Communities in Maine have made strides in understanding their exposure to climate threats and taking proactive steps to become more resilient. There is much more work to do as the storms, floods, winds, and dry spells of the past two years have shown. More than ever, communities continue to need funding, tools, and support to address

climate impacts and overlapping challenges of aging infrastructure, affordable housing, public health, and more. *This strategy provides actionable steps for how state and local governments can build resilience and prepare for the impacts of climate change, with a particular focus on individuals and communities that are most vulnerable. This strategy also contains recommendations related to land use planning, showing how Maine can encourage compact development to reduce existing and avoid future transportation emissions, to ensure adequate clean energy resources to meet the state's energy needs, while protecting natural and working lands and reducing climate risks, in the context of Maine's housing crisis and growth opportunities.*

1. Increase Local Capacity for Climate Resilience.

- i. Help communities strengthen communication networks before, during and after disasters, especially with people who may not be reached through traditional channels.
- ii. Develop tools to help communities and people “get out of harm’s way.”
- iii. Expand investment in grants and assistance to communities.
- iv. Increase capacity for collaborative storm debris management infrastructure (local to federal level); decrease environmental contamination risk from storm/flooding events by ensuring hazardous and household hazardous waste streams are properly managed.

2. Enhance the State’s ability to prepare for and recover from natural disasters.

- i. Increase capacity for disaster planning and management at state, county, and local levels.
- ii. Support planning and decision making that reduces exposure to natural hazards and climate vulnerabilities.
- iii. Establish a framework for measuring the effectiveness and equity of adaptation and resilience actions.

3. Expand access to funding and financing for climate adaptation and emissions reduction.

- i. Establish a “resilience bank” to ensure sustainable funding and financing for climate-ready infrastructure and adaptation projects.
- ii. Simplify state grant application processes.
- iii. Develop a long-term funding plan and investment strategy to support implementation of *Maine Won’t Wait* goals.

4. Strengthen Public Health Monitoring, Education, and Prevention.

- i. Limit the impacts of poor indoor air quality on human health from wildfire smoke and from mold following water damage, especially in low-income and rural communities.

- ii. Utilize heating assistance programs to improve both energy efficiency and indoor air quality.
- iii. Enable disadvantaged communities to address extreme temperature vulnerabilities with assistance for tree planting and emergency warming and cooling centers.
- iv. Assess the potential spread of vector-borne illnesses and invasive species that cause illnesses in marine, freshwater, and public drinking water systems, especially following severe weather events.

5. *Increase awareness and action on the mental health impacts of climate change.*

- i. Strengthen connections between disaster planning and mental health services with a focus on young people, first responders, and vulnerable groups.
- ii. Provide training, assessments, educational materials, and funding across healthcare services to address mental health impacts related to climate change.
- iii. Establish programming and education for schools to build student resiliency, agency, and hope regarding climate change.

6. *Promote smart growth to reduce emissions, prevent natural and working land conversion, and create affordable housing.*

- i. To meet state growth needs, promote compact development near community services, through neighborhood level land use planning, building in already developed areas with vacant space, and redevelopment of existing buildings.
- ii. Support streamlined municipal application of land use policies that reduce emissions and addresses clean energy siting, electrification, and housing needs while planning for other local priorities including climate resiliency, wildlife and habitat, outdoor recreation, and protections for agricultural soils and forestland.
- iii. Promote clean energy and electric grid investments that utilize existing infrastructure and minimize land impacts.
- iv. Avoid growth in vulnerable areas at risk of flooding, wildfire, or other climate-affected hazards. Avoid growth in sensitive natural resources and important habitats, to ensure Maine's natural systems remain healthy and resilient.

7. *Build healthy and resilient coastal communities and protect critical place-based infrastructure.*

- i. Empower communities to protect working waterfronts by using planning and zoning strategies, implementing funding set-asides for place-based infrastructure for working waterfront, aquaculture, and fisheries, and increasing public literacy.
- ii. Increase resilience of public and private working waterfront infrastructure by funding resilience upgrades and protection of

working waterfront access, filling workforce and contractor capacity gaps, and prioritizing clean energy projects on critical place-based infrastructure.

- iii. Preserve and expand waterfront access, including intertidal access, through a statewide working waterfront strategy that increases data gathering, increases public infrastructure capacity, and removes barriers to equitable and diverse access to Maine's nearshore environment.

8. *Provide technical assistance to communities and use proactive communication and engagement to support effective land use planning.*

- i. Help communities use proactive communication and encourage community engagement to support effective land use planning that is inclusive of their community needs, local context, and distributes benefits equitably.
- ii. Use the Maine Office of Community Affairs to help communities align local land use policies with local priorities and state priorities, including housing and climate goals.
- iii. Share proactive messaging about the multiple benefits of meeting housing needs and growth needs, clean energy development to meet renewable energy requirements, and land use planning for climate resilience.
- iv. Develop communication strategies that stress local engagement to build shared understanding and consensus.
- v. Expand capacity at the state, regional, and local level to provide the technical expertise needed to support communities in effective land use planning that achieves smart growth goals, climate goals, clean energy siting goals, and protects natural and working lands.

9. *Use incentives and regulations for land use policies that reduce emissions, foster vibrant community centers, reduce sprawl, and provide measurable benefits.*

- i. Use incentives, regulations, and state funding to encourage local land use policies that align with smart growth principles, compact development, and provide measurable benefits to Maine's communities while meeting climate goals.
- ii. Develop incentives that will help communities overcome barriers to prioritizing development needs and support transit-oriented development that decreases vehicle miles traveled, while avoiding incompatible development.
- iii. Use accurate and detailed data to support planning and inform decision-making that minimizes adverse impacts, achieves compact development, protects natural and working lands, and meets clean energy development needs.
- iv. Right-size incentives at different scales: regional and municipal levels; smaller or larger communities, public land versus private land, individuals versus developers.

10. Advance Policies and Deploy Funding to Reduce Emissions Across Product Lifecycles by Growing Maine's Circular Economy.

- i. Establish dedicated sources of funding to support development of reuse/refill/repair infrastructure, prioritizing systems for non-packaging materials and products that will not receive funding support from Maine's product stewardship programs.
- ii. By 2030, set "Lead by Example" standards for state government, prioritizing waste prevention, extending product lifetimes through repair and refurbishment, replacing single-use disposables with reusable options, and implementing food scrap diversion.

11. Regionalize and scale-up access to waste prevention and diversion services.

- i. Create funding for additional staff capacity for technical assistance and materials management planning support within regional planning commissions, councils of government, and similar entities providing regional support.
- ii. Provide state level coordination, technical assistance, and planning support to regional and local entities for regionalization and hub-and-spoke infrastructure for materials management collection programs across municipalities.
- iii. Develop model municipal ordinances and best practice guides to ensure equitable access and inclusive education for waste reduction and diversion programs for low-income households, renters, new Mainers, and rural communities.

G. 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. *The recommendations in this section show how the Maine Climate Council and other state agencies can engage with diverse communities to communicate the importance of climate action and understand how policies and programs can better serve the needs of Maine people.*

1. Raise Awareness About Climate Change Impacts and Opportunities.

2. Increase Public Education Offerings Related to Climate and Energy.

8. Implementing Maine's Climate Action Plan

A. Funding & Financing Options

B. Communications and Engagement

- 1. How the plan was developed
- 2. GOPIF communication and outreach
- 3. How partner organizations can engage with the plan

C. Ensuring Equity

D. Measuring Progress

Clear metrics for Maine’s climate goals are critical for informing the public about whether policies are having the intended outcomes and for making evidence-based adjustments, enhancements, or replacements to policies in pursuit of our 2030, 2045, and 2050 targets. Moving forward, the Maine Climate Council will track and measure consumption-based emissions in addition to territorial emissions to more fully understand the greenhouse gas emissions impact of the products we buy and consume in Maine.

9. Connect With the Council

10. Definitions and Acronyms

11. Scientific and Technical Reports

12. Acknowledgements

13. Photo Acknowledgements

14. Endnotes