

# MAINE CLIMATE COUNCIL ANNUAL REPORT

JANUARY 15, 2023

## FROM THE CO-CHAIRS

This year, the American Planning Association lauded *Maine Won't Wait*, our state's four-year climate action plan, as the best sustainability plan in the country, saying, "*Maine Won't Wait* demonstrates the importance of planning in ensuring programming and policy decisions move the needle toward a more resilient future."

Since its introduction in December 2020, *Maine Won't Wait* has pushed the needle forward on climate action in Maine, creating historic momentum for reducing emissions, advancing clean energy, and protecting Maine's infrastructure and environment from the harms of climate change.

This year marks the midway point of *Maine Won't Wait*. As co-chairs of the Maine Climate Council, which was created in statute by Governor Janet Mills to develop the state's climate plan, we look back on the past two years and are amazed by the achievements in support of the plan by so many people, communities, and organizations.

To date, more than 82,000 new heat pumps have been installed in Maine since 2019. This pace, if it continues, would exceed *Maine Won't Wait's* goal of 100,000 heat pumps before 2025. In this same period, more than 9,100 homes have been weatherized, which is more than halfway toward the plan's goal of weatherizing 17,500 homes by 2025.

Some 127 communities are now participating in the Community Resilience Partnership, a new program to encourage cities, towns, and Tribal governments to identify climate and resilience priorities and start or expand their local climate planning and actions.

On the national level, historic federal legislation – the American Rescue Plan Act (ARPA) and the Bipartisan Infrastructure Law (BIL) – are now delivering unprecedented support for climate and resilience priorities to upgrade our community infrastructure, weatherize low-income homes, expand electric vehicle charging, and more.

Just recently, with BIL funds, the US Environmental Protection Agency awarded 13 school districts in Maine a total of \$13 million to purchase 34 electric school buses – among the largest per-capita awards in the country! This investment is a significant expansion of clean transportation technology that will save taxpayers from fuel and maintenance expenses while improving the health of students.

And \$20 million in ARPA funds, allocated this year through the Governor's Maine's Jobs & Recovery Plan, is supporting critical projects in 13 communities to protect valuable community infrastructure from effects of climate change, including extreme storms, flooding, and rising sea levels.



Over the coming years, additional funding from BIL and incentives from the Federal Inflation Reduction Act – the most significant climate bill ever passed in the United States – will deliver critical investments to hasten our resilience to climate change and advance our country's transition to renewable energy.

These investments are critical, especially now. Roiling global energy markets since the Russian invasion of Ukraine have stoked unprecedented prices for heating fuel and electricity in Maine, due to our over-reliance on oil and natural gas to heat our homes and generate our power.

Reducing our dependence on fossil fuels, long a climate imperative for curbing harmful emissions, is essential for ensuring the safety and security of Maine people, businesses, and communities from hardships caused by unpredictable, unaffordable energy costs. This effort stands to create significant new economic opportunities for Maine in climate-friendly buildings, energy efficiency, advancing renewable energy, and innovative technology and products in the years to come.

So, as we celebrate progress under *Maine Won't Wait*, we also recognize the significant challenges that lie ahead. We commit to continue the momentum of the past two years, help Maine maximize every opportunity ahead, and ensure our state's most vulnerable communities and populations share in the benefits from these opportunities.

We thank everyone for the remarkable support and embrace of *Maine Won't Wait* and look forward to advancing urgent climate action for Maine this year, next year, and in years to come.

Handwritten signature of Hannah Pingree in black ink.



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

Handwritten signature of Melanie Loyzim in black ink.



Melanie Loyzim, Commissioner  
Department of Environmental Protection

## GREENHOUSE GAS EMISSIONS UPDATE

The Maine Department of Environmental Protection (DEP) released its Ninth Biennial Report on Progress Toward Greenhouse Gas Reduction Goals in July 2022, providing a comprehensive analysis of Maine’s greenhouse gas emissions (GHG) by fuel source and economic sector. The report found that as of 2019, gross GHG emissions in Maine were 25 percent lower than 1990 levels, surpassing the state’s medium-term goal of reducing gross GHG emissions to 10 percent less than 1990 levels by January 1, 2020.

With continued progress in reducing gross GHG emissions, the report indicates Maine is well-positioned to meet its goal of carbon neutrality by 2045, which was recently added to state law. Maine also has statutory goals to reduce gross GHG emissions by 45 percent from 1990 levels by 2030 and 80 percent by 2050, which were signed into law by Governor Janet Mills in 2019 with bipartisan support of the Legislature.

“Maine is making welcome progress in reducing harmful carbon emissions and in curbing our reliance on expensive fossil fuels,” said Governor Mills.

This Ninth Biennial Report is the first to quantify the carbon sequestration benefits of Maine’s forests, fields and wetlands. It is essential for the creation and evaluation of emission reduction programs to take into account this more comprehensive view of carbon released and captured within Maine’s borders.

The report also found that:

- 91 percent of gross GHG emissions in Maine result from energy consumption, and carbon dioxide (CO<sub>2</sub>) emissions from combustion of fossil fuels account for 60 percent of Maine’s 2019 gross GHG emissions. Annual emissions in the energy source category have been reduced by 38 percent since the high in 2002 and 26 percent since 1990.
- Maine is approximately 75 percent of the way toward carbon neutrality, which means 75 percent

of gross GHG emissions are offset by sequestration in the environment.

- Annual CO<sub>2</sub> emissions from fossil fuel combustion in the electric power sector have decreased by 91 percent since they peaked in 2002, largely by replacing high carbon fuels with lower carbon energy sources such as natural gas and renewable sources.
- Total emissions from the transportation sector were 8 percent lower in 2019 than 1990; however, proportionally, the transportation sector was responsible for 49 percent of Maine’s CO<sub>2</sub> emissions from the combustion of fossil fuels in 2019.
- Maine reduced its GHG intensity and emissions per dollar, creating 29 percent less GHG emissions per billion btu (BBtu) of energy in 2019 than the high in 2002.
- Maine’s economy has grown while GHG emissions have declined, with 53 percent less GHG emissions per million dollars of state gross domestic product (GDP) in 2019 compared to 1990.



**25%**  
Below 1990  
Greenhouse Gas  
Emissions

Updated Figure  
for 2019

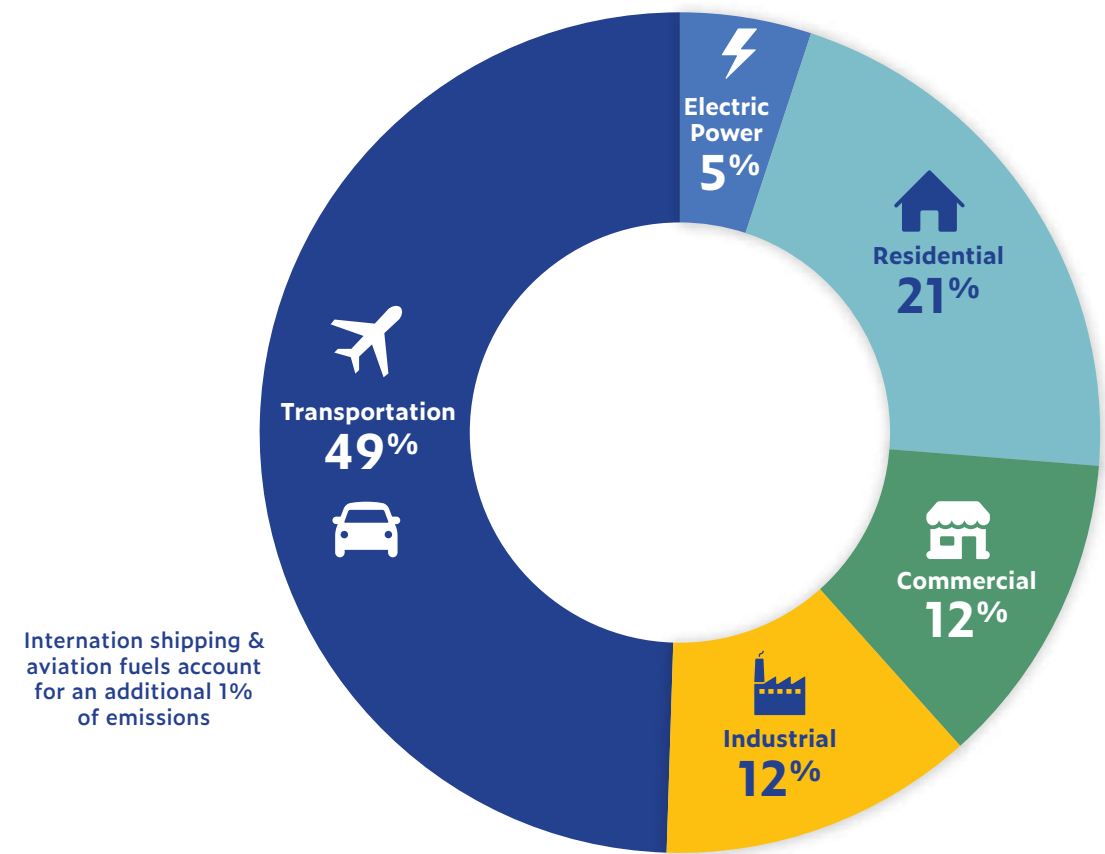
**75%**  
of the way to  
Carbon Neutral

Goal: 100%  
Carbon Neutral  
by 2045

(75% of Maine GHG emissions absorbed by Maine ecosystems)



## Maine Carbon Dioxide Emissions from Fossil Fuel Combustion by Sector (2019)



Data source:  
Maine Department of Environmental Protection

## Equity Updates: Advance Equity Through Maine’s Climate Response

The Equity Subcommittee of the Maine Climate Council was created in Maine’s four-year climate action plan, *Maine Won’t Wait*. It is tasked with setting equity outcomes for climate actions, monitoring progress and making recommendations to the Council to ensure programs and benefits reach diverse populations and communities.

Maine’s work is proceeding in parallel to equity actions nationwide. The national equity framework called Justice 40 seeks to invest 40% of benefits from Federal climate and clean energy programs in disadvantaged communities. Maine is currently working to understand the impact of this framework on the hundreds of millions of dollars flowing into Maine through the Bipartisan Infrastructure Law and other Federal grant programs and formula funding over the coming years.

In early 2022, the Equity Subcommittee delivered initial draft recommendations to the Maine Climate Council to ensure that all people in Maine benefit from the state’s actions to reduce the harms of climate change. Over the past year, the Equity Subcommittee has continued to work with state agencies and the Climate Council Working Groups to refine the initial draft recommendations, understand equity actions already underway, and develop proposed metrics for measuring progress.

A final report will be delivered to the Maine Climate Council in early 2023.

# Tracking the Progress of *Maine Won't Wait*

This dashboard tracks numerical targets included in *Maine Won't Wait* to inform the public and help evaluate whether evidence-based adjustments, enhancements or replacements to policies are needed in pursuit of the plan's climate objectives. Over time, the dashboard will expand to include other key *Maine Won't Wait* metrics as updated data becomes available, new programs are established, and state and federal climate investments are realized.



**8,594**  
Electric & Plug-in Hybrid Vehicles

Goal: 219,000 by 2030



**389**  
Public EV Charging Stations

Up from 184 in 2019



**82,326**  
New Heat Pumps since 2019

Goal: 100,000 new by 2025



**9,112**  
Homes Weatherized since 2019

Goal: 17,500 by 2025



**48%**  
Clean Energy Use

Goal: 80% by 2030



**14,477**  
Clean Energy Jobs

Goal: 30,000 by 2030



**22%**  
of Maine Land Conserved

Goal: 30% by 2030



**127**  
Communities in Resilience Partnership



Goal: 100 Communities by 2023

Visit our online dashboard to learn more: [maine.gov/climateplan/dashboard](https://maine.gov/climateplan/dashboard)



## STRATEGY A Embrace the Future of Transportation in Maine

The transportation sector is the largest source of CO<sub>2</sub> emissions from fossil fuel combustion in Maine (49%), according to the most recent emissions report from the Maine Department of Environmental Protection (DEP). *Maine Won't Wait* includes ambitious strategies to reduce transportation emissions by transitioning to electric vehicles (EV), making transportation more efficient including medium and heavy-duty trucks, and reducing vehicle miles traveled through increased access to broadband, public transit, and opportunities to bike and walk.

### Significant Federal Funding for Electric Vehicle Infrastructure

Maine is expected to receive \$19 million from the federal Bipartisan Infrastructure Law over the next five years to expand electric vehicle (EV) charging infrastructure.

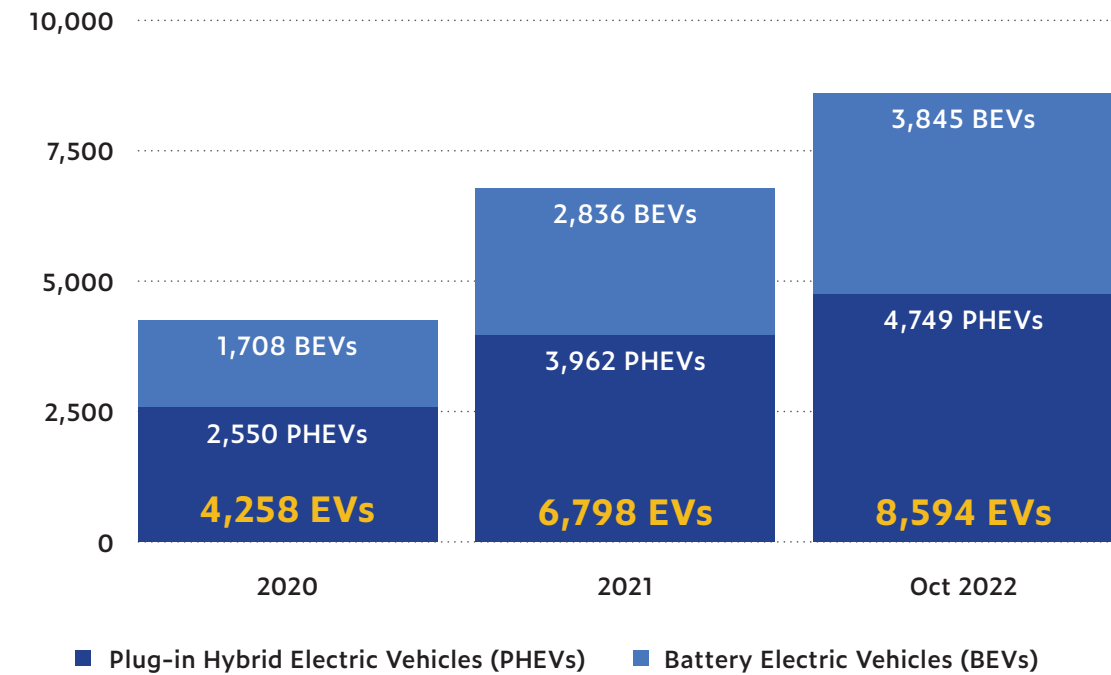
This is critical to *Maine Won't Wait's* goal of increasing electric vehicle use to reduce emissions. Recent progress to expand public charging infrastructure supports the adoption and use of electric vehicles. Total registrations of battery electric and plug-in hybrid electric vehicles have more than doubled between 2020 and October 2022.

A separate initiative from the Maine Department of Transportation (MaineDOT) and Efficiency Maine is supporting installation of public EV chargers in rural communities. This is the first of a series of planned EV charging infrastructure investments, using \$8 million allocated by Governor Janet Mills' Maine Jobs & Recovery Plan (MJRP). Under this initiative, eligible projects can receive 80 percent of installation costs. Thanks to the generosity of The Nature Conservancy, projects at local government-owned properties and public libraries in rural areas will be eligible for a bonus incentive covering up to 90 percent of the total project cost.

MaineDOT and Efficiency Maine, with support from the Governor's Energy Office, Maine DEP, and the Governor's Office of Policy Innovation and the Future, have received federal approval of a plan to invest in Maine's electric vehicle charging infrastructure through National Electric Vehicle Infrastructure Deployment (NEVI) funds. In addition to the \$8 million for public EV charging through MJRP and the \$19 million in NEVI funding from the BIL, the state will also compete for additional funding through the BIL's NEVI Discretionary Grant Program.

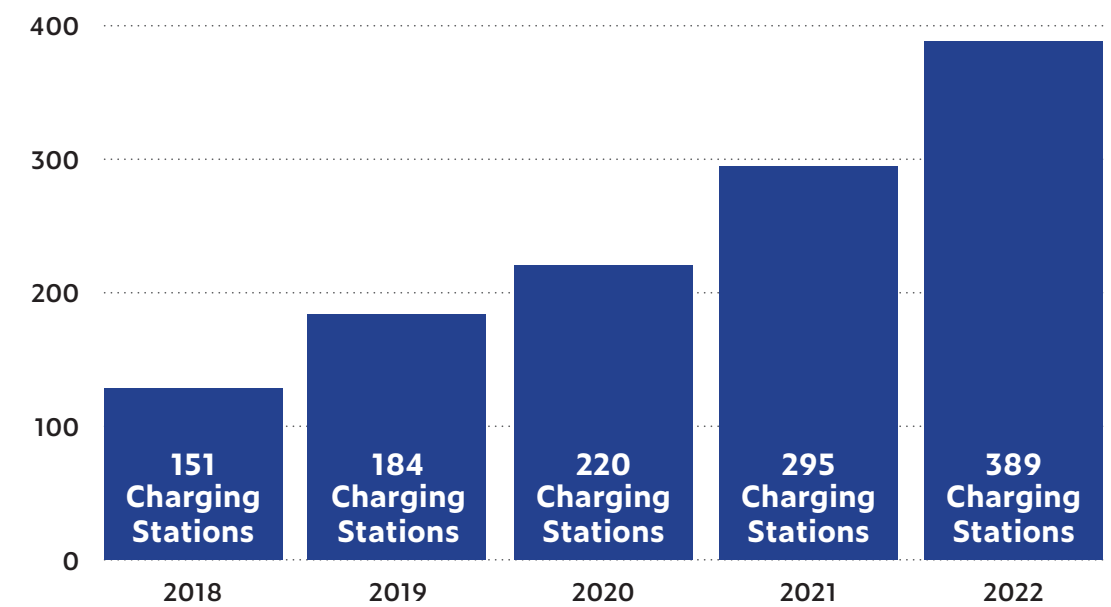


## Electric Vehicles on the Road in Maine



Data source: Maine Department of Environmental Protection

## Maine Public EV Charging Stations



Data source: NREL Alternative Fuels Data Center, Alternative Fueling Station Counts by State



## PROGRESS UPDATE

### Accelerate Maine's Transition to Electric Vehicles

Expand electric vehicle use in Maine toward a target of having 219,000 on the road by 2030.

- Efficiency Maine offers instant rebates for eligible battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs), including enhanced rebates and rebates for used EVs for low and moderate income drivers. The number of rebates in 2021 was more than double the number in 2020, and more than 700 rebates have been awarded in total as of the end of August 2022.
- The state biennial budget includes \$3.5 million for continuing state EV rebates, administered by Efficiency Maine.
- For business, local and Tribal governments, and non-profit organizations, Efficiency Maine has increased the price cap for electric trucks and vans and launched a promotion to increase electric fleet vehicles.

- For low-income households, Efficiency Maine has incorporated more pathways to eligibility for enhanced low-income EV rebates, including participation in means tested programs such as the Low-Income Home Energy Assistance Program (LIHEAP), Supplemental Nutrition Assistance Program (SNAP) for food assistance, Temporary Assistance for Needy Families (TANF) for cash assistance, and MaineCare for medical insurance coverage.
- The passage of LD 1579 codified the state's "Lead by Example" electric vehicle goals for state fleets, school buses, and municipal fleets into law.

### Develop a Clean Transportation Roadmap by 2022.

- The Clean Transportation Roadmap, prepared by outside consultant The Cadmus Group, was published in December 2021. It offered recommendations to enhance the EV market in Maine, expand charging infrastructure, evaluate effects on electric utilities and the grid, and ensure an equitable and affordable transition to clean transportation for all people in Maine.

### Encourage Electric, Hybrid, and Alternative Fuel Medium and Heavy-Duty Vehicles by 2022.

- The Maine Department of Transportation (MaineDOT) is developing a best practices summary for transit vehicle electrification, as well as working with transit providers to develop plans for transitioning select transit bus fleets to electric or hybrid vehicles, and has completed individual fleet transition analyses for eight transit agencies based on their current circumstances and preferences. Details such as bus replacement schedules and recommended facility upgrades will help inform discretionary grant funding requests. The plans are currently being finalized and will be available in early 2023. MaineDOT plans to expand these efforts to include rural transit agencies.

### Increase Fuel Efficiency and Alternative Fuels

#### Support Increased Federal Fuel Efficiency Standards.

- In cooperation with other states and organizations, Maine continues to support increased federal fuel efficiency standards for all vehicle classes. This includes engagement with the US Environmental Protection Agency (EPA) on development of programs and federal rulemaking to reduce greenhouse gases and pollutants from transportation sources, such as strengthened EPA standards for passenger cars and light duty trucks finalized in December 2021.

## Lead By Example: Fleet Electrification

The Maine Department of Inland Fisheries and Wildlife (DIFW) is Leading by Example with the electrification of its vehicle fleet. The Department recently launched a pilot project with the purchase of two Ford F-150 Lightnings, which will replace gas-powered pickups.

DIFW's F-150 Lightnings will be used in their Augusta and field offices to assess their suitability for travel to regional offices and local field work, particularly winter performance and range impacts from towing. The Department estimates that the switch will result in more than \$1,500 annually in fuel savings.



### Increase freight industry participation in EPA's SmartWay program by 2024.

- The Maine Motor Transport Association (MMTA), with support from MaineDOT, promotes enrollment in the US EPA's SmartWay program. SmartWay is a voluntary program that helps companies advance supply chain sustainability by measuring, benchmarking, and improving freight transportation efficiency. There are currently more than 30 SmartWay members who are either headquartered or operate in Maine. MMTA provides information about the program, its benefits for owners and operators of large trucks, and how to get started.

### Increase local biofuel and biodiesel production and use by 2024.

- MaineDOT continues to use locally produced biofuel to heat 11 facilities, and biodiesel in vehicles, which reduces carbon emissions compared to petroleum-based alternatives.

### Higher-efficiency vehicle incentive program.

- The Clean Transportation Roadmap evaluated current research on "Cash for Clunkers" programs and reported that this kind of program has potential to rapidly accelerate combustion vehicle stock

turnover, benefiting low-income individuals who are most burdened by transportation pollution. Equitable design can ensure that the majority of benefits flow to the lowest income individuals.

### Reduce Vehicle Miles Traveled

**Encourage development that supports the reduction of VMT (by 2024); Reduce light-duty VMT over time, achieving 10% reductions by 2025 and 20% by 2030. Reduce heavy-duty VMT by 4% by 2030.**

- MaineDOT is currently updating its Long-Range Transportation Plan 2050. The plan will integrate the state's Strategic Transit plan, which looks at current statewide travel patterns as well as how likely people are to use transit, and the Active Transportation plan, which includes a recommendation to collect data on the number of pedestrian, bicycle, and other active transportation users in targeted areas of the state. A draft of the Long-Range Transportation Plan will be available in mid-December 2022.
- MaineDOT is currently reviewing the State's Complete Streets Policy to provide safe and accessible streets and highways, with plans to update the policy by early 2023. As part of this process, MaineDOT has hosted community meetings in

23 communities with a history of pedestrian fatalities, three public events, and numerous stakeholder meetings. Revisions to the Complete Streets Policy focus on safety for all users, especially cyclists and pedestrians.

- Governor Mills signed into law LD 2003, An Act To Implement the Recommendations of the Commission To Increase Housing Opportunities in Maine by Studying Zoning and Land Use Restrictions, which aims to facilitate the creation of additional housing units throughout the state and encourage density and mixed-use development. With \$3 million in funding from the state biennial budget, a new program has been established at the Department of Community and Economic Development to provide technical and assistance and grants to communities to support improved land use planning that promotes housing development.
- Maine Department of Labor (DOL) and Maine DOT are partnering to launch an electric bicycle (e-bike) pilot to support individuals participating in select DOL programs with access to employment, appointments, and other daily needs. This program will launch in Bangor in spring of 2023, and support approximately 10 participants. Participants in the program will be provided with a bike at no cost, as well as provided training on its use and maintenance. The program is expected to result in improved attendance by program participants at their place of employment and other appointments. The program will be evaluated for expansion once results are realized. Additionally, Maine DOT has supported an e-bike bikeshare program in Portland since late summer 2022, and, in partnership with Bicycle Coalition of Maine, is developing a statewide library bike and e-bike bikeshare pilot program.

### Deploy high-speed broadband to 95% of Maine homes by 2025 and 99% by 2030.

- Governor Mills established the Maine Connectivity Authority (MCA) in 2021 to achieve universal access of affordable high-speed broadband in Maine. With \$150 million from the American Rescue Plan and the Maine Jobs and Recovery Program, the MCA will administer a tenfold

increase over any past investment in Maine's broadband infrastructure.

- The Bipartisan Infrastructure Law (BIL) includes significant funding for broadband. Maine is expected to receive \$100 million from BIL to expand high-speed broadband across Maine (building on the American Rescue Plan/Maine Jobs & Recovery Plan \$150 million dollar investments in connectivity goals) and \$13 million over four years for state and local cybersecurity.

### Increase public transportation funding by 2024.

- The state biennial budget includes \$15 million to support multimodal programs including Complete Streets, electrifying public bus fleets and the state ferry system, intermodal freight, and active transportation projects throughout the state.
- The Federal Bipartisan Infrastructure Law (BIL) allocates at least \$234 million to Maine over five years to improve public transportation options across the state. Additional competitive funds for transit and ferry programs may be available to enhance public transportation in Maine.
- \$30 million for transportation emissions reductions and planning through the BIL Carbon Reduction Program can support public transit, active transportation, Complete Streets, and Connected Traffic Signal Systems (over five years).
- The Workforce Transportation Pilot program is an initiative of Governor Mills' Maine Jobs & Recovery Plan to pursue and develop transportation solutions that connect workers with employers across Maine. This \$5 million program will provide competitive grants of up to \$750,000 to local and regional partnerships to pilot innovative ways to connect workers and employers through ridesharing, vanpools, and other subsidized transit options. The first award, a \$387,200 grant to Sunday River of Newry, will support the purchase of four all-wheel-drive vans to offer free transportation for workers from nearby towns to the ski resort, to support existing employees and to reduce barriers to work for new employees.

## Maine's First EV Repair Training Course

The first electric vehicle repair course in Maine launched at Southern Maine Community College as EV and hybrid adoption accelerates across the state. In the course, auto technicians from dealerships, repair shops and other automotive businesses are trained to diagnose and service electric and hybrid vehicles.

As SMCC Automotive Technology Chair Ruth Morrison explained about why she started the EV repair curriculum, "There are already so many more electric and hybrid vehicles on the road now - and there are going to be more and more. We need more technicians to be able to service them. Also, as vehicles are sold to second and third owners, it is helpful to perform used vehicle condition and value checks."

The short-term course is currently offered for free for trainees who meet prerequisites. Read all about it at [MaineWontWait.org](http://MaineWontWait.org).



- The targets for per-capita spending on public transit included in *Maine Won't Wait* did not include all public transportation services. The updated spending figure of \$11.55 for 2021 is a more accurate calculation of the state's per-capita spending on public transit.

### Relaunch GO MAINE by 2022.

- GO MAINE, the state's ride-sharing program, was relaunched in early 2022. GO MAINE provides ride matching for carpoolers, rewards people for taking green commutes and offers the Emergency Ride Home Benefit for members. GO MAINE serves the entire state of Maine, and services are free.

## Maine Clean School Bus Program

The State of Maine has created a new statewide Maine Clean School Bus Program to help Maine school districts purchase electric school buses.

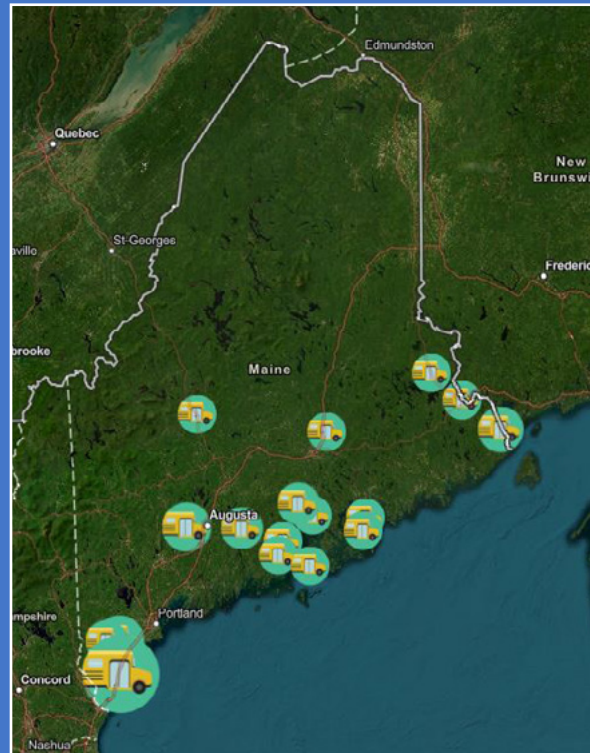
With up to \$5 billion available over the next 5 years through the Environmental Protection Agency's (EPA) new Clean School Bus Program, there is an unprecedented opportunity to accelerate electric school bus adoption in Maine and deliver cleaner school transportation to every region of the state. The Maine Clean School Bus Program is a joint project of the Maine Department of Education, the Maine Department of Environmental Protection, and the Governor's Office of Policy Innovation and the Future, to support school districts in competing for federal EPA clean school bus funds.

The Maine Clean School Bus Program works with school districts and school bus contractors to:

- Provide free technical assistance to plan for, procure, and deploy electric school buses.
- Provide information on the EPA Clean School Bus Grant Program and assist schools in preparing funding applications.
- Provide information and resources to increase awareness of electric school bus technology and performance.

On October 26, the EPA announced that Maine led the country with the 4th most EV bus awards, per-capita, of all 50 states; and the most per capita in New England.

Buses are going to school districts in Castine, Dayton, East Range, Mount Desert, Pleasant Point, RS 12 (Windsor), RS 20 (Searsport), RS 57 (Massibestic), RS 83 (Bingham), Waite, Wells-Ogunquit, and Winthrop – with over \$13 million in awards for 34 EV buses.



School districts designated "priority" by the EPA were awarded the full cost of buses and associated charging (\$395k/bus) and awards granted districts the full number of their requested buses. As a next step, the Maine Clean School Bus Program will support awarded districts as they order, install infrastructure for, and begin to operate their buses.

Several more rounds of EPA awards are expected in the coming years. EV buses, fully paid for by the US EPA, will save money for local school districts on maintenance and gas, and will reduce harmful transportation emissions.





## STRATEGY B

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

Maine and New England are currently experiencing volatile and historically high energy prices which will persist throughout the 2022-2023 winter season since Russia – a major global supplier of fossil fuels – invaded Ukraine in early 2022. Maine is the most heating-oil dependent state in the country, with 60 percent of homes heated by fuel oil, compared to the national average of 4 percent. This means that Maine is distinctly vulnerable to the increased fossil fuel prices and volatility.

*Maine Won't Wait* includes strategies to increase energy efficiency and transition to highly efficient electric heat pumps and heat pump water heaters to make Maine homes safer, healthier, more comfortable, and more affordable while reducing greenhouse gas emissions. The Federal Bipartisan Infrastructure Law (BIL) and consumer rebates in the Inflation Reduction Act (IRA) for heat pumps and weatherization will help Maine further reduce our emissions and save costs.

### Record Pace of Heat Pump Installations and Weatherization Continues in 2022

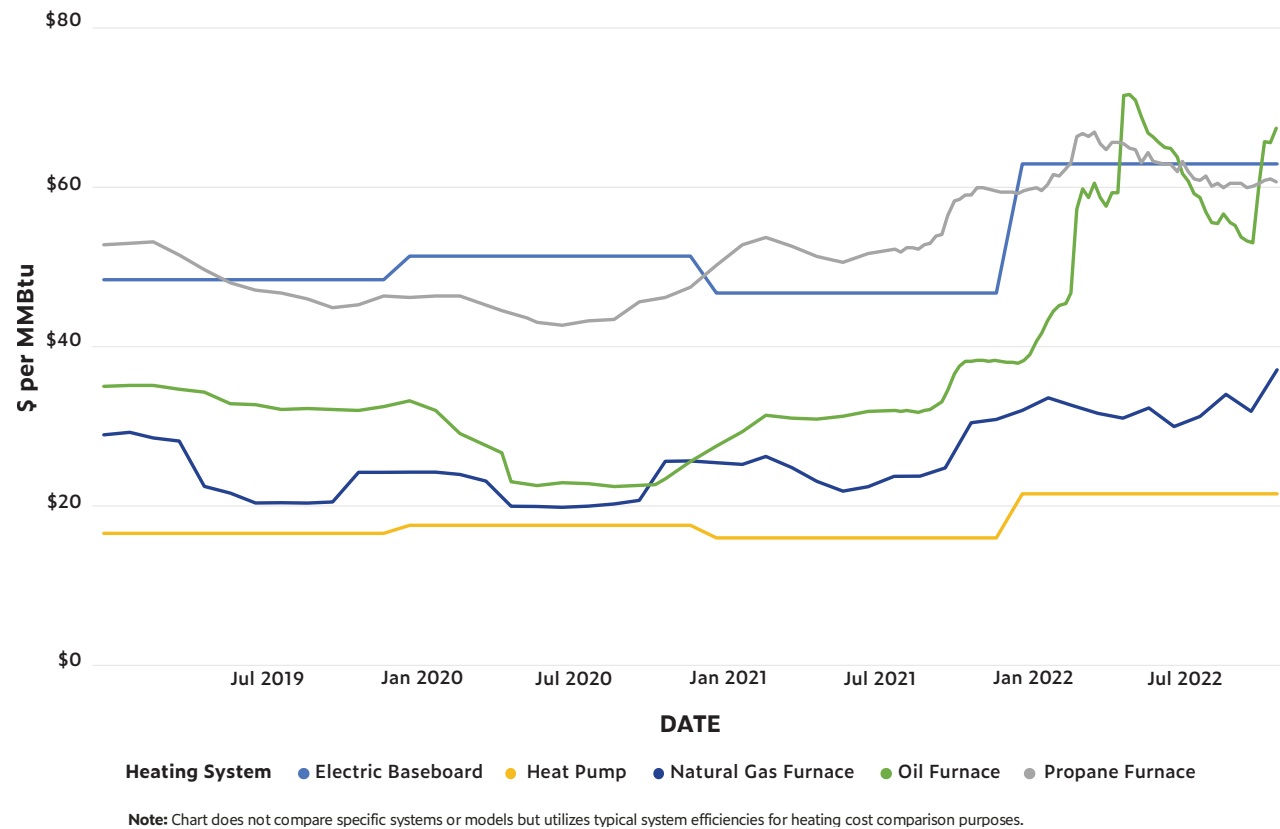
Heat pumps provide energy efficient heating and cooling to Maine's homes and businesses in addition to decreasing the state's high reliance on fossil fuels and reducing greenhouse gas emissions. *Maine Won't Wait* sets a goal for the installation of 100,000 new heat pumps by 2025 with 15,000 new heat pumps for income-eligible households. Since 2019, more than 80,000 new heat pumps have been installed, including 29,000 in 2022, and Maine is on target to achieve this ambitious goal.

The Climate Action Plan sets a goal to double the pace of home weatherization so that, by 2025, 17,500 additional homes and businesses will be weatherized, including at least 1,000 low-income residential units per year. In 2022, over 2,400 homes were weatherized through the combined efforts of Efficiency Maine and MaineHousing.

The chart below compares the costs associated with commonly found heating systems in Maine. Electric heat pumps are the most cost-efficient, low carbon heating source available and are proven to work in cold weather.

Recent federal legislation includes significant programs supporting electrification and improved energy efficiency in buildings. Maine is expected to receive more than \$30 million for weatherization assistance programs for the state and tribal governments, and at least \$18 million for other energy-related programs, from the federal Bipartisan Infrastructure Law (BIL). The Inflation Reduction Act (IRA) also includes new federal rebates for heat pumps and other electric appliance upgrades as well as for energy efficiency improvements.

## Cost Comparison of Common Heating Systems (Maine; 2019 to 2022)



Courtesy of the Governor's Energy Office

## PROGRESS UPDATE

### Transition to Cleaner Heating and Cooling Systems, Efficient Appliances

**Install 100,000 heat pumps by 2025 including at least 15,000 in income-eligible households.**

- More than 29,000 high-efficiency heat pumps were installed in Maine buildings in 2022, surpassing the state's record progress achieved in 2021. More than 1,500 heat pumps were installed in low-income homes. This continued progress means that Maine is on track to meet its goal of 100,000 new heat pumps by 2025.
- Additionally, over 8,900 heat pump water heaters have been installed in Maine buildings over the past year (effective Sept 2022), following more than 10,000 installations in 2021. (See the *Maine Won't Wait* online dashboard for more details.)

*Note: Efficiency Maine reports heat pump data by fiscal year, July 1, 2021 – June 30, 2022. Maine Housing reports heat pump data by calendar year.*

- Efficiency Maine recently launched several new initiatives to promote heat pumps and energy efficiency in Maine communities and industries, including:
  - Hospitality Initiative (\$4 million): Enhanced incentives for businesses in Maine's hospitality industry for ventilation (HVAC), lighting, and refrigeration projects.
  - Schools Initiative (\$8 million): Incentives for schools for energy-efficient heating, cooling and ventilation (HVAC) equipment.

- Municipality Initiative (\$4 million): Incentives for heating, ventilation, and air conditioning (HVAC), lighting and refrigeration projects in small Maine municipality and tribal government buildings.
- Congregate Housing Initiative (\$3 million): Incentives for heating, ventilation, and air conditioning (HVAC), lighting and refrigeration projects in Maine's long-term care facilities.
- *Lead by Example* Initiative (\$3.66 million): Incentives for Maine State buildings for energy-efficient heating, ventilation, and air conditions (HVAC) to transition away from oil- and propane-based heating systems.

- Greenhouse Gas Reduction Fund created with a variety of programmatic opportunities with an emphasis on projects in low-income and disadvantaged communities and greenhouse gas reduction technologies. Some funding will be eligible to be distributed through a 'Green Bank'. In Maine, LD 1659 established the Clean Energy and Sustainability Accelerator ("Green Bank") at Efficiency Maine to promote financing and investment in renewable energy systems, energy efficiency upgrades, fuel switching and electrification, industrial decarbonization, battery storage, microgrids, and clean transportation vehicles and infrastructure.

### Maine Appliance Standards by 2022.

- Efficiency Maine recently completed a study on whole-home heat pump applications which found that, if a heat pump system is properly designed, there is no need for a back-up system. A mobile-home retrofit pilot demonstrated that mobile homes retrofitted entirely with heat pumps stayed warm even on cold winter days.
- Heat Pumps are also promoted in the recently passed federal Inflation Reduction Act, with substantial funding and tax credits available to Maine:

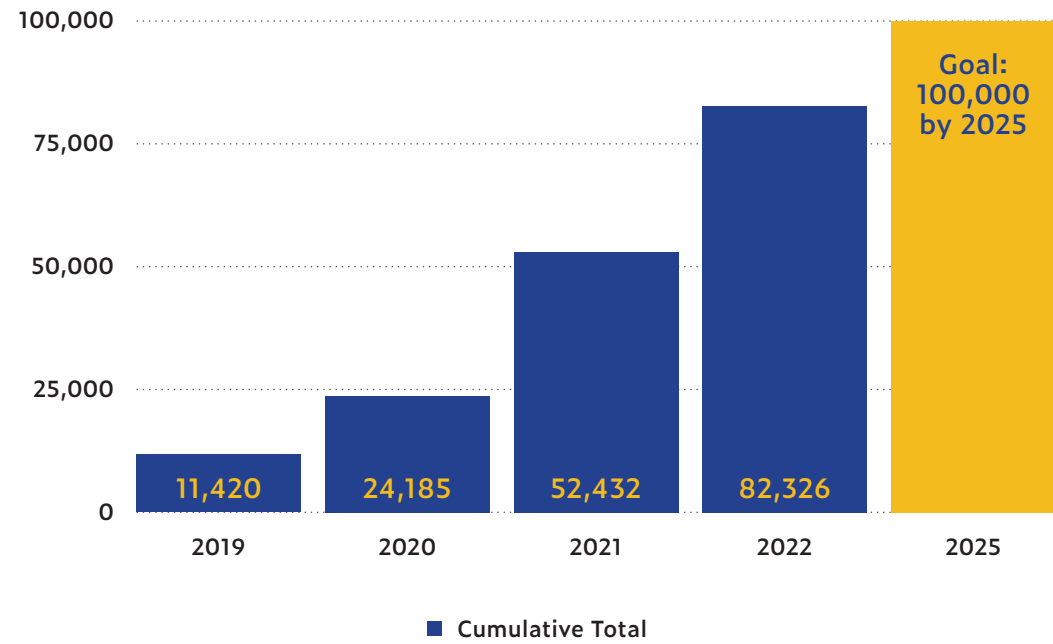
### Accelerate Efficiency Improvements to Existing Buildings

**Double the pace of weatherization: 17,500 additional homes and businesses by 2025 including 1,000 low-income units; 35,000 by 2030.**

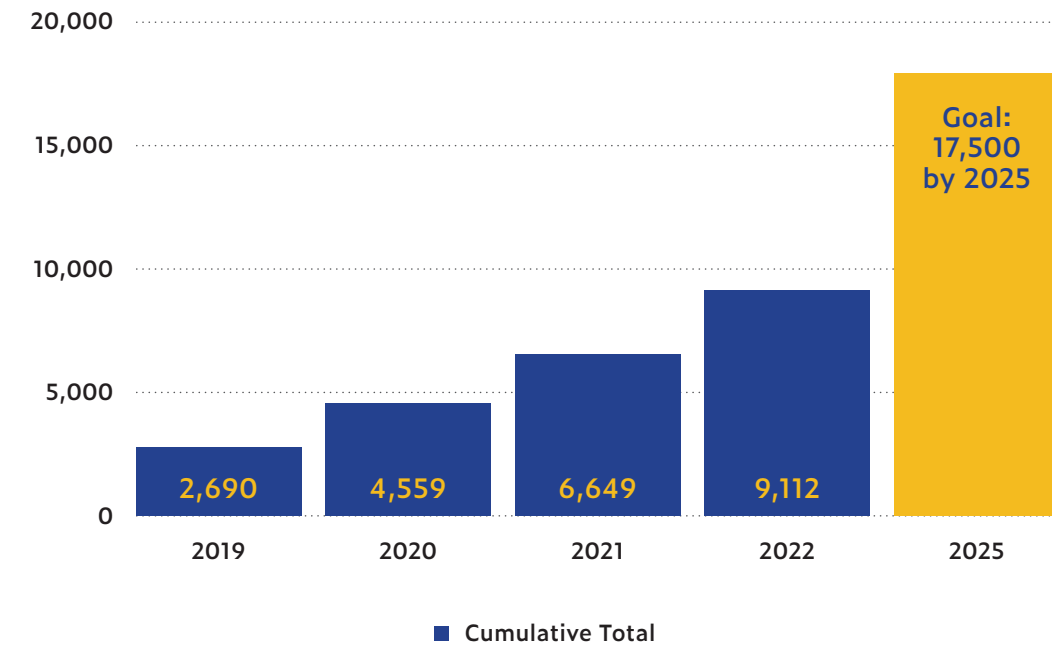
- Maine will receive \$35.9 million for the Home Energy Performance-Based, Whole-House Rebates (HOME Rebates) program which will provide incentives for individual and multifamily dwellings for energy efficiency retrofits.
- Maine will receive \$35.7 million under the High-Efficiency Electric Home Rebate Act (HEEHRA) which will provide point-of-sale rebates for energy efficiency measure in low- to moderate-income dwellings.
- Energy Improvement Tax Credits for both homes (Sec. 25C) and commercial (Sec. 179D) buildings.
- New Efficient Home Tax Credit (Sec. 45L), including multi-family building.

- Efficiency Maine weatherized 2,230 homes in FY 2022 (including low-income) and MaineHousing weatherized 217 homes (January – August 2022) for a total of 2,447 homes.
- Efficiency Maine is expanding its existing residential weatherization program with \$25 million from the Maine Jobs and Recovery Plan to offer subsidized air sealing and insulation upgrades to low- and moderate-income homeowners. As noted above, it will also invest \$25 million to expand incentives for energy efficiency upgrades in municipal, county, and school buildings, and accelerate similar retrofits among small businesses, community organizations, and industrial facilities.

## New Heat Pumps

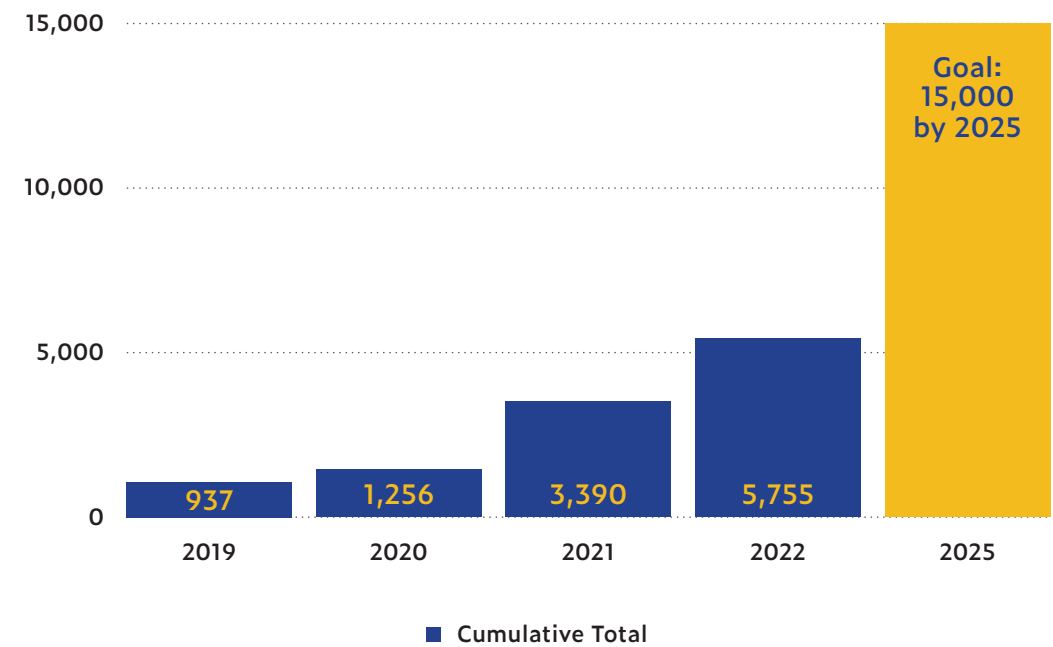


## Homes Weatherized

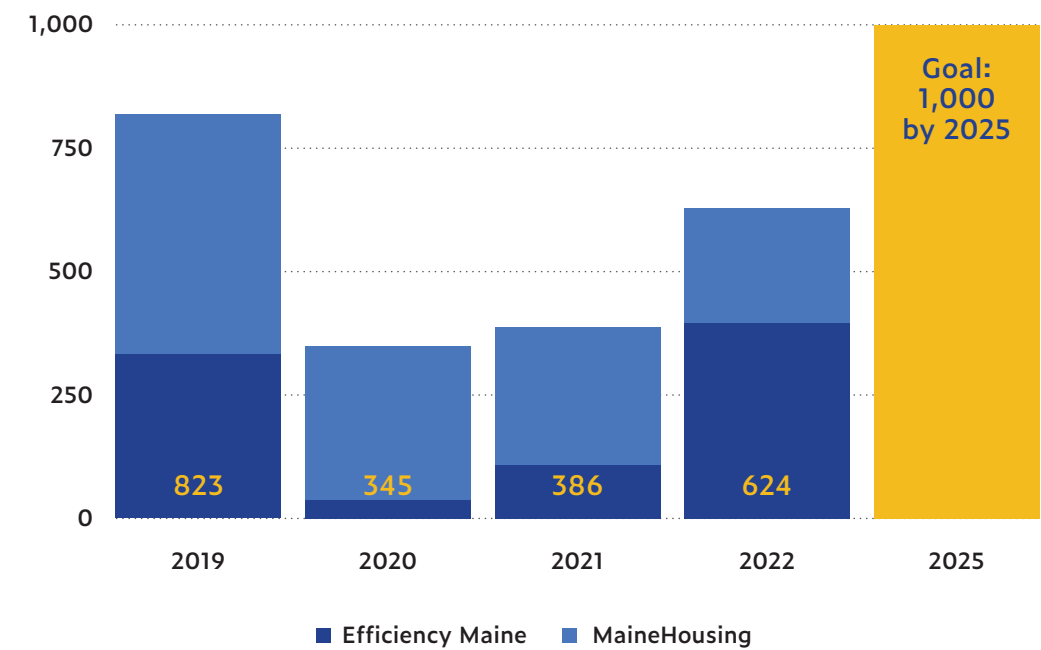


Source: Efficiency Maine & MaineHousing.

## New Heat Pumps: Low-Income



## Homes Weatherized: Low-Income



Source: Efficiency Maine

Source: Efficiency Maine & MaineHousing. Note: Efficiency Maine's reported numbers are aggregated to their fiscal year which runs from July 1 of the previous year to June 30 of the stated year. MaineHousing's reported numbers are based on a given calendar year.



- An additional \$36.9 million for weatherization projects is coming to Maine from the federal Bipartisan Infrastructure Law, which will be administered by MaineHousing through their low-income Weatherization Program. The Weatherization Program provides grants to low-income homeowners and renters to reduce energy costs by improving home energy efficiency.
- MaineHousing received an allotment of weatherization funding of \$31.2 million to be spent over five years through the Bipartisan Infrastructure Law. While MaineHousing receives annual weatherization funding, these funds are distinct and are not permitted to be used to supplement MaineHousing's current weatherization program. Though the proposal is still subject to feedback from the federal administration, MaineHousing anticipates to use these funds to bolster multifamily (i.e., 5 or more units in a single building) weatherization, weatherization workforce development and training, incentives to build contractor capacity, and training facilities to support the growing industry.
- A new commercial Property Assessed Clean Energy (C-PACE) program at Efficiency Maine will promote clean energy upgrades, including

energy efficiency upgrades at commercial properties in participating municipalities. Efficiency Maine's Green Bank is now conducting rulemaking to launch the C-PACE loan program, which was established by LD 340.

- Efficiency Maine recently launched a limited-time \$100 "DIY" Winter Prep Rebate, which will reimburse Maine homeowners and tenants up to \$100 toward the purchase of select weatherization and insulation products.
- Efficiency Maine has begun offering free virtual consultations for businesses interested in learning more about how to get started on an energy-efficiency project.

### Advance the Design and Construction of New Buildings

**Phase in modern, energy-efficient building codes to reach net-zero carbon emissions for new construction in Maine by 2035.**

- The Maine Technical Building Codes and Standards Board has initiated stakeholder process and rulemaking to adopt the 2021 International Energy Conservation Code (IECC) into the Maine Uniform Building and Energy Code (MUBEC). The 2021 IECC is currently Maine's "stretch code,"

requiring improved energy performance in new buildings greater than the current MUBEC which follows the 2015 IECC. It is anticipated that 2021 IECC will be adopted in Spring 2023.

- MaineHousing adopted the most recent energy building codes (2021 IECC) for new construction and is required by a new law to achieve passive house standard equivalency in all new construction by 2024. Additionally, MaineHousing will require all new and renovation projects to install electrical service capacity for EV chargers and rooftop solar and mandates the use of electricity for heating and domestic hot water. Finally, MaineHousing's smaller development programs, including the Rural Affordable Rental Housing Program, Affordable Housing Initiative for Maine Islands and Affordable Homeownership Program require buildings to utilize all electric equipment for heating, domestic hot water, and cooking.
- The Maine Jobs and Recovery Plan provided \$10 million in funding for affordable homeownership and an additional \$10 million for rural affordable rental housing, in combination with a \$10 million investment in rental housing from MaineHousing. Both programs require construction projects to be energy efficient and EV/PV ready.

### Building code training for contractors and code-enforcement officials.

- The Office of the State Fire Marshall is currently training building officials on the newer editions of the IECC codes to prepare them for the MUBEC transition. Over the past year, Efficiency Maine also provided a series of subsidized trainings on the new building energy code. Through their "Introduction to the IECC" workshop series and six subsequent workshops on best practices for the residential and commercial codes, Efficiency Maine was able to train 765 code enforcement officers and contractors.
- The federal Inflation Reduction Act (IRA) includes funding for building energy code adoption activities and programs to train and educate contractors on installation of home energy efficiency and electrification improvements.

### Advance the Design and Promote Climate-Friendly Building Products

**Increase the use of climate-friendly Maine forest products, including mass timber and wood-fiber insulation.**

- \$20 million has been awarded from the Forestry Recovery Initiative, funded by the Maine Jobs and Recovery Plan and administered by the Maine Technology Institute, to support Maine's forest products industry including development of climate-friendly building materials such as wood-fiber insulation and cross-laminated timber. The second and final phase of the program, administered by the Maine Technology Institute (MTI), provides \$14 million in grants ranging from \$250,000 to \$2,000,000 to forestry companies to support forward-looking forestry projects that address new market demands, provide new sustainable products, or otherwise advance the long-term stability of the forestry industry.

### "Lead by Example" in Publicly Funded Buildings

**"Lead by Example" in state government by 2022.**

- MaineDOT has begun construction of a pilot solar project on 3 state properties in Augusta. Once online, the arrays will generate approximately 8.5 MW of solar energy - enough to power about 1,000 homes - and are estimated to reduce state carbon emissions by up to 2,000 metric tons annually and reduce state electricity costs by at least \$7.2 million over the next 20 years.
- The state is preparing the 10-year Augusta State Facilities Master Plan for approval by the Legislature, which will recommend strategies to reduce greenhouse gas emissions in state operations and buildings in Augusta, improve resilience to the impacts of climate change, and support the local economy of the City of Augusta.
- The Governor's Office of Policy Innovation and the Future is hosting a series of webinars for state agency staff to facilitate learning and share case studies about how agencies can lead by example on topics including employee commuting, carpooling, and active transportation; renewable energy at state facilities; climate vulnerability of state assets and workforce; the state's telework policy; and more.

## Municipal Heat Pump and Energy Efficiency Incentives

Several Maine communities have established local programs to incentivize heat pump installations and weatherization.

The City of Bangor has developed a grant program to make heat pumps and weatherization affordable at very low or no cost to eligible low-income homeowners. The city is working with Efficiency Maine for the purchase and/or installation cost associated with heat pumps or weatherization in eligible single-family homes located within the City of Bangor. The city will offer grants of up to \$2,000 which can be used in conjunction with current rebates available through Efficiency Maine.

The City of Presque Isle established the Winterization and Rental Modernization (WARM) Program to offer local landlords low interest loans to improve housing conditions. The loan program allows for up to \$20,000 to eligible property owners to update windows and doors, install energy efficient heating and cooling systems, improve insulation rating of rental property, and address life-safety code violations.

The City of South Portland and the City of Portland launched the "Electrify Everything" program to help implement their shared One Climate Future climate action plan. In South Portland, rebates are available for electric vehicles, lawn equipment, e-bikes, heating & cooling systems, and home weatherization. The rebates are on top of Efficiency Maine and other rebates, and the program is available to South Portland residents with a household income up to 100% of Area Median Income (below \$111,700 for a family of 4). In Portland, the program offers competitive pricing for solar panel installation, heat pump and heat pump water heater installation, and community solar subscriptions for those who can't have solar on their homes, such as renters and condominium owners.

The City of Auburn used \$250,000 of Auburn's American Rescue Plan Act (ARPA) funding to create the Sustainable Auburn Matching Rebate Program, which doubles the Efficiency Maine rebates for energy efficient home improvements. The maximum grant amount per address per year is \$1,000.

Eastern Maine Electric Cooperative (EMEC) offered a limited-time \$250 rebate for co-op members for the installation of a heat pump. These rebates were required to stack on top of the existing Efficiency Maine rebates, further reducing barriers to heat pump adoption in EMEC's territory.



- Efficiency Maine is administering a \$3.66 million initiative from VW settlement funds to help government building managers meet Maine's carbon reduction goals. The *Lead by Example* (LBE) Initiative provides agencies of the State of Maine with technical and financial assistance for completion of projects that demonstrate a path towards net zero carbon buildings. The initial priority is replacing propane- and oil-based heating systems with heat pump systems – so-called “beneficial electrification.” Other efficiency measures that qualify for Efficiency Maine's traditional programs will also be supported, such as weatherization, LED lighting retrofits, energy recovery ventilation, and solar.
- As the state's second largest employer, the State of Maine has implemented an executive branch telework plan and will collect estimates of greenhouse gas emissions saved by teleworking state employees through a tracking dashboard.

**Enhance grant and loan programs to support efficiency and renewable energy programs in municipal, tribal, school, and public-housing construction and improvements. Provide recognition programs for those projects making outstanding efforts.**

- At the June 2022 Communities Leading on Climate Conference (see strategy H), Efficiency Maine launched a \$15 million initiative from the Maine Jobs & Recovery Plan to help Maine's public schools, towns, cities, and Tribal governments make energy efficiency improvements and reduce their energy costs. The program dedicates

\$8 million for school efficiency projects, \$4 million for municipal efficiency projects, and \$3 million for nonprofit residential facilities.

## Renewable Fuels Standard (RFS)

**Investigate options for renewable Fuels Standard (RFS) for heating fuels.**

- The Legislature considered action related to renewable fuels, but the legislation was not advanced in the first regular legislative session. Lawmakers and the state may consider options to advance the use of innovative renewable fuels in the future.

## Replace Hydrofluorocarbons (HFCs) with Climate-Friendly Alternatives

**Adopt hydrofluorocarbons phase-down regulations.**

- The Department of Environmental Protection has finalized regulations to implement the phase-down of hydrofluorocarbons, also known as climate super pollutants. The prohibition on certain end uses began to take effect on January 1, 2022.

## WindowDressers: Reducing Emissions, Keeping Homes Warm & Building Community

WindowDressers is a nonprofit on a mission to reduce heating costs and fossil fuel consumption for Maine homes by lowering the amount of heat loss through windows – and building community along the way. Volunteers gather at Community Builds across the state to assemble the low-cost insulating window inserts, which serve as custom, interior-mounted, reusable storm windows.

WindowDressers estimates that inserts save 1–2 gallons of heating fuel per square foot of insert per year. Read more about WindowDressers at [MaineWontWait.org](http://MaineWontWait.org).





## STRATEGY C

### Reduce Carbon Emissions in Maine's Energy and Industrial Sectors through Clean Energy Innovation

Clean electricity from lower-emission resources is essential to support Maine's transition from fossil fuels to electricity in key sectors such as transportation and buildings. Maine law requires that 80% of electricity consumed in Maine to be renewable by 2030, with a goal of 100% by 2050. The clean energy transition must be managed effectively to ensure reliability and affordability. Pairing energy storage with small distributed and large-scale renewable resources provides opportunities to maximize the value of renewable energy to our

grid. There is significant federal funding in the federal Bipartisan Infrastructure Law (BIL) for the expansion of affordable, clean energy generation and transmission networks. In addition, the Inflation Reduction Act (IRA) extended federal tax credits for renewable energy development, including solar (both residential and utility-scale), onshore wind, offshore wind, storage, and clean hydrogen. These federal funding opportunities will help to support Maine's continued renewable energy progress.

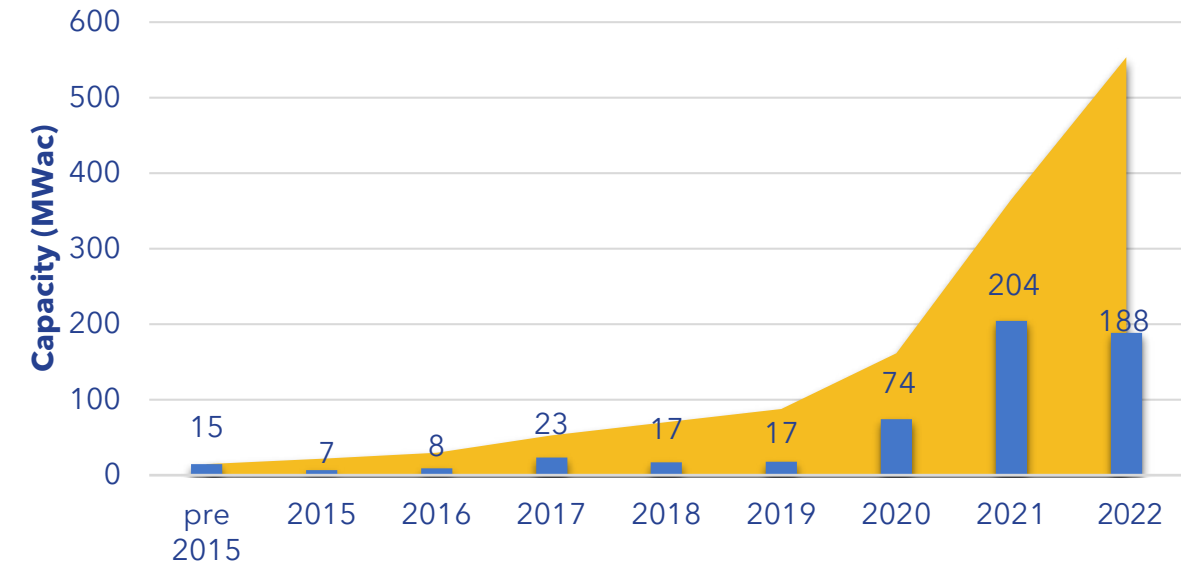
### Renewable Energy Advancement

Solar energy development is key to achieving Maine's renewable energy goals, reducing greenhouse gas emissions, and growing Maine's clean energy sector. As the state continues to grow its renewable energy economy, several efforts are underway to ensure responsible and sustainable development that produces a broad range of benefits to the electric system, as well as to the state, through avoided costs as well as resilience, environmental, public health, and economic benefits. Such efforts include:

The Governor's Energy Office (GEO) and the Maine Department of Agriculture, Conservation and Forestry (DACF) convened an Agricultural Solar Stakeholder Group to make policy recommendations to balance the need to protect Maine's current and future farmland against the need to develop sources of renewable solar energy.

The GEO is hosting a stakeholder group to advise and support the development of a cost-effective successor program to foster the continued development of distributed generation in Maine following the conclusion of the net energy billing program in 2023. The stakeholder group agreed that a successor program should be designed to optimize net benefits and ratepayer cost-effectiveness and consider input from a broad range of stakeholders, specifically accounting for barriers faced by low- and moderate-income, fixed-income, and historically marginalized communities.

## 553 Megawatts of Solar is Currently Installed in Maine



Source: Governor's Energy Office. Data is through Sept. 30, 2022.

## PROGRESS UPDATE

### Ensure Adequate Affordable Clean-Energy Supply

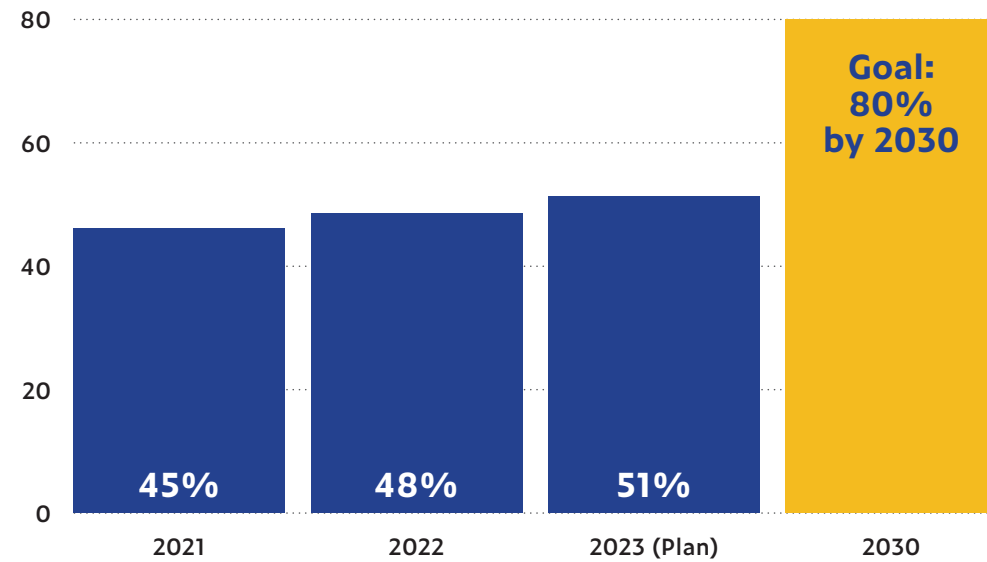
80% of Maine's energy usage from renewable generation by 2030.

- Maine electric suppliers are required to provide an increasing amount of new renewable energy to Maine consumers, reaching 80% total renewable energy provided by 2030. Maine is on track to meet the standard as required by statute and reached 48% in 2022. To meet these targets in the longer term, Maine will need to make additional investments in affordable renewable energy.
- In June 2021, the Legislature passed LD 1710, An Act to Require Prompt and Effective Use of Renewable Energy Resources of Northern Maine. The Act establishes the Northern Maine Renewable Energy Development Program, and requires the Public Utilities Commission (PUC) to conduct a competitive solicitation for transmission and generation project proposals in accordance with the program. In October 2022, the PUC selected

two projects to promote renewable energy development in northern Maine. The first is for the development of a 345 kilovolt (kV) transmission line to connect renewable energy resources located in northern Maine with the New England grid and the second is a renewable energy generation project to transmit power across that transmission line.

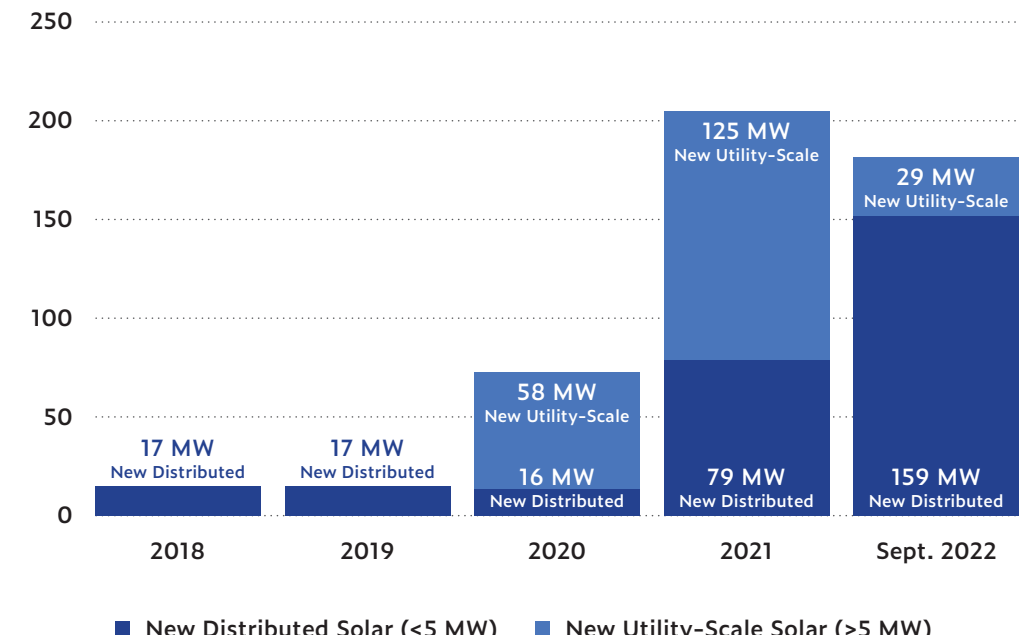
- There is significant federal funding to support increased renewable energy. The federal Bipartisan Infrastructure Law (BIL) includes funding for the expansion of affordable, clean energy generation and transmission networks. The Inflation Reduction Act (IRA) encompasses \$369 billion in spending for climate change related programs and grants that aim to accelerate the deployment of clean energy technologies, reduce emissions, lower energy prices, and build a reliable and affordable energy sector. There are substantial opportunities to expand clean energy manufacturing, distributed generation, building modernization, and energy efficiency.

## Maine Renewable Electricity



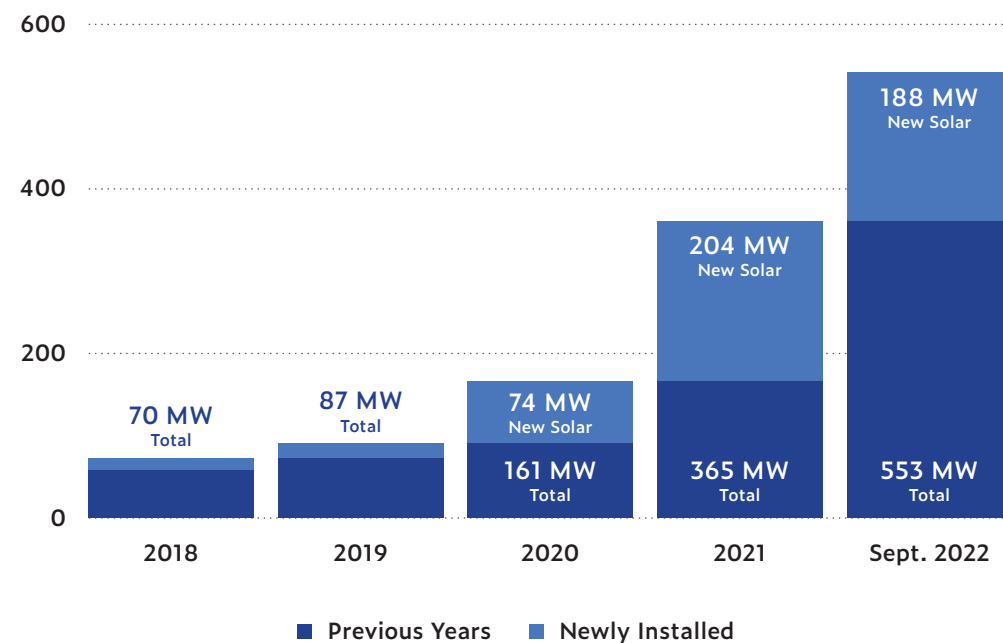
Source: Maine Governor's Energy Office

## Annual Maine Solar Capacity Additions by Size



Source: Maine Governor's Energy Office

## Solar Capacity Installed in Maine (Megawatts)



Source: Maine Governor's Energy Office

- IRA includes an array of energy program opportunities for State Energy Offices in the form of grants and loans from a variety of federal agencies:
  - Two-thirds of IRA's funds are in the form of federal tax credits supporting the production of electricity from clean energy sources and investments in renewable energy technologies.
  - Projects can choose between a production or investment tax credit and there are bonus credits for energy justice components such as projects on brownfield sites, in areas with significant fossil fuel employment, and in low-income or tribal communities. Credits include direct pay and transferability options which allow non-profits and municipalities to take advantage. Most programs also have prevailing wage, workforce, and/or apprenticeship requirements.

**Set achievable targets for cost-effective deployment of technologies such as offshore wind, distributed generation, and energy storage.**

### Solar

- As a result of forward-looking policies on renewable energy and solar incentives passed by Governor Mills and the Legislature, solar electricity generation has significantly expanded in 2021 and 2022. Solar generation reached 204 MWac in 2021 and 180 MWac in 2022 (as of September 30th), driven largely by the rapid expansion of small-scale distributed generation projects under 5MW in size. 538 megawatts of solar is currently installed in Maine.

### Offshore Wind

- The Maine Offshore Wind Roadmap will create an economic development plan for the offshore wind industry in Maine. The Roadmap is being developed by an Advisory Committee supported by four working groups with technical subject

matter expertise provided by key stakeholders: Energy Markets and Strategies, Environment and Wildlife, Fisheries, and Supply Chain, Workforce, Ports and Marine Transportation. The Advisory Committee and expert Working Groups have met more than 75 times since July 2021. The Offshore Wind Roadmap is expected to be completed in early 2023.

- The proposed Gulf of Maine Floating Offshore Wind Research Array will allow the state, the fishing industry and many others to learn about potential impacts of floating offshore wind together, in order to ensure Maine develops this industry in a manner that capitalizes on our innovative technology and abundant resources, while protecting our interests, industries, environment and values. After nearly a year of extensive stakeholder outreach and analysis, in October 2021 the Governor's Energy Office (GEO) submitted an application to the federal Bureau of Ocean Energy Management (BOEM) to lease a 15.2-square-mile area nearly 30 miles offshore in the Gulf of Maine for the nation's first floating offshore wind research site in federal waters. By addressing fundamental questions about how offshore wind can exist in the Gulf of Maine, the intent of the research array is to advance the development of Maine's offshore wind economy while informing the responsible growth of floating offshore wind in the United States and beyond. Adopted with bipartisan support in the Maine

Legislature, Governor Mills signed LD 336 in June 2021 declaring Maine's offshore wind research array to be in the public interest and authorizing the PUC to negotiate a power purchase agreement of up to 144 MW with the University of Maine's offshore wind development partner, New England Aqua Ventus.

- A port assessment engineering study (completed November 2021), which evaluated the physical and technical characteristics of various locations in the Port of Searsport, identified multiple sites for consideration as part of a hub for offshore wind. Governor Mills has also directed her administration to conduct a robust public process and engage with key stakeholders and community organizations about the Port of Searsport. This stakeholder process began in 2022. A companion study on broader offshore wind port needs in Maine is also underway and will analyze how other Maine ports, including the Ports of Portland and Eastport, can play important roles supporting the offshore wind industry.

#### Storage

- LD 528 set statutory targets for energy storage: 300 megawatts (MW) by 2025, 400 MW by 2030. The goal of 400 megawatts of energy storage represents about 20% of Maine's peak electric demand in 2020, making these goals some of the most ambitious in the nation.



## Initiate a Stakeholder Process to Transform Maine's Electric Power Sector

### Power sector stakeholder process by 2022.

- LD 1959 An Act Regarding Utility Accountability and Grid Planning for Maine's Clean Energy Future, sets service standards for utility operations and requires grid planning to improve system reliability and climate change protection planning. It instructs the PUC to undertake a 5-year process for integrated grid planning that includes a robust stakeholder process. The Governor's Energy Office (GEO) is actively engaging with the PUC, utilities, environmental NGOs, and other stakeholders to design this stakeholder process.
- LD 936 established a goal of 750 MW, of distributed generation under the net energy billing programs. The bill also set a limit on distributed generation resources between 2 and 5 MW eligible for enrollment in net energy billing and concludes the program for these resources on December 31, 2024. In addition, LD 936 established a stakeholder group to "consider various distributed generation project programs to be implemented between 2024 and 2028 and the need for improved grid planning." The GEO convened the Distributed Generation Stakeholder Group to issue recommendations that support continued development of renewable energy in Maine through cost-effective distributed generation. The group delivered its initial report to the Legislature on December 31, 2021 and will deliver a final report by January of 2023.

## Accelerate Emissions Reductions of Industrial Uses and Processes

### Launch Industrial Task Force by 2022.

- The Industrial Task Force was established to promote collaboration, innovation and grant opportunities to support greater energy efficiency in the industrial sector and the reduction of industrial and large business emissions. Since September 2021, the Industrial Innovation Task Force has met quarterly to discuss relevant topics for industrial decarbonization including Efficiency Maine's Commercial and Industrial Custom and Prescriptive Program, Maine's emissions profile, national

trends for industrial decarbonization, carbon sequestration, wasted heat and heat recovery, and federal funding opportunities.

- Maine DEP adopted a new rule, effective October 2022, requiring new stationary generators of at least 1,000 brake horsepower (747 kilowatts) to meet Tier V emission standards or limit operation to 500 hours per year. These standards will limit criteria pollutant emissions and promote the use of lower carbon fuels from new industrial facilities such as aquaculture and ensure that upgraded generators at existing facilities minimize emissions.
- Maine has joined a multi-state Northeast consortium to explore funding opportunities through the Department of Energy's (DOE) Regional Clean Hydrogen Hubs initiative. Partners include the states of New York, Rhode Island, Connecticut, New Jersey, and Massachusetts, as well as a diverse set of public and private hydrogen ecosystem partners from across the region. The coalition will focus on the integration of renewables - such as onshore and offshore wind, hydropower, and solar PV - into clean hydrogen production, and the evaluation of clean hydrogen for use in transportation, including for medium and heavy-duty vehicles, heavy industry, and power generation applications or other appropriate uses consistent with decarbonization efforts in tandem with electrification.

## Encourage Highly Efficient Combined Heat and Power (CHP) Facilities

### Analyze CHP policies.

- The Industrial Innovation Task Force is considering CHP policies as part of its scope.
- LD 1202: An Act To Establish a Wood-fired Combined Heat and Power Program was signed into law by Governor Mills. It encourages the development of combined heat and power projects. The net generating capacity of a program participant may not be less than 3 megawatts or more than 10 megawatts, and the total net generating capacity of all program participants combined may not exceed 20 megawatts.

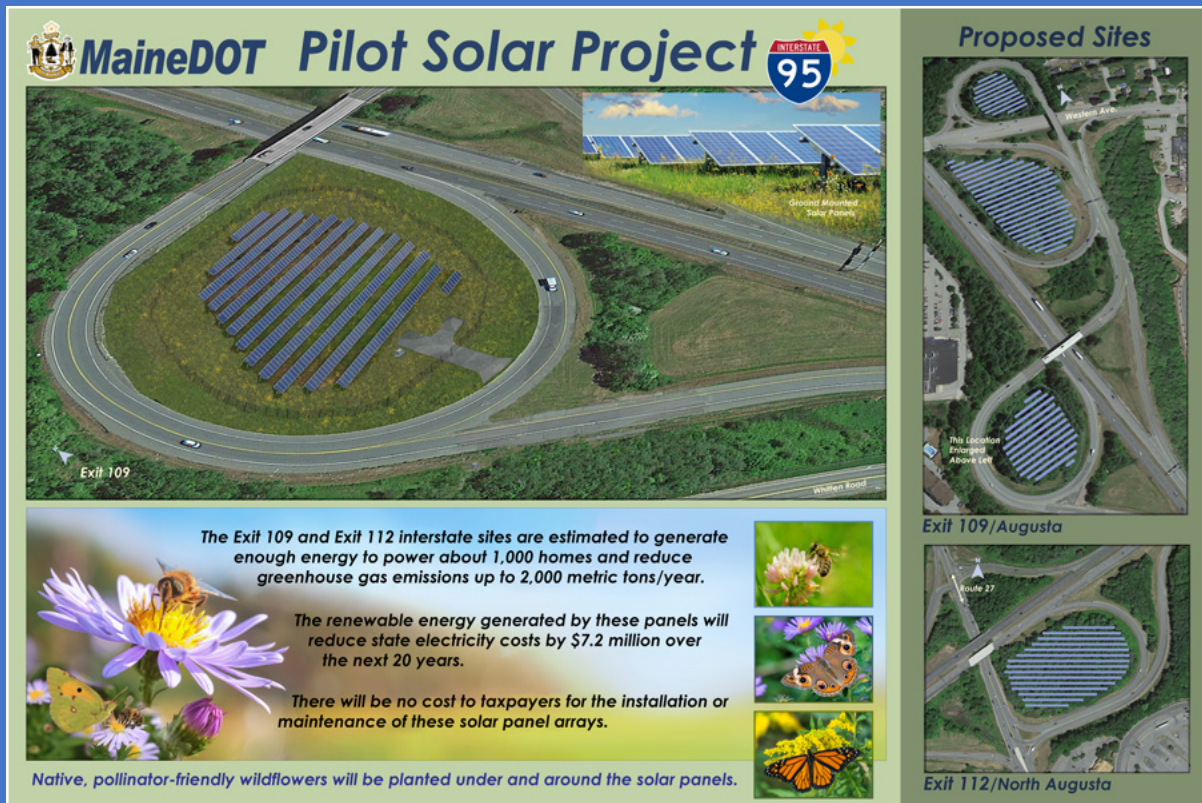



## MaineDOT Augusta Solar Array

MaineDOT broke ground in Augusta 2022 on the construction of a pilot solar project on 3 state properties in Augusta. The three projects are located at the Augusta Airport and inside the I-95 interchanges at Exits 109 and 112. Once completed, the arrays will provide low-cost renewable energy to power both the Capital complex and East Campus.

The arrays will generate approximately 8.5 MW of solar energy - enough to power about 1,000 homes - and are estimated to reduce state carbon emissions by up to 2,000 metric tons annually and reduce state electricity costs by at least \$7.2 million over the next 20 years. Each solar array site will also include pollinator-friendly vegetation management practices.

The solar arrays by MaineDOT support Governor Janet Mills' *Lead by Example* plan for state government. The *Lead by Example* plan was recommended by *Maine Won't Wait* and encourages energy efficiency and sustainability measures in state government to reduce long-term operating costs and advance state climate goals.



**MaineDOT Pilot Solar Project** 

**Proposed Sites**

**Exit 109**

**Exit 109/Augusta**

**Exit 112/North Augusta**

**Ground Mounted Solar Panels**

**This Location Emerges Above Leaf**

**Route 27**

**Western Ave.**

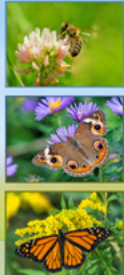
**Whittemore Road**

**Native, pollinator-friendly wildflowers will be planted under and around the solar panels.**

**The Exit 109 and Exit 112 interstate sites are estimated to generate enough energy to power about 1,000 homes and reduce greenhouse gas emissions up to 2,000 metric tons/year.**

**The renewable energy generated by these panels will reduce state electricity costs by \$7.2 million over the next 20 years.**

**There will be no cost to taxpayers for the installation or maintenance of these solar panel arrays.**





## STRATEGY D

### Grow Maine's Clean Energy Economy and Protect Our Natural-Resource Industries

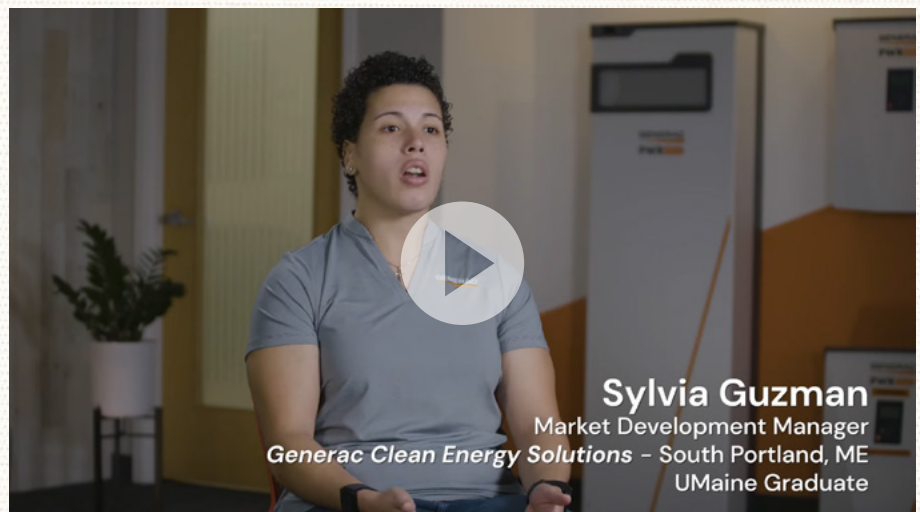
Maine's transition to a clean energy economy will reduce greenhouse gas emissions while creating new economic opportunity. Growth in the state's clean energy and energy efficiency sector will require a skilled workforce, creating new career opportunities. Education and training opportunities can help ensure access to these opportunities for all Maine people.

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.

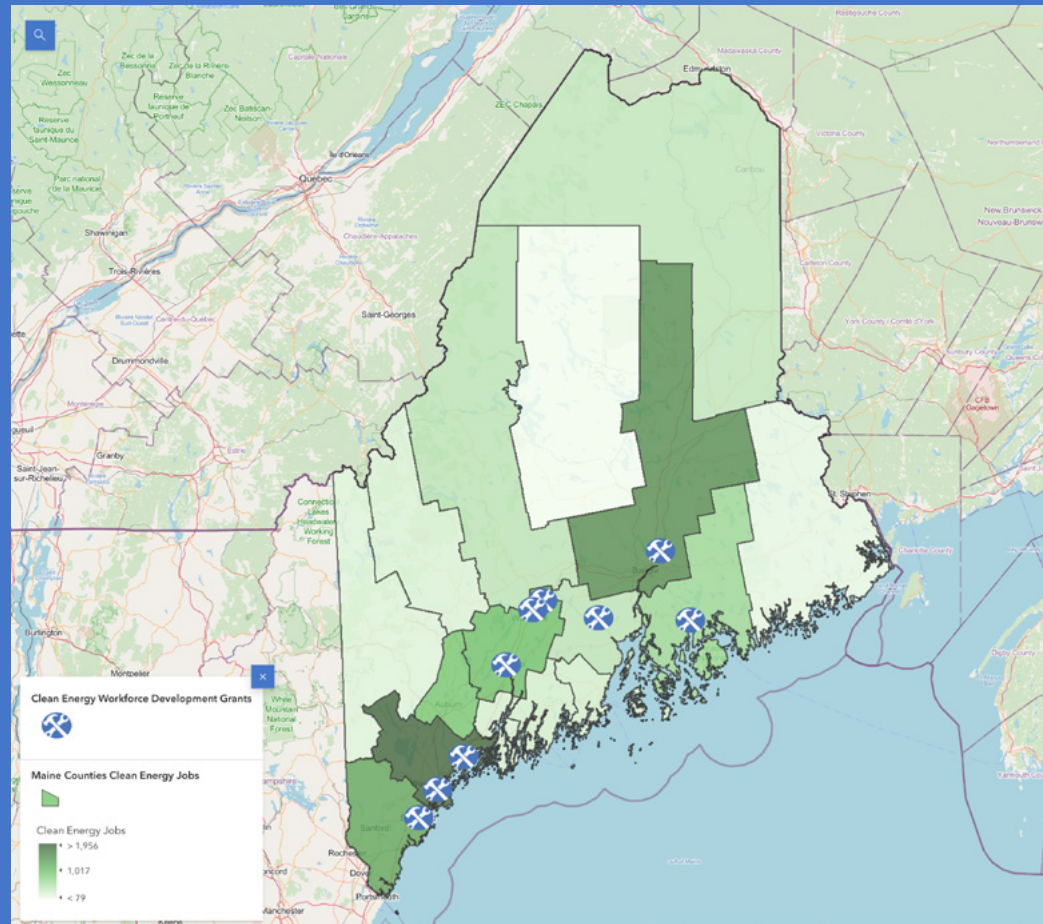
The Maine Jobs and Recovery Plan has recently provided funding for significant investments in natural resource industry processing facilities, and the state has launched a new clean energy workforce and innovation initiative to achieve Governor Mills' goal of doubling the state's clean energy workforce.

### **Maine Won't Wait Video: The New Economy**

With a goal to have 30,000 clean energy and energy efficiency jobs in Maine by 2030, the state has the opportunity create meaningful career pathways for Maine college graduates, attract and retain workers and their families, and create exciting new opportunities for students of all ages. In this video, Maine people now finding success in clean energy careers talk about their path, why work in sustainability and climate-friendly jobs is important, and how they are helping build an economy of the future here in Maine. Watch the video on YouTube by searching for "Maine Climate Council" or visit [MaineWontWait.org](http://MaineWontWait.org).



## Launch of the Clean Energy Partnership



Clean Energy Partnership workforce grant locations and clean energy jobs in each Maine county.

The Governor’s Energy Office (GEO) established the Clean Energy Partnership in 2022 to advance clean energy partnerships and initiatives to grow the workforce and increase innovation in Maine’s clean energy sector, in support of Governor Mills’ goal to reach 30,000 clean energy jobs in Maine by 2030, more than double what it is today.

GEO was awarded \$2.9 million in funds from the Maine Jobs and Recovery Plan to support qualified individuals and entities in advancing workforce development and training for the clean energy and energy efficiency fields. The Workforce Development Request for Proposals (RFP) solicited proposals to provide technical training, develop curriculum and/or training tools, provide experiential learning, job placement services to current and potential energy efficiency and clean technology employees, and/or other services related to clean energy and energy efficiency workforce development and training. In November 2022, GEO awarded approximately \$2.5 million in grants to clean energy employers, educational institutions, industry associations, and nonprofit organizations to develop new curricula, provide technical training and experiential learning, deploy new job placement services, and other activities related to workforce development and training.

The awarded projects are anticipated to engage with over 1,600 individuals, attracting new workers to the clean energy and energy efficiency workforce, providing career training and upskilling opportunities to existing workers, increasing diversity and representation in the clean energy workforce, and facilitating new and expanded clean energy apprenticeship, pre-apprenticeship, and internship models to facilitate entry into rewarding and high-paying jobs.

For more information, Clean Energy Partnership | Governor’s Energy Office ([maine.gov](http://maine.gov))

## PROGRESS UPDATE

### Take Advantage of New Market Opportunities

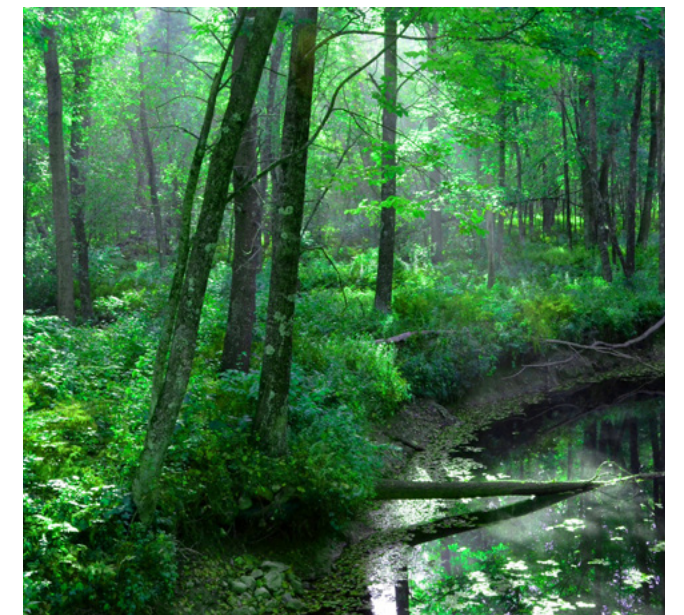
Support Maine’s natural resource economies to adapt to climate change impacts.

- The pandemic served as a powerful catalyst as consumers sought out, and innovative producers developed, new ways of purchasing Maine-grown and harvested foods. Expansion of core processing infrastructure could increase Maine’s agriculture and seafood production capacity, unlock new market opportunities, and improve their resilience to climate effects or market disruptions. The Maine Jobs & Recovery Plan includes three initiatives to support the economic recovery of Maine’s natural resource industries – forestry, fishing and farming – from impacts due to the COVID-19 pandemic. In the last year, the Governor’s Jobs Plan has awarded approximately \$41 million in economic recovery funds to 391 businesses in these heritage sectors across all 16 counties in Maine.
  - To support the economic recovery of Maine’s seafood industry, the Department of Marine Resources established the \$16 million Maine Seafood Dealer and Processor COVID-19 Response and Resilience Grant Program (SDPP), administered by Maine Technology Institute. The program committed nearly \$16 million in federal funds, including \$10 million allocated through the Maine Jobs and Recovery Plan, to help seafood dealers and processors in Maine recover from the COVID-19 pandemic, invest in technology and infrastructure, and increase resiliency to future market disruptions.
  - The Department of Agriculture, Conservation and Forestry (DACF) established the Agricultural Infrastructure Investment Program to provide nearly \$20 million in recovery grants through the Maine Jobs and Recovery Plan to Maine farm and food processing businesses. These grants can be used for equipment purchases, construction, facilities improvement, utility upgrades,

capacity-enhancing technology, technical assistance, and other capital expenses. Improving agricultural infrastructure will allow this sector to increase production and storage capacity, enhance supply chain resilience, and drive growth within the state’s agricultural and food economy while increasing the overall production of Maine-grown foods. Sixty-four grants were awarded and will be administered by the Department.

### Grow Maine’s forest-products industry through bioproduct innovation.

- Governor Mills announced the \$20 million Forest Recovery Initiative grant program through her Maine Jobs & Recovery Plan in November 2021. The first phase of the program provided financial relief to 219 forest products industry businesses that experienced negative impacts from the pandemic to help them sustain the viability of their business. The second and final phase of the program, administered by the Maine Technology Institute (MTI), will provide grants to support forward-looking forestry projects that address new market demands, provide new sustainable products, or otherwise advance the long-term stability of the forestry industry.





- The Pandemic Recovery for an Innovative Maine Economy (PRIME) Fund, administered by the Maine Technology Institute (MTI), will award \$39 million in grants to help Maine technology companies recover from the pandemic, invest in new products and business lines, attract new customers, and create long-term economic growth. The fund focuses on businesses engaged in Maine’s targeted technology sectors, which include biotechnology, composites and advanced materials, forestry and agriculture, marine industries, and precision manufacturing.

**Establish the University of Maine as the coordinating hub for state-applied research on forestry, agriculture, and natural land-related climate concerns.**

- The University of Maine has launched the Maine Climate Science and Information Exchange (MCSIE) to coordinate climate science in support of *Maine Won’t Wait*. MCSIE is developing a data-

base of current climate science research in and about Maine and will engage with stakeholders to identify information needs. MCSIE has three areas of specialization: marine ecosystems and coastal communities, agriculture and food systems, and forests and forest products. (See Strategy E updates for more information about MCSIE.)

- The University of Maine’s Advanced Structures and Composites Center is expected to receive \$26 million as part of the federal budget appropriations process which will partially fund a new facility called the GEM Factory of the Future. The funding will also be used to conduct research in the facility to advance large-scale, bio-based additive manufacturing using technologies such as artificial intelligence, high-performance computing and arrays of large 3D printers and subtractive systems. Work would include research on the manufacture and testing of large new systems made from bio-based and other advanced materials, focusing on digital manufacturing processes.

**Increase the amount of food consumed in Maine from state food producers from 10% to 20% by 2025 and 30% by 2030.**

- The availability of current data on the total amount of food consumed in Maine from state producers is limited and varies widely depending on the food commodity, and it is not clear if the 10% target for food consumed in Maine that was reported in *Maine Won’t Wait* accurately captures the current overall baseline.
- Maine DACF estimates that for the healthcare sector in Maine, Maine-grown food sourcing is hovering around 5-7%. Maine prisons are working towards an overall goal of 20% Maine-sourced food by 2025, and today typically procure between 10 and 30% of their food from Maine food producers. In Fiscal Year 2022, \$375,000 was spent toward buying local food for public schools, including \$125,000 from the Local Food Fund.
- The US Department of Agriculture’s (USDA) Agricultural Marketing Service awarded \$1.3 million in funding and signed a cooperative agreement with Maine to establish “Maine Food for Maine People,” a project that will expand marketing opportunities for underserved producers and aggregators. Maine will partner with the Good Shepherd Food Bank, Cultivating Community, and Mi’kmaq Farms to purchase over \$1 million worth of agricultural products from no fewer than seven socially disadvantaged producers. These partners will target farms that are black-owned, women-owned, or Native-owned or otherwise meet the USDA definition of socially disadvantaged. It is estimated these beneficiaries will represent upwards of 100 individual businesses. Through the “Maine Food for Maine People” project, food will be distributed through established and emerging pathways to feed underserved Maine communities. These pathways include existing Eligible Recipient Agencies of The Emergency Food Assistance Program (TEFAP) and tribal pantry networks, as well as innovative, culturally responsive distribution models rooted in community demand.

- The Maine Milk Commission estimates that 67% of all milk produced in Maine is staying in Maine and 26% of Maine’s production going to provide milk to the greater Boston metropolitan area.
- The DACF estimates, based on US agricultural census data, that approximately 30% of food grade grains stay in state for processing and local use.

**Launch the Maine Seafood Business Council by 2022.**

- The EDA-funded SEA Maine (SeaMaine - Seafood Economic Accelerator for Maine) market development committee is conducting a Strengths, Opportunities, Aspirations, and Results analysis based on existing and anticipated market studies to sustain and grow the marine economy, and look for opportunities to collaborate with Maine food, agriculture, and life science sectors. The subcommittee will develop a plan to increase Maine’s competitiveness and support efforts to market Maine’s seafood economy, attract investment, and connect the sector to new markets and resources.

**Clean-Energy Jobs and Businesses in Maine**

**Clean energy economy workforce initiative by 2022.**

- Maine’s Clean Energy Partnership was established to advance Maine’s clean energy, climate, economic development, and workforce goals – including the Governor’s goal of doubling Maine’s clean energy and energy efficiency jobs by 2030. Supported by \$6.5 million in the Maine Jobs and Recovery Plan, the Governor’s Energy Office has created an Advisory Board to work with leading experts to sustain attention and promote collaboration to address emerging needs, build new and expand existing supply chains, and support opportunities for Maine in these fast-growing fields.
- As of the end of 2021, there were roughly 14,500 clean energy workers across Maine and 142,000 workers employed in clean energy-related occupations. The sector saw significant job growth prior to the global pandemic; from 2016 through 2019

clean energy businesses grew their workforce by 11 percent—creating roughly 1,500 jobs in three years. The sector saw a strong post-pandemic recovery, adding 656 jobs between 2020 and 2021. Over the next decade, the state’s environmental and clean energy statutory requirements and goals will create continued demand for clean energy jobs. With clean energy workers in the state indicating high satisfaction with their careers, Maine has a significant opportunity to bridge the workforce gap by expanding outreach and raising awareness of clean energy careers among key populations.

expanded innovation in the sector, and provide relief to those businesses that have been impacted by the pandemic. These supports may include fiscal relief from pandemic impacts, funding for business planning services and technical assistance, and opportunities for mentorship.

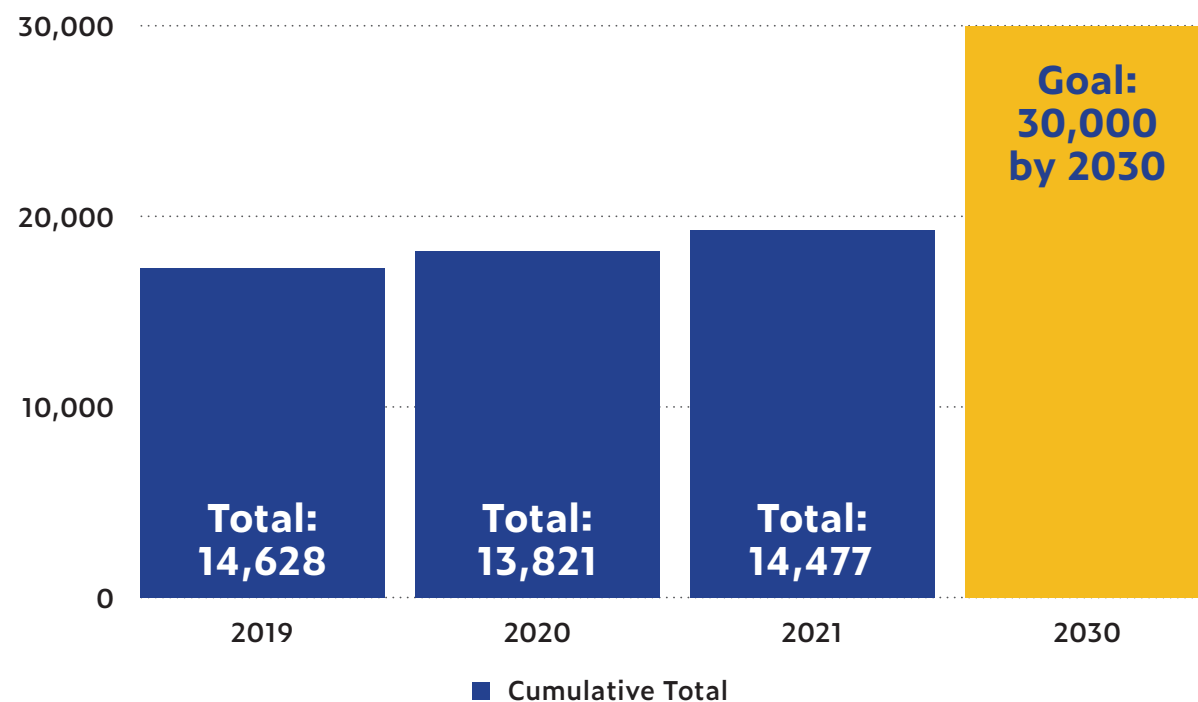
**Shovel-ready Infrastructure Projects by 2021.**

- The Maine Infrastructure Adaptation Fund awarded nearly \$20 million in funds to 13 communities around Maine to protect vital infrastructure from effects of climate change. Infrastructure Adaptation Fund recipients will use the funds for projects to address flooding along ocean and riverfronts, protect stormwater and wastewater systems, install culverts to reduce flooding; and ensure energy availability during extreme storms. (The Fund is described more fully in Strategy G.)

**Clean tech innovation support by 2022.**

- The Clean Energy Innovation Initiative, through the Clean Energy Partnership, will use \$2.25 million from the Maine Jobs and Recovery Plan to fund programs that support clean energy small businesses and startups, which will lead to

## Maine Clean Energy Jobs



## Supporting a Climate-Friendly Marine Economy

The Island Institute, a Maine-based nonprofit that works to sustain Maine’s island and coastal communities, is prioritizing the electrification of Maine’s working waterfront. By electrifying the boats, wharves, and businesses on the coast, the organization is helping to reduce greenhouse gas emissions and make Maine’s marine economy stronger and more resilient.

In addition to supporting coastal and island community renewable energy projects, the Island Institute offers grants for working waterfront energy projects that improve energy efficiency, focus on renewable energy, and/or reduce consumption of fossil fuels. Specific to electrification, the Island Institute is:

- Supporting the adoption of 20 electric boats on the water through partnerships with marine business ventures, local fishermen and women, and aquaculturists—prioritizing boats and locations with high visibility to showcase them for as many people as possible.
- Guiding marine business owners and operators through the process of switching to clean energy and off of fossil fuels.
- Identifying barriers to adoption of electric boats, such as charging infrastructure, and paths to overcoming these challenges.
- Providing grants to help fund clean energy projects (such as heat pumps and solar) for fishermen and women, for marine-based businesses, and businesses critical to sustaining our working waterfront.



## STRATEGY E

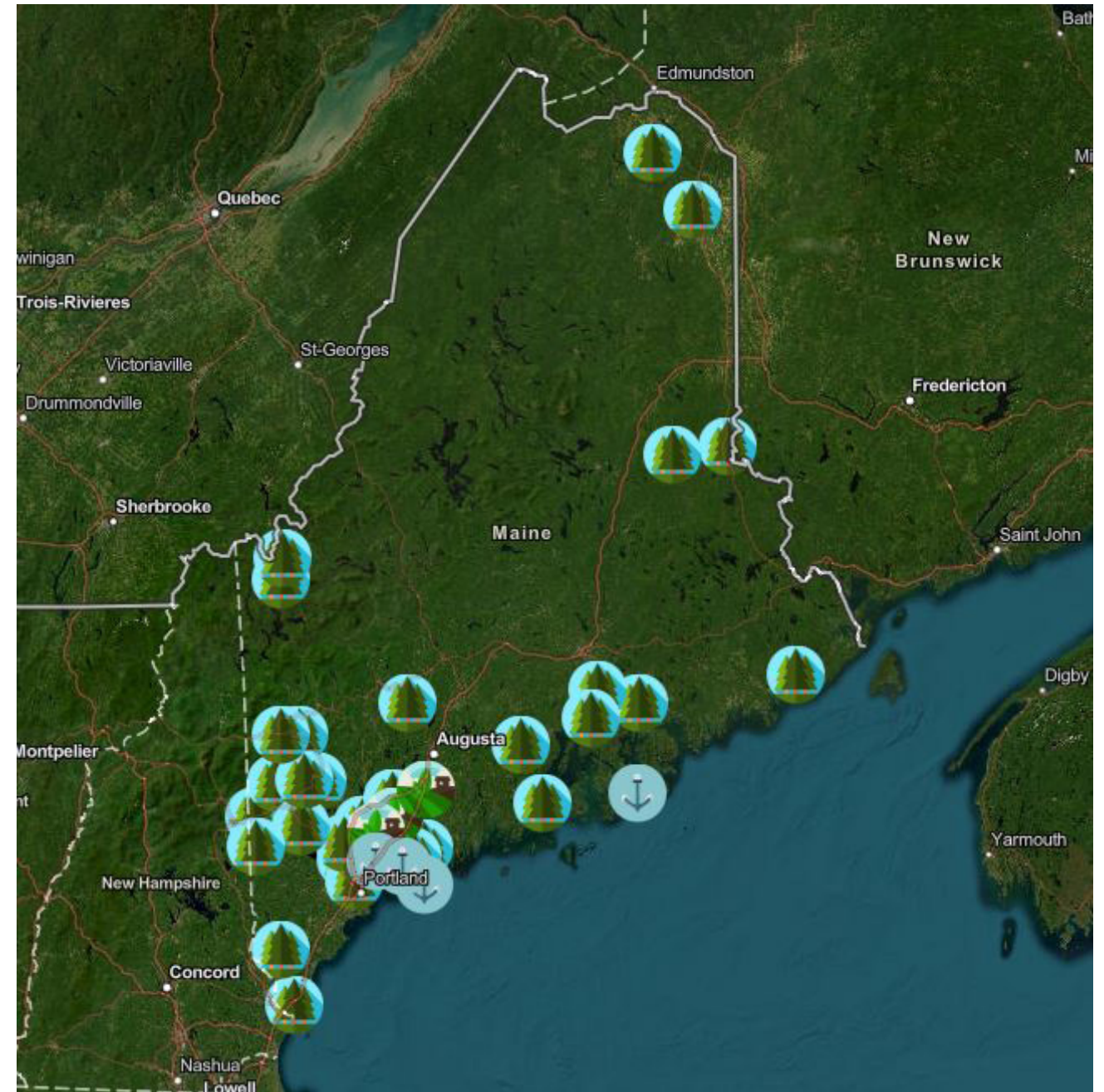
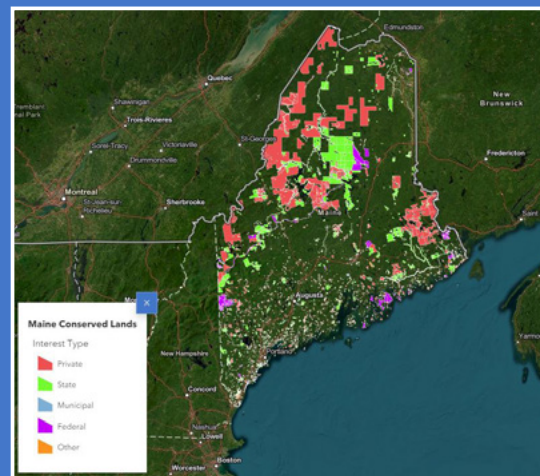
### Protect Maine’s Environment and Working Lands and Waters: Promote Natural Climate Solutions and Increase Carbon Sequestration

Climate change and development are harming Maine’s natural and working lands and waters, which are key to the state achieving its goal of carbon neutrality by 2045, signed into law by Governor Mills in 2022. Maine is nearly 90% forested, among the most forested states in the country, and there are significant opportunities for ongoing and increased carbon sequestration – including in Maine’s working forests and lands as well as ocean opportunities, also called blue carbon. Protecting Maine’s natural and working lands and waters helps store carbon while supporting our fishing, farming, forestry and outdoor recreation industries and providing important co-benefits, such as clean drinking water, important wildlife habitat, and helping to moderate severe flooding events.

### Historic Funds Awarded from Land for Maine’s Future Program

Maine’s natural and working lands and waters are key to the state achieving its carbon neutrality commitment by 2045. Maine’s conserved lands are estimated at 22% as of October 2022. To support the climate plan’s land conservation goal of 30% by 2030, the Land for Maine’s Future (LMF) program has approved 37 new projects in the last year since Governor Mills and the Legislature reinvigorated the program with \$40 million in new State funding through the biennial budget. The projects will preserve working farmland, working waterfronts, and working forests, and support recreation and nature-based learning for public schools and communities.

New LMF projects announced in 2022 total nearly \$16 million and are expected to leverage more than \$37 million in matching federal and private funds. In addition, the LMF board has recently added new Equity and Community Accessibility scoring criteria for the 2023 request for proposals (RFP). They include whether the project serves low income or otherwise disadvantaged communities, provides greenspace in areas where outdoor recreation opportunities are limited, and is accessible from neighborhoods, schools, downtowns, public transportation stops, and village centers.



Lands for Maine’s Future awarded conservation projects in 2022, including Working Waterfront (anchor icons), Conservation and Recreation (tree icons), and Farmland (green field and brown tractor) projects.

Year	Total acres conserved	New acres conserved/year	% ME land area
2020	4,224,773		21.5%
2021	4,278,314	53,541	21.7%
2022	4,336,762	58,448	22.0%

## PROGRESS UPDATE

### Protect Natural and Working Lands and Waters

#### Increase by 2030 the total acreage of conserved lands in the state to 30%.

- In 2022, the Department of Agriculture, Conservation, and Forestry (DACF) estimates that 4,336,762 acres or 22.0% of Maine's lands are conserved. Updated data in the Maine conserved lands database also allows for the upward revision of the 2020 baseline to 21.5% of Maine's lands. More than 50,000 acres of new lands were conserved annually in 2021 and 2022.

#### Develop conservation targets for Maine's forest cover, agriculture lands, and coastal areas by 2021.

- To help inform future conservation targets, the Department of Agriculture, Conservation and Forestry in close collaboration with public and private partners reviewed land conservation accomplishments since the 1997 Land Acquisition Priorities Advisory Committee (LAPAC) and identified acquisition gaps which will be used to inform to future acquisition priorities. Results from the LAPAC report are expected in early 2023.
- The Maine Bureau of Parks and Lands received a \$20,000 grant from the Maine Outdoor Heritage Fund to work with the Maine Department of Inland Fisheries and Wildlife (DIFW) and the Maine Natural Areas Program on updating conservation priorities for the state, incorporating climate change consideration.

#### Focus conservation on high biodiversity areas.

- Beginning with Habitat (BwH) collaborators including the Maine Natural Areas Program (MNAP), DIFW, and Maine Nature Conservancy recently revised the designation process for Focus Areas of Statewide Ecological Significance to better ensure integrity, transparency, and repeatability. The revised process provides consistent and

defensible methods of determining how much surrounding landscape is needed to adequately safeguard the natural features driving Focus Area designations. These methods result in Focus Area designations that incorporate a sufficient area of landscape to maintain their natural function and ecological integrity—factors that are essential for climate resilience.

- Scoring criteria for LMF applications includes biological diversity, including long-term protection of BwH designated Focus Areas of Statewide Ecological Significance.
- The Maine Department of Marine Resources (DMR) is distributing more than \$7 million in ARPA funds for stream and tidal restoration projects that improve fisheries, ecosystem function and protect public safety.
- Maine Natural Resources Conservation Program (MNRCP) awarded \$5,713,069 for 24 projects in 2021, which was the highest amount awarded since the program began in 2008. These funds were used for the restoration and enhancement of 393 acres of wetland resources and to preserve 4,373 acres of aquatic resources, significant wildlife habitat, and upland and riparian buffer. 2022 awards are expected to be announced soon.

#### Revise scoring criteria for state conservation funding to incorporate climate goals.

- State agencies have upgraded the scoring criteria for state grant programs to require applicants to improve climate resilience (such as hazard mitigation and emergency management, resilience, habitat improvement, public safety, and more) into several state conservation programs. This includes the Lands for Maine's Future Program, as required by statute, and the Maine Outdoor Heritage Fund both of which prioritize projects that address climate change

#### Develop clean energy siting guidelines by 2022.

- The Governor's Energy Office and the Department of Agriculture, Conservation and Forestry convened the Agricultural Solar Stakeholder Group in 2021 to make policy recommendations to balance the need to protect Maine's current and future farmland against the need to develop sources of renewable solar energy. The group released its report in January 2022 on the Agricultural Solar Stakeholder Group website.
- The Maine Department of Environmental Protection provided guidance on their website for solar development on closed landfills.
- Bipartisan legislation passed in 2021 established solar decommissioning requirements to ensure solar energy structures are removed from lands at end of life or when no longer in use. Decommissioning plans for solar development on farmland must provide for the restoration of that farmland sufficient to support resumption of farming or agricultural activities (P.L. 2021, ch. 151)
- Pursuant to legislation, the Governor's Energy Office convened the Distributed Generation Stakeholder Group to recommend a cost-effective successor program for distributed generation resources.

The stakeholder group hosted a land use-focused work session in October 2022, seeking feedback from a broad range of stakeholders on land use matters to incorporate into the successor program proposal due to the Legislature at the end of 2022.

### Develop New Incentives to Increase Carbon Storage

#### Inventory carbon stocks on land and in coastal areas to provide baseline estimates for state carbon sequestration by 2023.

- The Department of Environmental Protection (DEP) has released the 2022 biennial greenhouse gas emissions inventory update, which for the first time includes gross and net emissions estimates. The inventory estimates that 75% of 2016 gross greenhouse gas emissions are balanced by sequestration in Maine's environment, including forests and wood products, wetland, agriculture, urban biomass, inland and coastal waters, and soils.
- The DEP released 2021 low tide imagery and a seagrass GIS layer from Eliot to Cape Elizabeth and conducted new eelgrass mapping from Cape Elizabeth to Phippsburg during summer 2022. Seagrass and salt marsh mapping along the entire



Underwater eelgrass field verification, Casco Bay, summer 2022.



coast of Maine, funded by Governor Mills and the Legislature in the biennial state budget, will commence in 2023 from Phippsburg to St. George. Seagrass and salt marsh mapping will be repeated annually on a rotating basis along the entire coast as directed by the Legislature.

- The Coastal Blue Carbon Group, co-chaired by the Maine Department of Marine Resources, is hosting a scientific workshop reviewing new and emerging coastal “blue carbon” sequestration science in early 2023.

**Engage stakeholders to develop a voluntary, incentive-based forest carbon program for woodland owners of 10 to 10,000 acres (by 2022); Financial incentives for climate friendly land management practices; Update the Open Space Current Use Taxation Program and maintain the Tree Growth Tax Law.**

- The Governor’s Forest Carbon Task Force made recommendations to encourage forestland management practices that increase carbon storage specifically on woodland owners of 10 to 10,000 acres while maintaining harvest levels overall. The Task Force recommendations include to “Encourage, promote, and incentivize the voluntary adoption of climate-friendly forest management practices” and “Promote climate-friendly timber harvest-

ing practices and support the use of low-impact harvesting equipment”. The recommendations also include to “Identify a suite of potential changes to the Open Space Current Use Taxation program that integrate carbon management elements into the program.”

**Engage in regional discussions about multi-state carbon programs.**

- Maine leaders continue to participate in early regional multi-state discussions about shared goals and policies related to carbon sequestration and potential future program opportunities.

**Expand Outreach to Offer Information and Technical Assistance**

**Increase technical service provider capacity to deliver data, expert guidance, and support for climate solutions to communities, farmers, loggers, and foresters by 2024.**

- The Department of Agriculture, Conservation and Forestry (DACF) has recently hired a Soil Scientist to develop, manage, and direct the Department’s new Healthy Soils Program, created by statute in 2021. The position is a key resource for leading climate-smart agricultural practice education, training, and information exchange to staff,

relevant state agencies, resource partners, and constituents ranging from agricultural producers to the general public.

- DACF will hire a forest resource management planner specializing in carbon and 3 new foresters by early 2023 to provide training and education to landowners and promote forest management practices that support adaptation and resiliency; the positions are funded in the state biennial budget.
- DACF’s Bureau of Resource Information and Land Use Planning (BRILUP) is hiring a senior planner to provide inter-program, inter-Bureau, and inter-Departmental coordination and support toward implementing State climate strategies that support regional and community actions.
- DACF, DIFW, and the University of Maine completed a Soil Carbon Incentives Study which provides a summary of relevant scientific literature on soil carbon management practices for agriculture, forestry, and wetlands. The report provides recommendations to the Legislature to provide additional assistance to landowners to maintain and enhance soil carbon.
- DIFW has recently hired a Climate Coordinator within the Beginning with Habitat (BwH) program, to coordinate agency efforts related to the impacts of climate change on Maine’s fisheries, wildlife, and habitats. This position increases the Department’s capacity to provide technical assistance to state and local governments and conservation partners, as well as representing the agency on climate-related technical, scientific, and stakeholder groups.
- DIFW has also developed an automated forest management plan review tool, housed within the BwH group. The new tool allows reviewers from DACF and DIFW to review forest management plans more efficiently and effectively for priority natural resources and landscape features. The new process will improve agency response time to landowners and enhance the scope of voluntary management suggestions offered.

- DMR will soon hire two habitat restoration coordinators to oversee new spending for stream connectivity and coastal habitat restoration.

**Launch the Coastal and Marine Information Exchange (by 2024)**

- See below.

**Enhance Monitoring and Data Collection to Guide Decisions**

**Establish a “coordinating hub” for key climate change research and monitoring by 2024.**

**Create the framework and begin pilot for a coordinated, comprehensive monitoring system by 2024.**

- The new Maine Climate Science Information Exchange at the University of Maine (MCSIE) focuses on marine ecosystems and coastal communities as one of its three primary areas of specialization. MCSIE is developing a database of current climate science research in and about Maine serving as a boundary spanning entity engaging scientist, policy maker, and manager stakeholders to bring science to decision-making in real time and identify information needs.
- Maine DEP and DMR are participating in an ocean climate collaborative with academic and non-profit partners to coordinate and improve Maine-focused coastal and ocean acidification monitoring relevant to meeting the goals of *Maine Won’t Wait*.
- DMR has established a new Division of Ecology and Environment in its Bureau of Marine Science, which emphasizes scientific research and environmental monitoring to support fisheries. DMR’s Bureau of Public Health has increased harmful algal bloom monitoring, initiated a vibrio monitoring program, and initiated intertidal sentinel monitoring sites to assess long-term changes and provide early warning to presence of new invasive species or habitat shifts.
- DMR invested over \$14 million from the Maine Jobs and Recovery Plan to support research and policy initiatives related to lobster fishery monitoring, addressing gaps in the understanding of the



presence of North Atlantic right whales in the Gulf of Maine, and other industry trends. To ensure long-term environmental and economic sustainability of Maine’s ocean fisheries and coastal habitats the Department is launching a Fisheries Connectivity and Habitat Restoration Program to fund more fish and coastal habitat revitalization projects.

- DMR will also expand public health testing capacity for shellfish to support growth of Maine’s aquaculture and wild harvest sectors and invest in Maine Marine Patrol equipment upgrades and facility repairs to better serve and protect Mainers who make their living from the sea.

- DMR and its partners completed its annual monitoring of salt marsh “sentinel sites”, measuring the health of marshes and their ability to build sediment to keep up with sea level rise.

**Incorporate climate research and climate change-related technologies into Maine’s research and development priorities.**

- In 2021, two Maine companies earned \$250,000 awards through the first “Maine Clean Energy Innovation Challenge” through the Maine Technology Institute.

## Maine Climate Science Information Exchange

The University of Maine has launched the Maine Climate Science and Information Exchange (MCSIE) to coordinate climate science in support of *Maine Won’t Wait*, with federal funding secured by Maine’s congressional delegation and additional private funding. MCSIE is an office of climate science information coordination based at the University of Maine in service to all of Maine.

MCSIE has three primary areas of specialization: marine ecosystems and coastal communities, agriculture and food systems, and forests and forest products.

MCSIE is developing a database of current climate science research in and about Maine and will engage with stakeholders to strengthen the linkage between the most recent science and decision-making while identifying information needs to inform policy and research development. MCSIE serves as a boundary spanning entity, linking scientists, managers, and policymakers. MCSIE encompasses the development of a database of current climate science research in and about Maine, and specialists who engage in networking stakeholders, building teams, and identifying information needs.

MCSIE will strengthen Maine’s ongoing science knowledge base supporting the work of the Maine Climate Council, working groups, subcommittees, and those throughout Maine engaging in an informed and cost-effective climate response. MCSIE will also include professional development opportunities for graduate and undergraduate students to engage in this work. A pilot MCSIE program began in 2022 with private funding. Beginning in 2023, MCSIE will be supported by a two-year National Oceanographic and Atmospheric Administration (NOAA) \$1M grant. The funding will allow MCSIE to hire additional staff, continue building a database of ongoing climate research, establish stakeholder networks around priority areas in *Maine Won’t Wait*, and begin the development of a framework for climate science data and monitoring coordination based in the Maine Climate Office at the University of Maine.



THE UNIVERSITY OF  
MAINE



## STRATEGY F

### Build Healthy and Resilient Communities

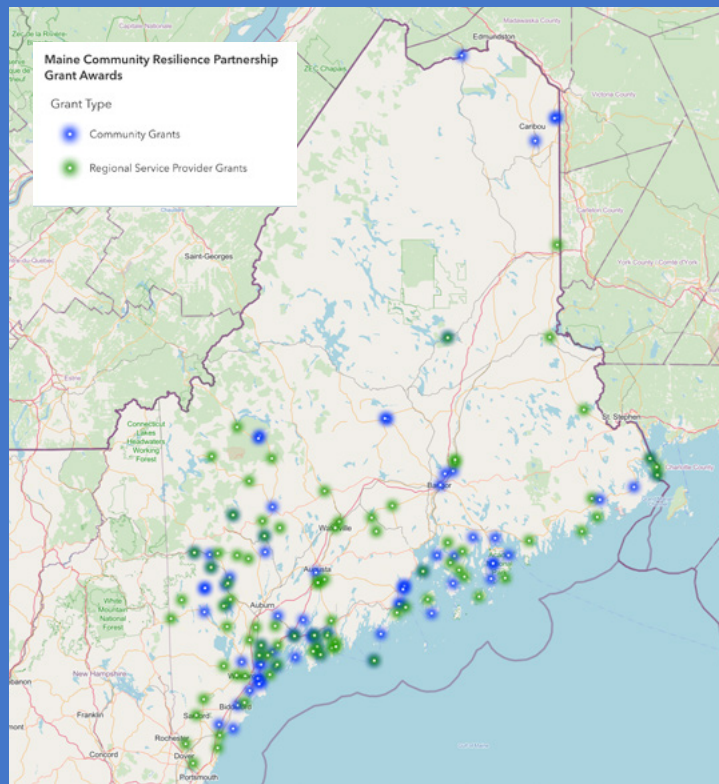
As Maine works to reduce our greenhouse gas emissions, we must also prepare for climate change impacts that the state is already experiencing, including increased storm events, inland and coastal flooding, and extreme heat. Maine communities are leading the way in understanding, planning and acting to reduce their risk from climate change. The State must continue to increase the coordination of assistance and funding for community resilience, and ensure that the most vulnerable communities can participate.

### Support for Local Climate, Clean Energy Planning

The new Community Resilience Partnership is working to help Maine communities reduce emissions and prepare for the effects of climate change.

Through grants and direct support to municipal and tribal governments and unorganized territories, the Community Resilience Partnership assists communities to reduce carbon emissions, transition to clean energy, and become more resilient to climate change effects such as extreme weather, flooding, rising sea levels, public health impacts, and more.

127 communities in Maine are currently participating in the Partnership. This includes 76 enrolled communities who are eligible to apply for grants, representing 34% of people in Maine. Another 51 communities are currently working with service providers to enroll in the program.



## PROGRESS UPDATE

### Empower Local and Regional Community Resilience Efforts

Provide state leadership for robust technical assistance and funding to communities by 2024.

- In December 2021, the new Community Resilience Partnership launched with \$4.75 million from the biennial budget. The Partnership delivers local and regional planning grants for communities to prepare for climate change effects, reduce carbon emissions, and transition to renewable energy.
- The Department of Marine Resources awarded over \$200,000 through the FY23 Shore and Harbor Planning Grant after a competitive review process that included climate consideration. These awards, funded by the Maine Coastal Program and National Oceanic and Atmospheric Administration (NOAA), provide coastal towns and regional planning organizations with funds for harbor management plans, documenting and increasing public access to the shore, designing and updating water access facilities, and waterfront resiliency planning.
- The Department of Agriculture, Conservation, and Forestry coordinated the award of \$116,000 in federal NOAA funding under the Coastal Community Grant program with the second round of Community Resilience Partnership funding. This coordination allowed several municipalities and regional planning organizations to leverage state and federal dollars for resilience efforts in water quality monitoring, coastal flood resilience, working waterfront infrastructure, and urban land management.
- The Governor's Infrastructure Implementation Committee was established to coordinate efforts around the federal Bipartisan Infrastructure Law (BIL) and ensure that Maine receives the maximum benefit from this significant federal funding opportunity, advancing the state's transportation, climate, and economic plans, and accomplishing once-in-a-generation projects for Maine. The committee includes a Resilience Working Group

to support the state and communities to successfully compete nationally for BIL funds related to natural resources and climate resilience.

### Adopt Official Sea-Level Rise Projections

Incorporate official state sea-level rise projections into regulations by 2022.

- LD 1572, Resolve, To Analyze the Impact of Sea Level Rise, was signed by Governor Mills in June 2021. Public Law 2021, ch. 590 – An Act to Implement Agency Recommendations Related to Sea Level Rise and Climate Resilience, revised municipal planning definitions to clarify the definition of a climate action plan and its inclusion in other municipal planning efforts; it also adds a requirement that the award of financial assistance is prioritized in communities who prepare climate vulnerability assessments and adopt climate action plans. P.L. 2021, ch. 590 also added requirements to consider the effect of at least 1.5 feet of relative sea level rise by 2050 and 4 feet of relative sea level rise by 2100 when evaluating harmonious fit of a project under the Site Location of Development Act, within the service area of the Land Use Planning Commission, and the Maine Hazardous Waste, Septage and Solid Waste Management Act.
- The Maine Department of Transportation (MaineDOT), acting on behalf of the State of Maine, was awarded a \$1 million grant from the US Department of Commerce, to develop a high-resolution, dynamic, and probabilistic model of flood risk along the Maine coast from storm events and projected sea level rise – the Maine Coastal Flood Risk Model (ME-CFRM). The model will take advantage of a new NOAA LiDAR dataset that will provide consistent, high-quality topographic and bathymetric data covering nearly the entire coast of Maine. The LiDAR data is currently being collected and is scheduled to be released by NOAA starting in mid-2023. Preliminary ME-CFRM output is expected to be available beginning in the spring of 2024, with final model results ready to be shared with the public by the fall of 2025.

### Emphasize Resilience Through Land-Use Planning and Legal Tools

Develop and implement updated land-use regulations, laws, and practices to enhance community resilience to flooding and other climate impacts by 2024.

- In 2022, the Maine Department of Environmental Protection (DEP) incorporated climate resilience to several land use regulations and guidance for infrastructure located on the coast, including a proposed permit-by-rule for sand dune construction and beach nourishment activities, to facilitate planting of native dune vegetation; a permit-by-rule to allow for limited minor expansions on existing developed area in the sand dune system, an activity that was previously exempt by statute; revisions for Marine Oil Terminals to manage for larger storm events and plan for coastal flooding and sea level rise; and guidance for limited allowance of sheet pile installations in coastal sand dunes to protect existing wastewater utility facilities.
- LD 1809, An Act to Allow Exceptions to the Height Limitation under the Shoreland Zoning Laws allows certain structures in flood-prone areas to be elevated to meet municipal floodplain management ordinances and still conform with Shoreland Zoning height restrictions, was signed into law by Governor Mills.

- DACF supported the Southern Maine Planning and Development Commission in completing a model ordinance for coastal resilience, low-impact development, and erosion and sedimentation control. Further financial support from DACF will allow SMPDC (and other regional planning organizations) to help municipalities to adapt and adopt these models based on their needs, conditions, and priorities. This program is supported in part by the Maine Coastal Program at ME DMR.

### Strengthen Public-Health Monitoring, Education, and Prevention

Develop and implement more robust public-health monitoring, education, and prevention practices by 2024.

- The Maine Center for Disease Control & Prevention (Maine CDC) publishes near real-time data on the Maine Tracking Network describing daily and weekly counts of heat- and cold-related illnesses at the state and county levels, and worked with the State Climatologist to display weather data matched to the same time and geographic units as the available health data. Maine CDC also works closely with DEP's Bureau of Air Quality to promote and display their air quality data for ozone and particulate matter on the Maine Tracking Network and communicates extensively with

## York Steps Up to Climate Risks with an Aggressive Action Plan

The Town of York is stepping up to the significant risks posed by climate change to its miles of coastline, economy and abundant natural areas with an aggressive, comprehensive climate action plan.

Building from goals to cut greenhouse gas emissions by 50% by 2030 and achieve 100% carbon neutrality by 2050, the robust plan is the result of a collaboration of volunteers, consultant groups, civic organizations, Town staff and public feedback. York's climate action roadmap directly supports many Maine Won't Wait plan strategies.

We asked Gerry Runte, chair of the York Climate Action Plan Steering Committee, to explain how the CAP came together – and for tips for other towns creating climate action plans. You can read all about it at [MaineWontWait.org](https://MaineWontWait.org).



DEP BAQ during the summer to ensure streamlined and consistent messaging when extreme heat events overlap with periods of poor air quality.

- Maine CDC is partnering with DEP to develop and implement a pollen monitoring network across the state. This effort will include the siting and operation of at least four pollen monitoring sites around the state, and the concurrent engagement of a pollen monitoring network advisory group to provide input on questions of monitor location, data management and dissemination, and potentially impacted populations.

- Maine CDC is partnering with the Maine Emergency Management Agency (MEMA) and County Emergency Management Agencies – Sagadahoc and Piscataquis to date – to create county-specific Extreme Temperature Response Plans. These plans will be informed by robust engagement of local stakeholders, and will lay out each county’s planned response to an extreme heat or cold event, in the context of the county’s larger all-hazards response planning efforts. Maine CDC is also developing an Extreme Temperature Resilience Guidebook and communications campaign for community leaders, town and municipal officials, and affected individuals to respond to extreme temperature events.

## Limestone and the Maine School of Science and Mathematics

The Town of Limestone received a \$50,000 Community Action Grant from the Community Resilience Partnership to help purchase a pair of existing solar arrays located at the former Loring Air Force Base. The town has partnered with the Maine School of Science and Mathematics (MSSM) to reduce their electricity bills by 95% with energy from the arrays. Together the town and the school plan to use the savings to pay off the purchase price of the arrays in approximately seven years, after which they will enjoy the electricity from the solar panels at no cost.

Volunteers from the town of 2,200 residents and students from MSSM and Northern Maine Community College have helped with site maintenance as well as repairs and

upgrades to the solar systems. High school students are utilizing a data feed from the panels to monitor solar energy production at the sites and verify the school’s energy savings.

This is not the town’s first venture into solar energy. The Limestone Water and Sewer District built a solar array in 2018 on undevelopable well-head land area to offsets energy usage at the Limestone wastewater treatment facility. The wastewater project’s success convinced Limestone residents to authorize the town to purchase the Loring solar arrays and increase the town’s savings from going solar.



Limestone Solar Committee Chair Chuck Kelley explains to GOPIF staff the improvements to a newly purchased solar array that will power the town office and Maine School of Science and Mathematics. (Photo credit: Ryan McDonald, MSSM)



## STRATEGY G

### Invest in Climate-Ready Infrastructure

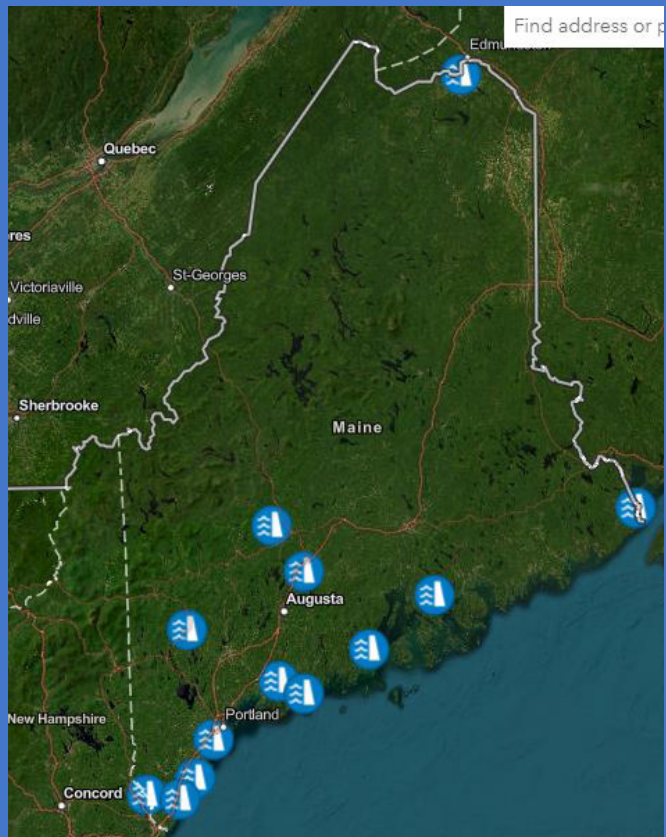
Maine’s infrastructure is already being impacted by climate change. New funding opportunities from the federal Bipartisan Infrastructure Law (BIL) to support resilient infrastructure include programs to strengthen the state’s preparedness for storm events, flooding, and wildfires; to build resilience of transportation networks, drinking water and wastewater systems; to mitigate contaminants and pollution; and to improve natural capacity of watersheds and ecosystems. It is critical that the state ensures that all Maine communities are able to access and benefit from these and other resources to support climate-ready infrastructure.

### Infrastructure Funding To Support Climate Resilience

The Maine Infrastructure Adaptation Fund proposed by *Maine Won't Wait* this year awarded nearly \$20 million in funds to 13 communities around Maine to protect vital infrastructure from effects of climate change.

The grants were awarded by the Maine Department of Transportation (Maine DOT) through the Maine Infrastructure Adaptation Fund. The Fund, first announced by Governor Mills in December 2021, was a recommendation of the state’s climate action plan, *Maine Won't Wait*, to support community efforts to build climate resilience in Maine.

Infrastructure Adaptation Fund recipients will use the funds for projects to address flooding along ocean and riverfronts, protect stormwater and wastewater systems, install culverts to reduce flooding, and ensure energy availability during extreme storms.



## PROGRESS UPDATE

### Assess Climate Vulnerability and Provide Climate-Ready Design Guidance

Complete a statewide infrastructure vulnerability assessment; develop and implement design standards for resilience in infrastructure projects by 2023.

- The Maine Department of Transportation (MaineDOT) received a \$1 million grant from the US Economic Development Administration to develop a hydrodynamic sea level rise model, with preliminary results expected in spring 2024 (see Strategy F updates for more details).
- The Maine Emergency Management Agency is currently updating the state's Hazard Mitigation Plan, which allows the state to be eligible for FEMA Hazard Mitigation Assistance grants, guides state and federal stakeholders to assess, prepare for and address the risks, vulnerabilities, and capacities associated with mitigating natural hazards, and positions the state's counties and towns for mitigation plans, projects and grants. The updated plan will include an array of climate hazards such as flooding (both coastal and riverine), drought, wildfire, severe summer and winter weather, air quality, and algae blooms. The plan will be approved by FEMA in 2023.
- Maine Department of Environmental Protection (DEP) has developed a map of vulnerable facilities to flood risk, including oil storage, waste and contaminated sites.
- The Maine Silver Jackets inter-agency team of several State and Federal agencies completed dynamic coastal flood inundation maps for three communities in Maine in 2022.
- Maine Department of Marine Resources (DMR) is assisting ten coastal municipalities in its Shore and Harbor Planning Grant Program to map their waterfront facilities and access points, create vulnerability assessments, develop engineering solutions and plan for new investment.

### State Infrastructure Adaptation Fund & Predevelopment Assistance

Launch a State Infrastructure Adaptation Fund and predevelopment assistance program by 2022.

- MaineDOT has established the Infrastructure Adaptation Fund with \$20 million from the Maine Jobs & Recovery Plan to support adaptation and resilience of state and local infrastructure vulnerable to climate change. In 2022, the fund awarded nearly \$20 million in funds to 13 communities around Maine to protect vital infrastructure from effects of climate change.
- The Maine Jobs & Recovery Plan included \$50 million in wastewater and drinking water programs. Significant additional drinking and wastewater program funding is anticipated through the Bipartisan Infrastructure Law (BIL). Through its Drinking Water Program, the Maine CDC will expand efforts to address imminent risks to public health through investments in the safety of public water infrastructure – such as water treatment plants, storage reservoirs, and pipe distribution systems. Among other benefits, these investments will enable communities to mitigate lead in drinking water at schools and child-care centers and address harmful effects of perfluoroalkyl and polyfluoroalkyl (PFAS) substances, known as “forever chemicals.”
- In 2022, Maine DEP offered \$140,899,401 in funds from the Maine Jobs & Recovery Plan, the BIL and potential revenue bonds via the Maine Municipal Bond Bank blended with the Clean Water State Revolving Fund (CWSRF), for repairs, upgrades, asset management and climate planning for Maine's wastewater infrastructure. Through the BIL, and potential revenue bonds via the Maine Municipal Bond Bank blended with the CWSRF, Maine DEP expects to offer a similar amount in 2023.
- Maine DEP is administering \$3 million in grants from the Maine Jobs & Recovery Plan in 2022 to assist municipalities with stream crossing upgrades and replacements. Funds will expand

the Municipal Stream Crossing Grant Program, which provides local governments and organizations competitive grants up to \$150,000 towards the upgrade of undersized and failing culvert stream crossings on municipal roads. The projects awarded provide public infrastructure benefits by replacing culverts that are currently failing and at risk of complete washout, opening or improving fish passage, eliminating undersized and other impassable culverts and reducing ongoing erosion impact to streams, brooks, and lakes. Additional culvert, resilience, wildlife, emergency management program funding is available through a variety of federal agencies through BIL.

- With \$50 million in funding from the Maine Jobs & Recovery Plan, Maine's Department of Agriculture, Conservation & Forestry will undertake urgent capital infrastructure improvements at State Parks. These investments will help address major safety and stewardship concerns, enable the parks to accommodate continued growth in visitation, and bolster the recovery of Maine's vital tourism and outdoor recreation sectors.

### Climate-Ready Stormwater Upgrades in Winslow

Winslow is a town of approximately 7600 residents located at the confluence of the Sebasticook and Kennebec Rivers. Over the last 2 decades the town has experienced heavier precipitation and more frequent flooding events. The stormwater system in Winslow is 50 to 100+ years old and the Cushman Road drainage system has reached the end of its useful life. The stormwater system has been frequently overwhelmed, resulting in flooding of lower levels of



homes and businesses and impassible roadways, as well as threatening the water quality and aquatic life in the Kennebec River. The two primary areas of concern (Robert Street and China Road) are both densely populated, and flooding events have caused property damage and safety concerns for both local residents and the traveling public. Flooding events can also cause sediments and pollutants, including sewage, to discharge into the rivers.

The town was awarded over \$2.7 million in funds from the Maine Infrastructure Adaptation Fund to mitigate the current flooding and increase the capacity of the storm system to handle the anticipated increased precipitation. Dirigo Engineering is presently gearing up to start final design with the intention of getting the project to bid late winter or early spring for 2023 construction.

While most people in Central Maine are familiar with the Flood of 1987, they may not be aware of the multiple smaller floods that have threatened the properties that surround the intersection of Rts. 201 and 137 (China Rd and Augusta Rd) in Winslow. Winslow residents and business owners are all too familiar with these events. Two such events have occurred in the last 4 years with significant flooding experienced by the businesses surrounding that intersection. Flooding occurs to a lesser extent with water covering parking lots and the roadway whenever rainfall exceeds the 2 inch-per hour mark.



## STRATEGY H

### Engage with Maine People and Communities about Climate Impacts and Program Opportunities

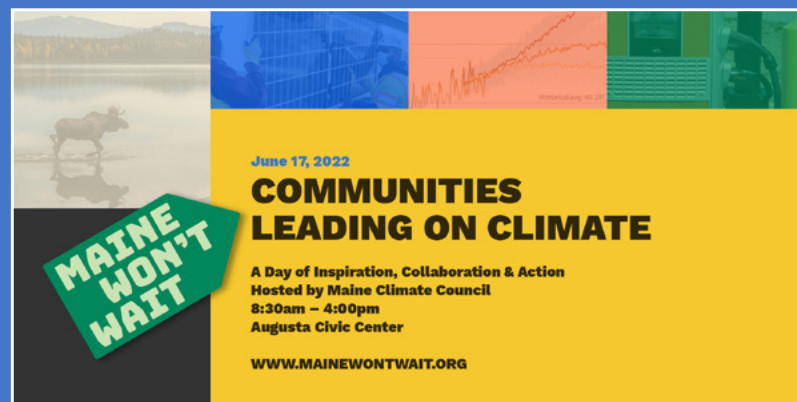
Since the release of *Maine Won't Wait*, communities and people across Maine have led the way on climate action, taking steps to reduce greenhouse gas emissions and increase their resilience to climate impacts. Effective communications about Maine's climate strategies, including about state climate programs and funding opportunities, will help make sure all people and communities in Maine—especially our most vulnerable—are able to take climate action.

#### Communities Leading on Climate Conference

Towns, cities, and tribal governments across the state are taking strong steps to address the effects of climate change in their communities. In June 2022, the Maine Climate Council hosted more than 500 attendees (in-person and virtual) at the Communities Leading on Climate conference to learn from leaders across the state how to advance climate actions in their community.

The conference featured White House National Climate Advisor Gina McCarthy, Governor Janet Mills, and remarks from Senator Angus King, Representative Chellie Pingree, and representatives of Senator Collins and Representative Golden. To highlight community leadership on climate action, the conference featured speakers from Rockland, Biddeford, Lewiston, Limestone, Portland, Belfast, York, Norway, the Penobscot Nation, Brooklin, Dover-Foxcroft, South Portland, Eastport, and more. Workshops covered everything from climate adaptation planning resources, state and federal funding, to a hands-on demonstration from WindowDressers about building energy-saving window inserts.

The conference was part of an overall communications strategy on behalf of the Maine Climate Council to help Maine people, communities, and businesses take climate action.



## PROGRESS UPDATE

### Raise Awareness About Climate-Change Impacts and Opportunities

Launch a multifaceted, ongoing communications effort by 2021.

- In December 2021, the Maine Climate Council launched an awareness campaign to promote *Maine Won't Wait* and actions that Maine people, communities, and businesses can take. The campaign includes a new website at [MaineWontWait.org](http://MaineWontWait.org), featuring Maine stories, videos, and other resources to inspire and support climate action.

### Increase Public Education Offerings Related to Climate and Energy

Develop enhanced educational opportunities for climate science and clean energy careers in Maine public schools; Launch a process to engage key stakeholders in next steps by 2021.

- With \$2 million in funding from the biennial budget, the Maine Department of Education (DOE) is developing the pilot grant program for climate education established in LD 1902 Resolve, To Establish a Pilot Program To Encourage Climate Education in Maine Public Schools.
- DOE launched interdisciplinary, project-based PreK-12 climate science modules in early 2022 on the Maine Online Opportunities for Sustained Education (MOOSE) platform. They include Data Literacy: Collecting, understanding, and using data related to climate; Systems & Connections: The interconnected influences of all elements and individuals on climate and climate on those elements and individuals; and Communication: Combining data literacy with systems and connections to effectively convey and interpret ideas about climate.



White House National Climate Advisor Gina McCarthy addresses attendees at the Maine Climate Council's Communities Leading on Climate conference in June 2022

- Two DOE programs support outdoor learning related to understanding climate change. The Reinventing Responsive Education Ventures (RREV), a \$16.9 million federal grant which supports innovative approaches to education, has provided over \$4 million in funding for innovative pilots in outdoor and nature-based education, and prioritizes funding for economically disadvantaged districts. The Maine Outdoor Learning Initiative, which launched this summer, similarly prioritizes economically disadvantaged students from rural, inland communities with little or no access to coastal opportunities based on socioeconomic status and geographic location. The Maine Outdoor Learning Initiative has awarded nearly \$1 million in grants so far and plans to release a second round of funding in 2023.

### Start the “Maine Climate Corps” for Climate-Related Workforce Development

#### Launch a Maine Climate Corps program by 2023.

- As required by Per LD 722, Volunteer Maine delivered a plan for Maine Climate Corps to Environment and Natural Resources Committee of the Maine Legislature in early 2022.
- LD 1974: An Act To Establish and Fund the Maine Climate Corps Program Pursuant to Recommendations in the Report Required by Resolve 2021,

Chapter 25, established the Maine Climate Corps at Volunteer Maine and funded a Climate Corps Pilot focused on Energy Efficiency & Conservation, with a one-time investment of \$201,310 (\$120,000 for Corps members and \$81,310 for the Corps Members’ supervisor/trainer). Additionally, LD 1974 funded one Maine Service Fellow position focused on Climate, at \$30,000 for one year of service. The Maine Commission for Community Service used ARPA funding allocated by the AmeriCorps agency to hire a temporary Climate Corps Coordinator.

- The Maine Service Fellows Program was established under LD 1010.

### Recognize Climate Leadership by Maine Businesses and Organizations

#### Launch the Governor’s Climate Leadership Council by 2021.

- In September 2022, Governor Janet Mills and the Department of Economic and Community Development announced new “Climate Leader” Award as part of the annual Governor’s Award for Business Excellence. Announcement of the award is expected by 2023. Further engagement with Maine businesses and nonprofit organizations about climate leadership and achieving goals of *Maine Won’t Wait* is anticipated for 2023.

## Climate Workshop Resonates with Mt. Blue High School Students

Mt. Blue High School Earth science teacher Dr. Patricia Millette asked students which science topics concerned them at the end of the 2020–21 school year. Climate change surfaced as a top response. The discovery of student anxiety over climate change served as a catalyst for Dr.

Millette to plan the school’s first climate workshop, recruiting speakers from Maine’s legislature, farming, business, youth and climate science communities around themes designed to educate and empower students.

The thorough planning paid off. Speakers reported eyes glued to their presentations, lots of raised hands and thoughtful questions. Students and parents continue to share positive feedback, including one student who expressed gratitude for being trusted with facts and not being preached to.

Dr. Millette describes how she planned the workshop agenda and shares lessons learned along the way at [MaineWontWait.org](https://MaineWontWait.org).





# FUNDING FOR MAINE'S CLIMATE AND ENERGY PRIORITIES

## Once-in-a-generation investment opportunities

Recent federal legislation has created unprecedented funding opportunities to achieve the goals in *Maine Won't Wait*. While this historic funding has supported bold action and delivered climate and energy projects around the state, there remains significant work ahead given the scale of the challenge presented by climate change.

### Maine Jobs and Recovery Plan

The Maine Jobs & Recovery Plan is Governor Mills' plan, approved by the Legislature, to invest nearly \$1 billion in federal American Rescue Plan funds to improve the lives of Maine people and families, help businesses, create good-paying jobs, and build an economy poised for future prosperity. The Jobs Plan includes significant investments in broadband, transportation, energy efficiency, and Maine's heritage industries, consistent with recommendations of *Maine Won't Wait*. These include:

- Establish the Maine Connectivity Authority to Achieve Universally Available Broadband: \$150 million
- Launch a Workforce Transportation Pilot to connect workers and employers in rural areas: \$5 million
- Expand Municipal and Public EV Charging: \$8 million
- Save Money Through Energy Efficiency especially for low and moderate income Mainers and schools, businesses, and community buildings: \$50 million
- Build More Affordable, Energy Efficient Housing for Maine's Workforce: \$50 million
- Invest in Heritage Industries – farming, fishing, and forest products: \$50 million
- Create Clean Energy Partnerships to support clean energy and energy efficiency job growth: \$8 million

- Ensure The Safety of Drinking Water: \$25 million
- Repair Wastewater Infrastructure: \$25 million
- Protect Infrastructure from Climate Change: \$20 million
- Upgrade municipal culverts at stream crossings: \$3 million

Since the Jobs Plan took effect in October 2021, the Mills Administration has delivered direct economic relief to nearly 1,000 Maine small businesses, supported more than 100 infrastructure projects around the state to create jobs and revitalize communities, and invested in workforce programs estimated to offer apprenticeship, career and education advancement, and job training opportunities to 22,000 Maine people.

### Bipartisan Infrastructure Law

On November 15, 2021, President Biden signed into law the historic Infrastructure Investment and Jobs Act (IIJA) which has subsequently been referred to as the Bipartisan Infrastructure Law (BIL).

All members of Maine's bipartisan Congressional delegation supported the legislation and touted the benefits of BIL's significant investments in long-standing infrastructure challenges for Maine's communities and economy. The White House described the legislation as "a once-in-a-generation investment in our nation's infrastructure and competitiveness...this Bipartisan Infrastructure Law will rebuild America's roads, bridges and rails, expand access to clean drinking water, ensure every American has access to high-speed internet, tackle the climate crisis, advance environmental justice, and invest in communities that have too often been left behind."

Maine is pursuing significant funding opportunities that align with state goals including those set forth in

Maine's four-year Climate Action Plan *Maine Won't Wait*. BIL is estimated to deliver nearly \$2.5 billion to Maine in the next five years, in the following areas:

**Transportation:** Programs to expand the interconnection and economic viability of Maine communities through improved roads, bridges, transit, and efficiency, and investments in clean electrified transportation systems.

**Resilience and environmental protection:** Programs to strengthen the state's preparedness for storm events, flooding, and wildfires; to build resilience of transportation networks, drinking water and wastewater systems; to mitigate contaminants and pollution; and to improve natural capacity of watersheds and ecosystems.

**Energy Programs & Building Efficiency:** Programs supporting improved energy efficiency in buildings and the expansion of affordable, clean energy generation and transmission networks.

**Broadband & Technology:** Programs to expand the interconnection and economic viability of Maine communities through improved, robust, affordable and universally available high-speed internet (broadband) and secure information systems.

To date, the landmark federal infrastructure law has delivered more than \$966 million in to support 80 projects across the state, both through direct funding and through grants earned by state agencies and others. A website – [maine.gov/bil](http://maine.gov/bil) – is now available to track BIL projects and investments in Maine and help connect communities and other entities to potential investment opportunities available through BIL. Governor Mills signed an executive order in April directing her Administration to mobilize a cross-agency effort to coordinate BIL implementation among the State, cities, towns, tribal governments, and other entities in Maine. This coordination is led by the Governor's Office and the Governor's Office of Policy Innovation and the Future through a new Infrastructure Implementation Committee and the Resilience Working Group.

## Inflation Reduction Act

The federal Inflation Reduction Act (IRA) includes \$370 billion for climate and energy spending with the aim of reducing US greenhouse gas emissions by 40% by 2030.

The IRA will deliver transformational climate and clean energy opportunities for Maine, supporting our climate, energy and economic plans with opportunities for businesses, consumers, and communities with significant support for tax incentives, funding, innovation opportunities, financing, and more. There are significant job growth opportunities in Maine and across the country based on IRA investment opportunities.

## Other Funding Sources

These transformative federal funding opportunities build on significant climate and energy investments in the most recent state biennial budget, which include:

- \$40 million for land conservation, which contributes to Maine's fight against the climate change by maximizing carbon storage, supporting working farms and forests, and ensuring valuable ecosystems remain in place for future generations;
- \$4.75 million for local and regional planning grants to prepare for climate change effects, reduce carbon emissions, and transition to renewable energy;
- \$3.1 million for studies, research, and staff to support power sector transformation, grid modernization and offshore wind;
- \$300,000 for eelgrass mapping; \$200,000 for hydrofluorocarbon, sea level rise, and appliance standards rulemaking; and \$400,000 for forest carbon mapping to the Department of Environmental Protection.

## CLIMATE COUNCIL MEETINGS

The Climate Council and its working groups and subcommittees continue to meet to monitor progress on climate action plan implementation. The Climate Council meets quarterly, and the working groups and subcommittees are required to meet at least two times per year. All meetings are open to the public and are published on the Climate Council website: [maine.gov/future/initiatives/climate/climate-council](http://maine.gov/future/initiatives/climate/climate-council).

The new Equity Subcommittee of the Maine Climate Council is tasked with setting equity outcomes for climate actions, monitoring progress and making recommendations to the Council to ensure programs and benefits reach diverse and isolated populations and communities.

In early 2022, the Equity Subcommittee delivered initial draft recommendations to the Maine Climate Council to ensure that all people in Maine benefit from the state's actions to reduce the harms of climate change. Over the past year, the Equity Subcommittee has continued to work with state agencies and the Climate Council Working Groups to refine the initial draft recommendations, understand equity actions already underway, and develop proposed metrics for measuring progress. A final report will be delivered to the Maine Climate Council in early 2023.

## Private funding for the Maine Climate Council and State Climate Work

Climate change planning in Maine has a history of involving public-private partnerships. As outlined in the legislation that created the Maine Climate Council, support for Council comes from a mix of 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.

## Council Funding

The Council receives \$500,000 (\$250,000 annually) in the biennial state budget enacted by the Maine Legislature.

The Council also receives additional support from philanthropic 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 and communications.

In calendar year 2022, private funds received totaled \$489,687. They include:

- \$144,687 raised for the Community Resilience Partnership from the Maine Community Foundation's Climate Leadership Fund
- \$15,000 to support the work of the Maine Climate Council's equity subcommittee from the Maine Community Foundation's Climate Leadership Fund
- \$180,000 to support the coordination and development of priority projects for federal Infrastructure climate and energy funding from the Maine Community Foundation's Climate Leadership Fund and \$25,000 from the Elmina B. Sewall Foundation

- \$125,000 for youth climate communications support from the Maine Community Foundation’s Climate Leadership Fund

Private funds for the Maine Climate Council, spent January 1, 2021, through December 30, 2022, include:

- Staffing support for the coordination and development of priority projects for federal Infrastructure climate and energy funding – \$73,773
- Additional climate policy staffing, benefits, and costs (limited period position) – \$144,595
- Community Resilience Pilot Project (awards to service providers and communities and associated costs) – \$31,897
- Community Resilience Partnership (Regional Coordinators Pilot and associated costs) – \$105,707
- Communications on the state climate action plan and programs (paid to communications consultants including climate conference for communities) – \$95,583
- Equity facilitation and stakeholder engagement (paid to consultants) – \$3,402

# THE MEMBERS OF THE MAINE CLIMATE COUNCIL

## Co-Chairs

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

Melanie Loyzim, Commissioner of the Department of Environmental Protection

## Members of the State Legislature:

Representative Lydia Blume D-York

Representative Jim Thorne, R-Carmel

Senator Chloe Maxmin, D-Lincoln

Senator David Woodsome, R-York

## Members of the Executive Branch, or their designees:

Amanda Beal, Commissioner of the Department of Agriculture, Conservation and Forestry

Dan Burgess, Director of the Governor's Energy Office

Judy Camuso, Commissioner of the Department of Inland Fisheries and Wildlife

Major General Doug Farnham, Commissioner of the Department of Defense, Veterans and  
Emergency Management

Kirsten Figueroa, Commissioner of the Department Administrative and Financial Services

Designee: Elaine Clarke, Chief Facilities Officer

Laura Fortman, Commissioner of the Department of Labor

Designee: Kimberly Moore, Director of the Bureau of Employment Services

Heather Johnson, Commissioner of the Department of Economic and Community Development

Patrick Keliher, Commissioner of the Department of Marine Resources

Pender Makin, Commissioner of the Department of Education

Designees: Scott Brown, Director of School Facilities

Page Nichols, Chief Innovation Officer

Jeanne Lambrew, Commissioner of Department of Health and Human Services

Designees: Nirav Shah, Director of the Maine Centers for Disease Control and Prevention

Susan Breau, Hydrogeologist - Water Resources Team Manager, Maine Centers for Disease  
Control and Prevention

Bruce Van Note, Commissioner of the Department of Transportation

## Members of Quasi-Government Agencies:

Dan Brennan, Executive Director of the Maine State Housing Authority

Michael Stoddard, Executive Director of Efficiency Maine Trust

**Members Representing Environmental Nonprofit Organizations or Foundations:**

Alexander Buck, President, Horizon Foundation

Kate Dempsey, Maine State Director for The Nature Conservancy

**Members with Expertise in Climate Change Science:**

Ivan Fernandez, Distinguished Professor at the University of Maine's Climate Change Institute & School of Forest Resources

Susie Arnold, Marine Scientist, Island Institute

**Members with Expertise in Resilience, Climate Change Adaptation, Emergency Management, or Disaster Risk Reduction:**

Judy East, Bureau Director, Resource Information and Land Use Planning, DACF

**Other Members:**

Noël Bonam, State Director, AARP Maine

Jessie Perkins, Executive Director of the Bethel Chamber of Commerce

Expert on State's Energy Sector: Ken Colburn, energy and climate expert

Representative of Manufacturing Industry: Benedict Cracolici, Energy Manager for Sappi North America (resigned March 2022)

Representative of Maine's Tribes: Ambassador Maulian Dana, Penobscot Nation

Representative of Municipal Government: Steven C. Golieb, Town Councilor for the Town of Millinocket

Representative of Small Business: Daniel Kleban, Owner of Maine Beer Company Representative of Agriculture: Melissa Law, Owner of Bumbleroot Organic Farm in Windham

Representative of Building and Construction Trades: Matt Marks, Associated General Contractors of Maine

Representative of Marine Fisheries: Patrice McCarron, Executive Director of Maine Lobsterman's Association

Representative of Business: Jeff Saucier, Environmental Control for McCain Foods USA

Representative of Labor: Matt Schlobohm, Executive Director of the Maine AFL-CIO

Representative of Forest Industry: Patrick Strauch, Executive Director of the Maine Forest Products Council

Representative of Maine Youth: Ania Wright, Recent Graduate, College of the Atlantic

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