Reducing Emissions in Maine's Buildings & Transportation Systems:
Accelerating Climate Progress Equitably throughout a Rural State

WORKPLAN NARRATIVE

1. OVERALL PROJECT SUMMARY AND APPROACH

Governor Janet Mills has prioritized tackling climate change, advancing clean energy, and improving the climate resiliency of Maine's communities. The Governor's Office of Policy Innovation and the Future (GOPIF) coordinates the work of the Maine Climate Council, an assembly of scientists, industry leaders, bipartisan local and state officials, and engaged citizens established in law in 2019 to develop plans every four years to address the impacts of climate change on Maine, build resiliency to climate effects, and meet statutory targets to reduce greenhouse gas (GHG) emissions. The Council includes six working groups and two subcommittees: the scientific and technical subcommittee and the equity subcommittee. Together, the Council and its working groups and subcommittee include more than 200 Maine people with a diverse set of experiences and backgrounds to inform climate action planning.

GOPIF works with the Maine Department of Environmental Protection (Maine DEP), the Governor's Energy Office (GEO), Maine Department of Transportation (Maine DOT), other state agencies, the Efficiency Maine Trust (Efficiency Maine), regional and municipal governments, and key stakeholders to advance climate and energy policy. GOPIF serves as the lead agency for the EPA Climate Pollution Reduction Grant (CPRG).

Maine's statutory greenhouse gas (GHG) emissions reduction targets require a 45% reduction in carbon emissions below 1990 levels by 2030, at least 80% reduction by 2050, and carbon neutrality by 2045.

Maine's current four-year climate action plan, *Maine Won't Wait*, contains a suite of eight strategies to meet Maine's climate goals and priorities including GHG reduction measures and climate adaptation and resilience actions.[1] Since the release of *Maine Won't Wait*, on December 1, 2020, Maine has seen encouraging growth of electric vehicle purchases, rapid expansion of public electric vehicle charging stations, and record installations of high efficiency heat pumps – all of which directly address our state's leading causes of GHG emissions and start us on a path to achieve our ambitious plan. Maine is on track to meet its goal of using 80% renewable sources for our electricity by 2030, and the Administration is developing a pathway to reach 100% clean energy by 2040.

However, there remains significant work ahead given the scale of the challenge presented by climate change. Maine faces unique hurdles as we transition away from dependence on fossil fuels: we are a highly rural state where most households depend on vehicles for transportation, we have the highest median age in the nation, and six of our sixteen counties have poverty rates higher than the U.S. The majority of our communities, schools, and households rely on oil, propane, or kerosene for heat, and many of our almost 500 municipalities are small, low-resourced communities that require additional capacity and support to implement clean energy projects.

Maine DEP regularly publishes a statewide inventory of major sources of GHG emissions within Maine. The Ninth Biennial Greenhouse Gas Inventory, published in July 2022, demonstrates that most carbon dioxide emissions from fossil fuel combustion in Maine come from transportation, followed by residential, commercial, and industrial sources.

[1] https://www.maine.gov/climateplan/sites/maine.gov.climateplan/files/inline-files/MaineWontWait_December2020_printable_12.1.20.pdf

Through this application, Maine proposes the following measures to significantly reduce GHG emissions from our two largest sources of emissions: transportation and buildings.

1.) Reducing Emissions in Buildings through "Resilient Community Centers": Public schools and municipal buildings serving low-income and disadvantaged communities in Maine will be able to apply for funding for energy efficiency, clean energy and decarbonization measures to reduce GHG emissions.
2.) Reducing Transportation Emissions through support for accelerated electric vehicle market transformation programs. These measures include:
    a. Expanding incentives and consumer education for light-duty electric vehicle purchases by low-moderate income households and communities.
    b. Piloting Rebates to support Medium- and Heavy Duty zero-emissions vehicle purchase and operation in key geographic hubs.
    c. Extending the state's rural workforce commuting pilot program with electric vehicles.

Together, these measures will catalyze emissions reductions in Maine's critical buildings and transportation sectors, leveraging this one-time CPRG funding to overcome challenges we face as a small, low-income, rural state. Maine has demonstrated leadership and our commitment to climate action. This proposal will provide the additional incentives necessary to ensure that Maine's most vulnerable people and communities can benefit from climate action in the near-term, while demonstrating the benefits and cost-effectiveness of these technologies and models to accelerate momentum for long-term success.

a. Description of GHG Reduction Measures

Measure 1: Clean Energy, Energy Efficiency, and HVAC Improvements in Maine Public Schools and Municipal Buildings

Maine will use CPRG implementation funds to invest in cost-effective decarbonization, efficiency, and clean energy projects in public schools and municipal buildings.

Public Schools: Maine will provide funding to economically disadvantaged schools to install solar energy and storage and transition from fossil fuel-based to heat pump/Variable Refrigerant Flow (VRF) heating and hot water systems, or geothermal heat pumps. The proposed funding will build on and leverage the state's new Green Schools Program at the Maine Department of Education (DOE). Funding will be deployed through competitive grants and will expand technical assistance to schools to invest in clean energy and Heating, Ventilation, and Air Conditioning (HVAC) improvements through this and other federal and state funding opportunities.

Municipal Buildings: Maine will invest in cost-effective decarbonization, efficiency, and clean energy projects in municipal buildings, through the State's existing Community Resilience Partnership (CRP) grant program. The CRP was established in 2021 to provide grants to municipal and Tribal governments in Maine for projects to increase energy efficiency, transition to clean energy, and improve community resilience to the impacts of climate change. In its first two years, the CRP awarded $6.1 million dollars in grants to 103 communities and to 21 service provider organizations that assist small, rural, and disadvantaged communities; the state is working to expand the CRP to include as many of our almost 500 municipalities and Tribal governments as possible. Currently 161 communities are eligible for Partnership grants and an additional 62 are working to complete the eligibility requirements.

To subgrant CPRG funds, the CRP will hold annual competitive grant rounds utilizing a process that is already familiar to communities. Eligible uses of sub granted CPRG funds will be: 1) energy conservation and efficiency retrofits in public facilities; 2) purchase and installation of electric vehicle charging

infrastructure for municipal and public use; 3) clean energy and distributed energy systems for the purpose of increasing municipal energy; 4) public engagement related to activities in 1-3 above; and 5) tracking of energy and cost savings related to 1-3 above; and 6) activities related to local building code implementation. Eligible subgrantees will be municipal governments, Tribal governments, and unorganized territories that have met the eligibility requirements for the CRP.

Table 1. Tasks and Milestones			
Task #	**Task Description**	**Anticipated Milestone Dates**	**Assumptions**
Clean Energy and HVAC Improvements in Public Schools			
1	Maine DOE completes School Building Inventory, containing heating source and other energy systems of all 600 Maine schools; Maine DOE Green Schools Director hired; Green Schools technical assistance RFP launched	June 2024	These tasks are already underway and are funded by state budget dollars.
2	Green Schools technical assistance contractors awarded, begin service	October 2024	CPRG funds will expand technical assistance provided through existing state dollars.
3	Maine DOE issues study reviewing funding/financing options for projects in Maine schools, including guidance on Energy Performance Contracts	December 2024	This is a complementary task directed by the Maine Legislature. The resulting report will help inform the CPRG measure program design and implementation.
4	Complete program design	June 2025	There is no current state grant program that funds these types of projects in schools; program design will be necessary to identify opportunities to braid this funding source with existing incentive programs.
5	The Green Schools Program will issue a competitive opportunity at least once annually for schools to apply for CPRG-funded energy and decarbonization projects	2025, 2026	This funding opportunity will be designed to align with existing application cycles for Maine DOE State Revolving Renovation Fund when available, and/or award cycles for other potential federal funding opportunities.
6	Initial Green Schools projects implemented, grant capital expended	2026-2028	Program design will encourage and support awardees to utilize other available existing state funding, and IRS “direct pay” tax credits.
7	Additional Green Schools projects pursued and implemented	2029-2032	Expanding technical assistance to schools to access this and other federal funding will result in schools accessing ongoing programmatic and technical support after the initial capital from this program is deployed, resulting in the completion of additional projects.
Clean Energy, Energy Efficiency, and HVAC Improvements in Municipal Buildings			
1	Develop subgrant RFA and reporting templates; Issue Round 1 RFA; Award Round 1 subgrants	May 2025	CPRG funding rounds will be integrated into planned grant rounds for state budget funds.
2	Revise subgrant RFA and reporting templates; Issue Round 2 RFA; Award Round 2 subgrants	May 2026	Subgrantees will be encouraged to utilize the Energy Star Portfolio Manager to track energy efficiency improvements, as applicable.
3	Revise subgrant RFA and reporting templates; Issue Round 3 RFA; Award Round 3 subgrants	May 2027	Proposed technical assistance are critical to ensure a robust pipeline of local projects for multiple rounds of grant awards.

4	Revise subgrant RFA and reporting templates; Issue Round 4 RFA; Award Round 4 subgrants; Monitor reporting and compliance	May 2028	Robust recruitment efforts will ensure that new communities continue to enroll and benefit from the CRP.
5	Monitor reporting and compliance	May 2029	Proposed technical assistance will help communities meet reporting requirements.

Table 2. Risks and Mitigation Strategies		
Risk	**Effect on GHG emission reductions**	**Mitigation Strategy**
An insufficient number of communities and schools will apply for funds to implement the proposed measures.	An insufficient number of projects are completed to accomplish GHG emission reductions.	The proposed funding for energy and decarbonization projects in schools includes technical assistance and capacity to support schools to identify projects and apply for funding.
Communities and schools will need to have a sufficient pipeline of projects to expend the proposed funds.	Same as above.	The proposed technical assistance and staff positions are critical to ensure a robust pipeline of local projects for multiple rounds of grant awards to communities and schools.

Heating, cooling, and lighting of buildings are responsible for almost one-third of Maine's GHG emissions. Maine can reduce GHGs by modernizing buildings to use cleaner energy, increasing energy efficiency, and transitioning to cleaner heating and cooling systems, like heat pumps and heat pump water heaters. Maine's PCAP calls for enhanced grant and loan programs to support energy efficiency and renewable energy programs, including storage systems, in local government buildings, and in municipal, Tribal, school, and public housing construction and improvements. This measure was selected because decarbonizing Maine schools and municipal buildings will reduce both GHG emissions and the operating costs of state and local government, as well as improve energy resilience. These projects will "lead by example" in reducing emissions from the buildings sector, demonstrating success while achieving significant emissions reductions. Successful decarbonization projects can provide public education opportunities and encourage other public building investments, as well as increase residential uptake of clean technologies through increased visibility and community acceptance.

There are more than 600 school buildings in Maine, the majority of which are in small rural towns. Of those, only 11 are ENERGY STAR certified schools and eight are LEED-certified schools. Energy is an enormous cost for Maine schools, and research has demonstrated that nearly 30% of that energy is used inefficiently. By being more energy efficient, schools can help reduce GHG emissions, reduce operating costs, and improve students' learning environment through improved air quality.

Table 3. Alignment with PCAP	
Measure	PCAP Title(s) and Page Numbers
Measure 1: Clean Energy, Energy Efficiency, and HVAC Improvements in Maine Public Schools and Municipal Buildings	State of Maine PCAP, Page 25

This measure will meet CPRG goals by providing funding and technical assistance to support municipal buildings and schools to design and implement comprehensive energy savings and GHG reduction projects that reduce demand load, increase energy efficiency, invest in renewable energy and reduce carbon. These investments will release funds currently tied up in paying for expensive fuels that can be used to fund other energy saving measures that will further reduce GHG emissions and other pollutants and costs; the program will encourage municipalities and schools to capture and reinvest ongoing cost

savings throughout the lifespan of equipment, increasing the GHG reduction impact. The projects will capture federal and state financial incentives (such as Investment Tax Credit, 179D or other rebates).

In addition to GHG reductions, these projects will also provide community benefits, including reduction of air pollutants and hazardous air pollutants. In addition, a disproportionately high number of Maine youth suffer from asthma; school-based projects may result in reduced health care expenditures for communities in which they occur.

At least 40% of the municipal grant awards will be to communities that meet the federal CEJST definition of disadvantaged, and 100% of the school grants awards will be made to schools designated as "priority" (and otherwise disadvantaged) by either the federal government or the Maine DOE.[2] In addition, funding will be dispersed across geographic regions and schools of different sizes, with the goal of creating a portfolio of decarbonization case studies that serve as replicable and scalable models.

The measures proposed in the state's CPRG application will also protect Maine's water quality and reduce emissions of other pollutants that adversely affect public health. Many Maine schools and other municipal buildings rely on storing large volumes of oil to heat their buildings, some in locations that are highly vulnerable to flooding and storm damage. Releases from oil heating systems at schools and other municipal buildings have caused contamination of both public and private drinking water supplies in Maine. Additionally, large boilers in Maine schools, municipal buildings, and other community centers produce air pollutants that put our most health-vulnerable populations at risk. Reducing the use of petroleum products in our building sector not only reduces GHG emissions but provides a co-benefit of air quality and water quality protection, another important outcome.

Measure 2: Expand incentives and consumer education for light-duty electric vehicle (EV) purchases by low-moderate income households and communities.

Maine will use CPRG implementation funds to accelerate the state's EV market transformation, prioritizing vehicle incentives for low- and moderate-income (LMI) households to ensure an equitable and affordable transition to clean transportation for all people in Maine. Efficiency Maine is an independent, quasi-state agency that plans and implements energy efficiency programs in Maine through numerous nationally recognized programs. Building on Efficiency Maine's statewide EV program that provides instantaneous rebates across more than 70 participating dealerships, the proposed incentives would be provided as increased rebates that can be applied directly to the purchase or lease of a new or used EV or plug in hybrid electric vehicle (PHEV). In addition, support will be provided to help low-income customers install at-home EV charging. Finally, this program will provide incentives to support municipal, non-profit, and small business (collectively referred to as "community vehicles") fleet electrification, while providing technical assistance in the form of fleet advisory services to municipal and non-profit rebate recipients.

The most equitable EV rebate programs include high rebate amounts for low-income qualified applicants that can be applied directly to the purchase or lease of a new or used EV or PHEV, combined with other incentive programs such as charging installation rebates and the Federal EV Tax Credit to

[2] The EPA's definition of priority schools includes "School districts listed in the Small Area Income and Poverty Estimates (SAIPE) School district Estimates for 2020 as having 20% or more students living in poverty"; the Maine DOE assigns differential rates of state funding to schools based on a combination of factors including tax base and poverty level of students, with the most disadvantaged schools receiving the maximum subsidy award. A combination of these factors will be used to select schools for this program.

further increase cost savings. Outside of addressing the high cost of buying or leasing an EV, public education and accessibility of rebate programs can help increase the number of LMI applicants.

Efficiency Maine currently provides rebates to Maine residents, businesses, government entities, and Tribal governments for the purchase or lease of a new or used EV or PHEV at participating Maine dealerships. In 2023, just 16% of EV rebates from Efficiency Maine went to LMI households. In addition to increased incentives for these households, other strategies could include incentives for rural and other drivers across Maine who drive the most miles.

The program design elements and rebate amounts proposed in this measure are in alignment with the latest iteration of California's rebate program, the longest standing EV rebate program and the largest market for EVs in the country. These elements include:

- Expanding instant rebate amounts by as much as 50% from current levels for LMI drivers, to jump-start awareness and interest in EVs while addressing disproportionate income burden. Existing rebates are $7,500 for low-income and $3,500 for moderate-income; this funding would increase rebates to $10,000 for low-income and $5,000 for moderate income. The proposed measure would also extend eligibility of incentives to include used vehicles for LMI drivers and would support both EVs and federally-qualifying PHEVs. Rebate amounts may be adjusted over time, in response to program metrics.
- For low-income consumers, the program will also offer up to $1,600 for the purchase and installation of a Level 2 home EV charger.

In addition to these rebates, funding will support a comprehensive EV education campaign targeting dealerships, drivers, and community fleet operators, including in-person education and media.

This funding will also increase incentives and provide fleet advisory services for electric community vehicles, including municipal fleets, fleets operated by non-profit organizations, and local small business fleets. Fleet advisory services are a necessary tool to ensure that small and under-resourced fleets can benefit from this vehicle transition. This funding will be allocated through existing programs and made available exclusively to communities designated as disadvantaged by the federal government and/or the Maine-specific Social Vulnerability Index, and to qualifying commercial use vehicles.

Table 4. Tasks and Milestones

Task #	Task Description	Anticipated Milestone Dates	Assumptions
1	Modify existing incentive structure to address barriers for LMI, Community Fleets	Q4 2024	The program will leverage and expand existing programs in Maine offering enhanced rebates for LMI, Community Fleets, update all relevant program literature, advertising and web content.
2	Solicit technical assistance through a competitive RFP process	Q4 2024	Technical assistance would be available for up to 5 years/end of funding period to serve the entities awarded through this program.
3	Solicit contract for comprehensive outreach and education campaign; launch campaign	2025	Priority market segments experience disproportionate barriers to EVs, including limited knowledge of basic EV features and capabilities, how and where to charge, how to find a contractor to install a home charger, and how to access federal and state financial incentives. This campaign will address these barriers.
4	Launch Dealership Training	2025	Maine dealers have familiarity with existing programs, including instantaneous point-of-sale rebate process,

			but lack full understanding of EV features and performance, and require updated training on enhanced rebates for priority market segments.
5	Promote and process instantaneous, point-of-sale rebates on qualifying EV & PHEV purchases/leases	2025-2028	Rolling until all funds are exhausted.
6	Collect and report results	2026-2029	Employing customer surveys, on-site and virtual inspections and other data collection will inform findings on EVs costs and benefits, features, and performance, which will be used to develop consumer education materials, messaging and modify program design as appropriate.

Table 5. Risks and Mitigation Strategies

Risk	Effect on GHG emission reductions	Mitigation Strategy
Delays in program launch and implementation	Delays may reduce cumulative GHG emission reductions in the near-term (2025 – 2030) and associated health benefits.	Leverage existing statewide EV program providing instantaneous rebates across more than 70 participating dealerships.
Program undersubscribed in specific market sub-sectors	Undersubscription may inhibit the necessary shift from "innovators" and "early adopters" to EVs being viewed as more mainstream. This could delay achieving large-scale GHG savings.	Enhance the system of differentiated incentives to increase rebates for customer groups experiencing the greatest barriers or resistance to EVs (e.g., LMI consumers, small business fleets relying on pickup trucks and vans). Limit eligibility for the higher rebates to restricted customer classes, verify eligibility, track, and report results.
Perception that EVs don't perform well in a rural, cold-weather climate	Same as above.	Strategically deploy EV incentives and an education/awareness campaign to overcome myths that EVs are not suitable in rural areas or cold-weather states. Advance this objective by making EVs more prevalent in the fleets, and among local pickups and vans, commonly associated with rural Maine.

The transportation sector is the largest source of CO_2 emissions from fossil fuel combustion in Maine (49%), according to the most recent emissions report from the Maine DEP.[3] *Maine Won't Wait* includes ambitious strategies to reduce transportation emissions by transitioning to EVs, making transportation more efficient, and reducing vehicle miles traveled through increased access to public transit. In addition, the *Maine Clean Transportation Roadmap* (2021), includes program recommendations to expand access to light duty EVs, many of which are reflected in this program design.[4]

[3]https://www.maine.gov/climateplan/sites/maine.gov.climateplan/files/inlinefiles/9th_GHG_Report_FINAL%20%282%29.pdf

[4] https://www.maine.gov/future/initiatives/climate/cleantransportation

The 2023 annual progress report for the state's climate action plan found that, as of October 2023, 12,369 EVs and PHEVs were registered in Maine, compared to a goal of 219,000 by 2030. Access to reliable, convenient, and affordable charging is critical to EV usage: in the last year, the state has leveraged significant federal funds to accelerate EV charging deployment, investing in a network of public, high-speed EV chargers throughout the state. Recognizing that Maine needs to further accelerate the transition to EVs to achieve our GHG emission reduction goals, expanding incentives and education for light-duty EV purchase was selected as a priority for CPRG implementation.

Vehicle incentives for LMI households will ensure an equitable and affordable transition to clean transportation for all people in Maine. The Equity Subcommittee of the Maine Climate Council recommended that the state increase EV ownership among LMI households, renters, and LMI households in rural areas, including through expanded rebates and outreach and engagement.[5]

Table 6 Alignment with PCAP	
Measure	PCAP Title(s) and Page Numbers
Measure 2: Expand incentives and consumer education for light-duty EV purchases by LMI households and communities	State of Maine PCAP, Page 24

Transportation is the leading source of harmful pollutants that cause or exacerbate illness. These investments will prioritize low-income and disadvantaged communities, who disproportionately bear the burdens of transportation pollution. These individuals and communities will benefit directly from less exposure to particulate matter and other harmful transportation emissions.

Through investment in community vehicles, taxpayers will benefit directly from fuel cost savings. In addition, there is an educational co-benefit related to projects in communities, which are highly visible and can serve as showcase investments. Finally, comprehensive, and targeted outreach and EV information will reach drivers who have not historically been reached by existing programs.

These investments will leverage the state's recent significant investments in public EV charging, as well as future National Electric Vehicle Infrastructure (NEVI) funds and Charging and Fueling Infrastructure (CFI) funds. *Recharge Maine* is the state's initiative to create a convenient, reliable, and accessible EV charging network to enable EV drivers to travel across the State, from north to south and east to west. *Recharge Maine* helps to identify which DC Fast Charging Stations have been funded by the state and are held to strict performance requirements, including an uptime of greater than 97%.

Maine has recently enacted the Beneficial Electrification Policy Act (LD 1724 - 2023) which directs Efficiency Maine to develop a plan to switch Maine consumers from fossil fuels to electric alternatives for heating and transportation. It also requires the Maine Public Utilities Commission (PUC) to fund that plan to the extent those alternatives are (a) cost-effective and (b) use less electric ratepayer funds than the amount that rates will decline due to increased electricity consumption. This gives Maine a pathway to fund market-rate purchases of EVs by the public. However, purchases by LMI customers do not pass this screen and therefore will have to be funded through other pathways.

This proposed measure will expand the reach of existing LMI consumer focused EV rebate programs through expanded rebates, access to charging support, and expanded consumer/dealer education, as well as investment in community vehicles which are highly visible. Together, these investments will

[5] https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/Maine%20Climate%20Council_Equity%20Subcommittee%20Final%20Report_March%202023.pdf

accelerate Maine's EV market transformation, ensuring an equitable and affordable transition to clean transportation for all people in Maine.

Measure 3: Pilot Medium- and Heavy- Duty (MHD) zero-emission vehicle (ZEV) purchase and operation in key geographic hubs

Maine will use CPRG implementation funds to establish a pilot truck voucher program to provide vouchers, or discounts, to fleets across the state that purchase or lease medium- and heavy-duty (MHD) zero-emission battery electric or hydrogen fuel cell vehicles (collectively, ZEVs). MHD fleets represent an important segment of the state's vehicles. Among other sectors, Maine's economically important fishing, forestry and agriculture industries all rely on MHD vehicles for moving supplies and products.

In addition to funding vouchers for MHD ZEVs to be administered by Efficiency Maine, the program will make funding available for MHD vehicle charging infrastructure and technical assistance through fleet advisory services. Fleet advisory services are necessary to ensure that voucher recipients plan for fleet electrification and implement successful vehicle and charging projects. The MHD ZEV voucher pilot program will raise awareness about opportunities and benefits of MHD vehicle electrification, and result in a series of successful case studies.

Specifically, the voucher program will prioritize initial rounds of funding for vehicles domiciled in low income and disadvantaged (LIDAC) communities. Voucher amounts will be calibrated to cover no more than 100% of the incremental cost of the ZEV, are stackable with other funds, and will likely range between $100,000-300,000 per vehicle. The voucher program will make limited funding available for vehicle charging infrastructure, capped at $100,000 per site and covering no more than 70% of the cost of the installation. These funds will be stackable with other programs. The fleet advisory service will be competitively solicited and will help fleets plan for electrification and implement vehicle and charging projects funded by the CPRG. Any public entity awarded a vehicle through this program would be required to share information about the experience of using the vehicles to support the program's reporting and analysis and development of educational materials. Program participants will be encouraged to participate in events to raise awareness and community buy-in for vehicle electrification.

In 2020, Maine joined 16 other states and the District of Columbia in signing the NESCAUM MHD Vehicle MOU, adopting goals and committing to the development of an action plan to make at least 30% of new MHD vehicle sales zero emissions by 2030, and 100% of sales zero emissions by no later than 2050.[6] The development of a Clean Transportation Roadmap for the MHD Vehicle sector in Maine (publication date November 2024) will analyze those factors relevant to Maine from the NESCAUM MHD Vehicle action plan, and include consideration of financial and non-financial vehicle and infrastructure incentives, actions to encourage public transit and public fleet zero emission MHD Vehicle deployment, effective infrastructure deployment strategies, regulations and policies, outreach and education, potential costs and benefits of MHD ZEVs, and utility actions to promote MHD ZEVs.

Table 7. Tasks and Milestones

Task #	Task Description	Anticipated Milestone Dates	Assumptions
1	Complete program design	2024	Program design will be informed by the development of the MHD Vehicle Clean Transportation Roadmap.

[6] https://www-f.nescaum.org/documents/multi-state-medium-and-heavy-duty-zero-emission-vehicle-action-plan/

2	Solicit technical assistance through a competitive RFP	2024	
3	First round of program ($1 million)	2025	The program will prioritize fleets located in disadvantaged communities.
4	Second round program ($1 million)	2026	
5	Funding allocated on a rolling basis until expended	2027-2028	The program will set minimum criteria for participation, including a minimum number of vehicles to be eligible for vouchers. It will also offer incentives for EV chargers for fleets that meet minimum requirements.
6	All trucks and charging projects implemented by the end of CY2029	2029	This program will build capacity to support sustained MHD vehicle electrification including among electrical and engineering firms in the state to deliver technical support for planning, procurement, and operation of MHD fleets in Maine; build expertise and familiarity with MHD ZEVs across dealerships serving the Maine marketplace; and increase staff capacity in private fleets to plan for vehicle electrification.

Table 8. Risks and Mitigation Strategies

Risk	Effect on GHG emission reductions	Mitigation Strategy
Non-financial hurdles to accessing incentives (such as knowledge gaps)	Delays may reduce cumulative GHG emission reductions in the near-term (2025 – 2030)	Navigating the transition to MHD ZEVs can entail complications, including understanding procurement options, modeling emissions reductions, site assessments, fleet assessments, workforce needs, and financial analysis. Providing technical assistance with incentives can remove barriers to making incentives successful.
Implementation challenges		Because this is a pilot, the program will be administered by Efficiency Maine, in collaboration with GOPIF, GEO, and Maine DOT, to help address policy and implementation challenges that arise.

This measure was selected as a priority because while innovations in MHD ZEVs are progressing rapidly, adoption has been slowed by the comparatively high costs of these new vehicles in the early, low-volume market, as well as planning and paying for infrastructure. In Maine, MHD vehicles are responsible for 27% of the state's GHG emissions associated with transportation. Currently, only 21 total MHD ZEVs are registered in Maine, including 17 school buses and four transit buses (December 2023).

Table 9. Alignment with Maine's PCAP

Measure	PCAP Title(s) and Page Numbers
Measure 3: Pilot MHD ZEV purchase and operation in key geographic hubs	State of Maine PCAP, Page 24

This measure will result in the successful electrification of 20-40 vehicles, reducing GHG emissions from those vehicles and, importantly, demonstrating success and building the necessary capacity to support electrification in this key sector. Given the extremely early stage of market penetration in Maine, funding a pilot program to get vehicles on the ground in Maine communities and fleets is of utmost importance to the eventual successful electrification of this vehicle segment. It will also reduce exposure to hazardous air pollution, especially particulate matter, the communities in which the trucks operate.

Investments and innovations in zero-emission buses and trucks are progressing at a rapid pace in the United States and across the world. Nonetheless, fleet adoption during this critical ramp-up period has

been slowed by the comparatively high costs of these new vehicles in the early, low-volume market, as well as planning and paying for infrastructure. Policymakers, manufacturers, and end users have experimented with several policy tools to promote clean and zero-emission vehicle adoption. An expanding number of states and regions have adopted a now well-proven policy tool to efficiently deploy zero-emission commercial vehicles—and now infrastructure—faster using an innovative and flexible point-of-sale incentive: the voucher incentive program (VIP).[7]

Maine has historically funded rebate programs for light duty vehicles, both passenger and fleet; and has recently prioritized up to $3 million per year through the Maine School Bus Purchase Program to support the purchase of electric school buses. Additionally, Governor Mills recently signed legislation authorizing Efficiency Maine to establish a pilot program to jump-start market demand for MHD ZEVs in Maine.[8] However, the state does not have a dedicated source of funds sufficient to demonstrate the functionality of ZEVs across a range of MHD classes and applications commonly used in Maine.

Measure 4: Extend the state's rural workforce commuting pilot program with electric vehicles.
Maine will use CPRG implementation funds to expand the state's Workforce Transportation Pilot Program, which expands access to reliable transportation, especially in rural Maine, to connect workers with employment opportunities and it promotes a shared transportation opportunity in a state where public transportation is not feasible in many regions. This program, administered by Maine DOT, provides workforce support through ridesharing, vanpools, e-bike opportunities, and other subsidized transit options through a competitive grant program. The proposed funding would support the expansion of the program to include purchase of hybrid or electric transit vehicles and necessary charging infrastructure. E-bikes could also be purchased through the program. E-bikes can be a lower cost electric transportation solution, and the pedal assist system on e-bikes helps riders get around faster and more easily. Eligible applicants will include employers or groups of employers, municipalities, non-profit organizations, human service organizations, and public/private transportation providers.

Table 10. Tasks and Milestones

Task #	Task Description	Anticipated Milestone Dates	Assumptions
1	Develop application and evaluation criteria	December 2024	These will be developed two months from notice of grant award.
2	Issue Request for Application award grant funds	December 2025 – December 2026	Applications would be accepted and evaluated on a rolling basis in order to accommodate applicants who need additional time and support for project development.
3	Monitor reporting and compliance	December 2026 – December 2029	

Table 11. Risks and Mitigation Strategies

Risk	Effect on GHG emission reductions	Mitigation Strategy
Slow program uptake	Delays may reduce cumulative GHG emission reductions in the near-term (2025 – 2030)	Technical assistance

[7] https://calstart.org/wp-content/uploads/2023/05/Voucher-Incentive-Programs-A-Tool-for-Zero-Emission-Commercial-Vehicle-Deployment_new.pdf
[8] https://legislature.maine.gov/legis/bills/getPDF.asp?paper=SP0061&item=3&snum=131

Depending on a grantee's in-house capacity, additional technical support may be necessary on the installation and operation of charging equipment and the operation of hybrid and electric vehicles.		Technical assistance

This measure was selected as a priority because it reduces GHG emissions and addresses a common workforce challenge in our rural state. Transportation can be a barrier to workers seeking employment and to employers seeking skilled workers. The proposed measure will meet the needs of workers and employers, while reducing GHG emissions first by reducing vehicle miles driven through shared rides, and further by supporting the purchase of hybrid or electric transit vehicles and charging infrastructure.

In recent years, Maine businesses have had to look farther afield to connect with job seekers that meet their skillsets. Through the Workforce Transportation Pilot, Maine has implemented a multifaceted approach to address the transportation challenges that its workforce faces, while reducing the number of miles driven by single occupancy vehicles. For example, nearly 4,000 employees descend on General Dynamics Bath Iron Works' (BIW) shipyard daily, with over half of employees commuting more than 70 miles round trip. BIW used funding from the Workforce Transportation Pilot program to expand bus service for employees and has seen increases in ridership since it began in April 2023. BIW employees have also made greener choices by taking vanpools and carpools, biking, walking or telecommuting, amounting to 12,715 greener trips, 270,937 miles not driven, 116 tons of emissions prevented, and 11,890 gallons of gas saved.

Table 12. Alignment with Maine's PCAP

Measure	PCAP Title(s) and Page Numbers
Measure 4: Extend the state's rural workforce commuting pilot program with electric vehicles	State of Maine PCAP, p 24

Initially funded with $5 million in ARPA funds through the Maine Jobs and Recovery Plan (MJRP), the Workforce Transportation Pilot program is consistent with the Maine Climate Council's recommendation to improve public transportation as a strategy to reduce vehicle miles traveled and thereby reduce GHG emissions from the transportation sector. This measure will reduce exposure to hazardous air pollution, especially particulate matter. Projects will provide healthier transportation options for current employees and provide access to jobs for some individuals who are not employed due to transportation barriers. In addition, the program will ask applicants to describe how their project will connect current and potential workers to high quality job opportunities, which may be defined by factors such as wages and benefits, training opportunities, and opportunities to upskill within the job or with the employer.

The goal of the program is to enhance employment opportunities in rural Maine by enhancing transportation infrastructure and programs to help transport people from population centers and underemployed communities to where the jobs are. Over the past year, the program has awarded $5 million in federal funds to support 14 employers with transportation projects to help Maine organizations and employers with workforce needs. Grantees are required to annually report to Maine DOT on milestones and accomplishments, including the reduction in miles traveled and the associated reduction in CO_2 emissions. Each project provides a case study and examples of best practices that will be shared with other employers as examples of how to support a rural workforce while reducing CO_2 emissions from transportation.

b. Demonstration of Funding Need

Maine has demonstrated leadership and commitment to climate action, and we are making progress in key areas. But we face additional challenges as a small, low-income, rural state. CPRG implementation

funding will provide incentives and additional support necessary to ensure that the benefits of climate action extend to our most vulnerable populations and communities in the near-term, while demonstrating the benefits and cost-effectiveness of these technologies and models to accelerate momentum for long-term success. Although GOPIF has identified multiple federal and state funding sources to advance these measures and requires the available rebates and tax credits be utilized by communities or individuals seeking funds, existing funds do not meet current investment needed to overcome early adoption challenges and ensure that LMI individuals can participate in these incentive programs to achieve market transformation and leverage significant private investment.

Measure 1: Clean Energy, Energy Efficiency, and HVAC Improvements in Maine Public Schools and Municipal Buildings

Public Schools: While some (mostly wealthier) school districts in Maine have been able to invest in clean energy and energy efficiency, many smaller schools, especially in rural areas have not. There is a need to provide technical assistance and to demonstrate the technology and the cost effectiveness of decarbonization, efficiency, and clean energy projects to catalyze transformation in public schools across the state. There are no other regularly budgeted funds available to support these improvements in Maine's public schools. The Maine DOE's School Revolving Renovation Fund (SRRF) provides funding assistance to schools to ensure that students have a safe, healthy, and appropriate learning environment. The SRRF offers funding for identified needs in the areas of health and safety (Priority 1), building systems (Priority 2), energy and water conservation (Priority 3), and learning space upgrades (Priority 4). While $15 million was allocated by this fund in 2023, funding projects at 33 schools, the need far exceeds available funding, and all funding went first to Priority 1 and 2 project types, as required by statute. The state has, outside of a single one-time legislative appropriation, never been able to stretch funds far enough to be able to fund Priority 3 projects.

Maine has existing energy efficiency programs that are funded by ratepayer funds and administered by Efficiency Maine Trust, an independent, quasi-state agency. These programs have included incentives for significant efficiency projects across the state – including in communities and schools; however, rural schools often require a high level of technical assistance to support these efforts and they are not always able to undertake these projects, or consider deeper measures, even with the state incentives to due to financial impediments.

In 2022, Governor Mills made a one-time, $8 million investment in school energy efficiency projects with federal ARPA funds. So far, this funding, administered by Efficiency Maine, has supported 27 heat pump and/or VRF projects, with an additional five in the pipeline (as of March 1, 2024). New federal grant and tax credit programs established through the Inflation Reduction Act could pave the way for more widespread upgrades in years to come—if schools can navigate federal requirements and braid together multiple state and federal funding sources, and if applications from small rural schools are competitive in national competitions. However, Maine schools have not yet successfully been awarded federal funds through multiple rounds of significantly oversubscribed federal competitions.

Municipal Buildings: The state has invested $6.1 million in climate and energy grants to communities through the CRP. But with almost 500 municipalities and Tribal governments in Maine, many with limited staff capacity and relying heavily on volunteers, we need to do more to support decarbonization, efficiency, and clean energy projects in critical public buildings across the state, The CRP is currently administering the State of Maine's $1.6 million federal allocation of Energy Efficiency & Conservation Block Grant (EECBG) funds from the US Department of Energy in two ways: 1) making subawards of up to $100,000 for up to ten disadvantaged communities, and 2) hiring a consultant to develop "energy conservation implementation plans" for an additional 15-20 priority communities in order to develop a pipeline of funding-ready local projects for which communities can apply to the CPRG subgrants. The

CRP will similarly implement a $2.5 million award from Congressional Directed Spending with 10 selected communities that are identified as LIDAC within the CEJST tool. The EECBG pilot has made clear that even when small and disadvantaged communities have identified a priority energy need, they require assistance with developing that project (design specifications, vendor selection), applying for grant funding, and complying with state and federal reporting. Our CPRG request addresses this gap and includes contractual support for projects and grant development assistance to communities.

Measure 2: Expand incentives and consumer education for light-duty EV purchases by low-moderate income households and communities: Access to reliable, convenient, and affordable charging is critical to EV usage, and Maine has invested state and federal funds in EV charging infrastructure along highly traveled charging corridors. Since 2019, Efficiency Maine has spent $8.1 million on consumer-focused EV rebates, providing 4,643 vehicle rebates to customers. Of these, 83 were provided to low income and 152 were provided to moderate income customers – demonstrating a need to both increase funding amounts and other critical EV program design components to equitably reach LMI drivers. Since the start of the program, $1.9 million has been spent on incentives for municipal fleets and other types of community vehicles, resulting in the electrification of 256 vehicles. (Since 2022, this figure is $750,000, resulting in electrification of 132 vehicles).

Federal dollars would enhance current state funding available in the EV rebate program ($4.3 million remaining) and allow the state to take rebate to the next level for target LMI drivers. Even with federal and state incentives, additional funding is needed for education and incentives to make EVs accessible to low-income drivers in order to provide equitable access to their benefits.

Measure 3: Pilot MHD ZEV purchase and operation in key geographic hubs: This is an important sector in Maine, especially for our economically vital natural resource industries. Misinformation about electric vehicles, particularly MHD ZEVs is rampant, and there is a prevalent misconception that the state is not ready for clean trucks. MHD incentives and technical assistance will be critical to support electrification, especially in rural areas. These incentives will be combined with the federal tax credit for MHD ZEVs. There is also potential to leverage future opportunities such as: NEVI funds, CFI funds for charging infrastructure, and investment rising out of the northeast freight corridor charging study for corridor/public charging. Other federal funding opportunities, such as the Carbon Reduction Program, CMAQ, lo-no funding, national highway freight program, and future competitive opportunities like Clean Heavy-Duty Vehicles (forthcoming), Clean Ports Program, and the Clean School Bus program can also contribute to the electrification of this sector.

Measure 4: Extend the state's rural workforce commuting pilot program with electric vehicles: Transit that is effective in rural areas is difficult. This measure would build on an existing transit model that has been successful in the state and would electrify the vehicles to result in even greater emission reductions. The MJRP provided $5 million in ARPA funds to the Maine DOT to support local, regional, and State workforce transportation pilot projects, especially in rural areas. To date, these funds have been awarded to 15 Maine organizations to pilot new ways to connect their workforce to transportation options. The MJRP funds were a one-time economic recovery investment.

c. Transformative Impact

As a small, low-income, rural state, Maine faces additional challenges in reducing our emissions. These one-time investments in our buildings and transportation sectors, which together are responsible for 70% of our greenhouse gas emissions, will ensure that our most vulnerable people and communities benefit from climate action in the near-term. The measures proposed in this application will create transformative impacts that lead to further significant additional GHG emission reductions in the long term, by demonstrating the benefits and cost-effectiveness of EVs and clean energy technologies and

models, accelerating the momentum needed to support long-term market transformation. In a state with so many small towns, the benefits of an energy efficiency project in municipal community center, a neighbor driving an electric vehicle, or the local high school installing solar on the gymnasium can spark the kind of momentum and action required for real market transformation. Without visible, early adopters in every region of the state, progress is more difficult.

Measure 1: Clean energy, energy efficiency, and HVAC improvements in Maine public schools and municipal buildings

Small and with limited resources, many of Maine's rural communities and school districts will need additional funding and technical assistance to implement decarbonization, efficiency and clean energy projects. This measure will support transformative investments, with a focus on low-income and disadvantaged communities. The resulting projects will demonstrate both the technology and the cost-effectiveness, encouraging other schools to make similar investments and transforming these highly visible, important public buildings.

Public Schools: Energy is an enormous cost for U.S. schools. The nation's K-12 school districts spend more than $6 billion annually on energy — more than is spent on computers and textbooks combined. As much as 30% of a district's total energy is used inefficiently or unnecessarily. School districts can and have used the savings from improved energy performance to help pay for building improvements and other upgrades that enhance the learning environment.[9]

A substantial body of evidence links student health and learning to temperature, humidity, and air quality — the elements of the indoor environment that are the target of HVAC systems. Aggravated asthma, absenteeism, poor academic performance, and lost learning time are all real-world consequences when HVAC systems fail. These consequences fall disproportionately on students of color, low-income students, and rural students who are more likely to attend school in buildings suffering from chronic underinvestment. Asthma, which has been found to be responsible for 13.8 million missed school days in a year, is a disproportionate burden for children living in households below the poverty threshold.[10] Maine has one of the highest childhood asthma rates in the country, and high numbers of rural students living below the poverty threshold. Investments in schools fundamentally change the narrative for these students.

Municipal Buildings: Decarbonizing Maine municipal buildings will reduce both GHG emissions and operating costs, as well as improve energy resilience. Communities across Maine are facing increasing challenges from climate-related impacts, such as flooding and damage from intense storms, and developing systems and delivering investments to build resiliency to these impacts is a priority. For local governments, it is critical that emergency services have built-in resiliency to support public safety during emergencies. Often, the municipal building is more than a municipal office, serving as a critical base of operations or emergency warming/cooling center during extreme weather events or housing key social services. However, many Maine communities, especially those most vulnerable to climate impacts, lack the resources to build these resilient systems. The proposed measure will support Maine communities to invest in clean energy, energy efficiency, and resilient energy systems in public buildings.

Measure 2: Expand incentives and consumer education for light-duty EV purchases by low-moderate income households and communities: Low-income communities and communities of color disproportionately bear the burdens of transportation pollution. These communities also face high

[9] https://legislature.maine.gov/statutes/5/title5sec1764-A.html

[10] Ibid

barriers to transitioning to cleaner forms of transportation due to high costs, limited infrastructure, and systemic disinvestment. These investments will directly serve low-income drivers and the communities in which they live, making targeted investments and achieving benefits for folks historically second-in-line for programs whose sole focus is market transformation.

Rural and low-income populations in Maine will benefit from lower operating and maintenance costs associated with EVs. These households are often unable to access affordable and convenient public transportation, and income restricts access to new, more reliable, or more affordable personal vehicles. Vehicles in rural areas in Maine tend to be older, less efficient, less reliable, and more expensive to operate than vehicles in urban areas. Increasing ownership of high efficiency vehicles has the potential to reduce emissions and reduce a household's spending on transportation, particularly important given the recent volatility in, and increasingly high, fuel prices.

Measure 3: Pilot MHD ZEV purchase and operation in key geographic hubs: Voucher programs at the state and city levels have proven highly successful in activating local or regional markets for advanced clean—and now primarily zero-emission—vehicle options. However, this market activation must expand beyond early adopter states to meet the critical climate and air quality goals committed to at the federal level and adopted by many states. When combined with the federal tax credit for MHD ZEVs, a broader network of state and regionally based voucher incentives will greatly increase the size and scope of the transitional market, leading directly to improved air quality and petroleum reductions. Cities and states are searching for the best methods to meet their climate goals and reduce harmful criteria air pollutants. Voucher programs are a proven, effective tool to speed replacement of polluting commercial vehicles with the zero-emission options available now.[11]

Measure 4: Extend the state's rural workforce commuting pilot program with electric vehicles: The Workforce Transportation Pilot program implements the Maine Climate Council's recommendation to improve public transportation as a strategy to reduce vehicle miles traveled and thereby reduce GHG emissions from the transportation sector. By electrifying that transit, GHG emissions are reduced even further. Projects will provide healthier transportation options for current employees and provide access to jobs for some individuals who are not employed due to transportation barriers.

2. IMPACT OF GHG REDUCTION MEASURES

Table 11 provides estimates of the cumulative emission reductions in metric tons of carbon dioxide equivalent ($mtCO_2e$) anticipated from implementation of the proposed measures for two time periods: 2025-2030, and 2025-2050, along with the estimated cost effectiveness of the reductions. Further details on quantification methods, relevant assumptions, and annual emission reduction estimates are provided in the Technical Appendix to this application.

Implementation of the proposal will result in durable GHG emission reductions. Installed measures and replaced vehicles will remain in operation through their associated lifetime, which extends beyond 2030 in all cases. If the lifetime of a technology is shorter than 25 years and will cease being in operation prior to 2050, that lifetime has been accounted for the cumulative emission reduction models.

Implementation of the proposal is highly cost-effective. The cost-effectiveness of the proposal, inclusive of all measures in this application, is $79.74 per metric ton of CO_2e reduced. Costs associated with each measure are detailed in the Budget Table spreadsheet accompanying this application.

[11] https://calstart.org/wp-content/uploads/2023/05/Voucher-Incentive-Programs-A-Tool-for-Zero-Emission-Commercial-Vehicle-Deployment_new.pdf

Table 11. Cumulative GHG Emission Reductions Anticipated from Implementation of Proposed Measures			
Priority Measure	**Cumulative GHG emission reductions ($mtCO_2e$)**		**Estimated Cost per GHG emission reduction ($mtCO_2e$)**
	2025–2030	**2025–2050**	**2025-2050**
Clean energy, energy efficiency, and HVAC improvements in Maine public schools and municipal buildings			
Measure 1a: Municipal Buildings	31,206	91,300	$77.87
Measure 1b: Schools	57,804	180,411	$83.47
Reducing transportation emissions through support for accelerated EV market transformation markets:			
Measure 2: Light Duty EV Incentives	29,785	103,005	$174.75
Measure 3: MHD ZEV Pilot	24,895	188,595	$26.51
Measure 4: Rural Workforce EV Transit Program	9,867	53,268	$75.09
Total	**153,557**	**616,579**	**$79.74**

3. ENVIRONMENTAL RESULTS – OUTPUTS, OUTCOMES, AND PERFORMANCE MEASURES

a. Expected Outputs and Outcomes

Reduction in cumulative metric tons of GHG emissions:

- 2025 – 2030: 153,557 metric tons CO_2e
- 2025 – 2050: 616,579 metric tons CO_2e

Table 14. Reduction in annual criteria pollutant (CAP) and hazardous air pollutant (HAP) emissions in 2030						
CAP or HAP	**CO**	**NOx**	**PM10**	**PM2.5**	**VOC**	**SOx**
Annual Short Tons Reduced in 2030 in LIDAC communities for M2 and M3	33.32	1.78	0.09	0.09	3.15	0.10

Measure 1: Clean energy, energy efficiency, and HVAC improvements in Maine public schools and municipal buildings.

- Capitalize decarbonization projects in 10-20 schools.
- Provide technical assistance to an additional 10-15 schools in years 1-3 of the program.
- Award 5-20 subgrants annually of between $50,000 and $200,000.
- Lower energy demand and energy costs for schools, municipalities, and Tribes.
- Lower school-related tax expenditures for taxpayers in districts with priority schools.
- Reduced exposure to byproducts of combustion in school environments.
- Increased capacity to provide technical assistance to schools, municipalities, and tribes.
- Increased program capacity with new 1 FTE program coordinator to engage additional LIDAC communities; and 1 FTE green schools program coordinator.

Measure 2: Expand incentives and consumer education for light-duty EV purchases by low-moderate income households and communities.

- Reduce transportation fuel expenditures for LMI drivers and for public, non-profit, and select private fleets.
- Reduce exposure to particulate matter and other air pollution for LMI drivers and the communities in which they live.
- Increase staff capacity for public, non-profit and private fleets to plan for, and implement, successful vehicle electrification projects.
- Enhanced community engagement, as measured by an increased number of ongoing actions to engage with organizations and residents of disadvantaged communities, and other stakeholders.

- Estimated facilitating the purchase of approximately 1,720 light-duty electric vehicles.
- Increased participation in rebate programs by dealerships.

Measure 3: Pilot MHD ZEV purchase and operation in key geographic hubs.

- Reduce exposure to hazardous air pollution, especially particulate matter, for operators of trucks and the communities in which they operate.
- Increase staff capacity in private fleets.
- Enhance community engagement.
- Purchase 40-57 vehicles across 5-10 fleets.
- Install up to 10 DC Fast Chargers.

Measure 4: Extend the state's rural workforce commuting pilot program with electric vehicles.

- Transition to electric and hybrid vehicles will improve local air quality and reduce pollution.
- Enhanced organizational and staff capacity and understanding of the operation and maintenance of hybrid and electric vehicles and associated charging infrastructure.
- Enhanced level of community engagement, as measured by an increased number of ongoing actions to engage with organizations and residents of disadvantaged communities, as well as entities who support or otherwise engage regularly with disadvantaged communities.
- Estimated GHG cumulative reductions are based on supporting up to 45 new light duty hybrid or electric vans, installing up to 9 Level 2 chargers, and purchasing up to 40 e-bikes.

b. Performance Measures and Plan

Partners will track progress for each performance measure within their jurisdiction by the methods outlined below and report such progress to GOPIF. GOPIF will provide a status update with respect to each performance measure to EPA in the semi-annual reports and final report as well as the *Maine Won't Wait* annual progress report.

Measure	Performance Measures
Measure 1: Clean energy, energy efficiency, and HVAC improvements in Maine public schools and municipal buildings	• Energy cost savings over time • Funding for projects capitalized and reinvested in projects • GHG reduction over time
Measure 2: Expand incentives and consumer education for EV purchases by low-moderate income households and communities	• Number of rebates granted each year • Number of vehicles electrified • Number of engagement/PSA announcements made
Measure 3: Pilot MHD ZEV purchase and operation in key geographic hubs	• Number of rebates granted each year • Number of vehicles electrified • Reduction of GHGs
Measure 4: Extend the state's rural workforce commuting pilot program with electric vehicles	• Number of workers impacted • Number of jobs filled or created • Number of vehicle miles traveled by hybrid or electric vehicles • Number of vehicle miles traveled foregone as a result of the program • Any vehicle miles traveled added by creating transportation options for new employees who otherwise would not have been traveling to work

Measure 1: Clean energy, energy efficiency, and HVAC improvements in Maine public schools and municipal buildings: Schools will be encouraged to use Energy Star Portfolio Manager (ESPM) or a similar tool to establish a pre-project baseline and to document energy bills on an ongoing basis for the first five years of the investment. Technical Assistance will be provided via the state and federal partners to on-board schools to ESPM or a similar tool. Schools will also be required to participate in the generation of

case studies, which will be created and updated in partnership with contracted technical assistance services. Contracted technical assistance services will be required to report on the number of schools served, funding sought and awarded, and projects completed. Maine DOE will conduct its School Building Inventory at least every three years, tracking progress in heating system conversions driven by this and other programs. CRP subgrantees will be encouraged to utilize the ESPM to track energy efficiency improvements, as applicable.

Measure 2: Expand incentives and consumer education for light-duty electric vehicle (EV) purchases by low-moderate income households and communities: Employing customer surveys, on-site and virtual inspections and other data collection will inform findings on EVs costs and benefits, features, and performance, which will be used to develop consumer education materials, messaging and modify program design as appropriate.

Measure 3: Pilot Medium- and Heavy- Duty Zero-Emissions Vehicle purchase and operation in key geographic hubs: Trucks receiving vouchers will be required to report on operations, savings, and other metrics for the first five years of the program, via telematics or other reporting mechanisms.

Measure 4: Extend the state's rural workforce commuting pilot program with electric vehicles: Along with metrics on the number of workers impacted and jobs filled or created, grantees will be expected to report on the number of vehicle miles traveled by hybrid or EVs, the number of vehicle miles traveled foregone as a result of the program, and any vehicle miles traveled added by creating transportation options for new employees who otherwise would not have been traveling to work.

c. Authorities, Implementation Timeline, and Milestones

The following details the responsible parties and their roles, and responsibilities for implementing each GHG reduction measure and their respective authority to carry out the measure. A detailed implementation timeline—including tasks and key milestones needed to meet measure goals and objectives by the end of the grant period—for each measure is provided in section 1.a above.

Measure 1: Clean energy, energy efficiency, and HVAC improvements in Maine public schools and municipal buildings: Funding for public schools will be administered by Maine DOE in collaboration with GOPIF, GEO and Efficiency Maine and will build on and leverage the state's Lead by Example program, the new Green Schools Program, and the school retrofits program at Efficiency Maine. Funding for municipal buildings will be administered by the CRP, which is administered by GOPIF and GEO.

Measure 2: Expand incentives and consumer education for light-duty EV purchases by low-moderate income households and communities: The program will be administered by Efficiency Maine, in collaboration with GOPIF, GEO, and Maine DOT.

Measure 3: Pilot MHD ZEV vehicle purchase and operation in key geographic hubs: The program will be administered by Efficiency Maine, in collaboration with GOPIF, GEO, and Maine DOT.

Measure 4: Extend the state's rural workforce commuting pilot program with electric vehicles: The program will be administered by Maine DOT.

GOPIF is authorized under §577-A. Maine Climate Council Title 38: Waters and Navigation Chapter 3-A: Climate Change to provide staff support for the Maine Climate Council, subcommittee and working groups. Under the guidance of *Maine Won't Wait*, the four-year climate action plan, all state agencies are empowered to advance implementation strategies that uphold the Climate Council objectives.

The Maine DEP is authorized to conduct a biennial GHG inventory under Title 38: Chapter 3-A: Climate Change §578. Progress evaluation. Maine DEP also has statutory authority to implement the Regional

Greenhouse Gas Initiative in Maine, efficiency standards for appliances, restrictions on high global warming potential hydrofluorocarbons, and to adopt other rules necessary to meet Maine's GHG emission reduction targets.

The Efficiency Maine Trust (Efficiency Maine) is the independent, quasi-state agency established by the Maine Legislature to administer programs that improve energy efficiency and reduce GHG emissions in Maine.[12] Efficiency Maine was established for the purposes of developing, planning, coordinating. and implementing energy efficiency and alternative energy resources programs in the state. The board may apply for and receive grants from municipal, state, federal and private sources for deposit into appropriate program funds, including funds for both residential and business programs.

4. LOW-INCOME AND DISADVANTAGED COMMUNITIES

a. Community Benefits

The measures proposed for CPRG implementation funding will prioritize LIDACs, providing additional targeted funding for key climate and energy programs so that the individuals, households and communities who face the most significant barriers can benefit.

Maine is committed to advancing equity through the state's climate response. *Maine Won't Wait* highlights climate change's unequal effects and the need for the state to calibrate its response to identify and promote solutions to help our most vulnerable populations. The Equity Subcommittee of the Maine Climate Council was established to support ongoing planning and implementation of the State's climate strategies to ensure shared benefits across diverse populations. In January 2023, the Equity Subcommittee adopted its final recommendations for submission to the Maine Climate Council[13] which identified Equity Outcome Metrics for *Maine Won't Wait* key indicators, intended to ensure that climate action benefits all people in Maine, especially those who are most vulnerable. Starting in 2023, the annual Climate Action Progress Report includes these metrics, tracked across multiple implementation strategies, including home heat pumps, specific grant programs invested in socially vulnerable communities, participation of communities that rank high on the Maine-specific Social Vulnerability Index in the CRP, reduction of energy burden, availability of broadband service, and distribution of rebates for EVs.

GOPIF coordinates an inter-agency staff working group to increase coordination and monitor investments in low-income and disadvantaged communities in alignment with the Justice40 requirements. GOPIF has created an internal tracking spreadsheet that links zip codes of communities with the federal CEJST tool to monitor benefits in specific geographies. Additionally, GOPIF uses the following tools to track whether a community is identified as disadvantaged and to monitor where investments are occurring – Geolocation to Census Tract Tool,[14] the EPA IRA Disadvantage Communities Tool[15], and the Climate and Economic Justice Screening Tool.[16] A list of all LIDAC census tracts that can

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[12] See, generally, Title 35-A, Maine Revised Statutes, §§ 10101-10129 (Chapter 97 - Efficiency Maine Trust Act). See also, Title 35-A, §10103 (1) Establishment; purpose.

[13] Equity subcommittee report

[14] Geolocation to Census Tract Tool by the Environmental Impact Data Collaborative at McCourt School Massive Data Institute. https://eidc.shinyapps.io/J40Tool/

[15] EPA IRA Disadvantaged Communities Esri Map. https://epa.maps.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=f3be939070844eac8a14103ed6f9affd&extent=-74.0,40.9,-71.5,42.1

[16] Climate and Economic Justice Screening Tool. https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5

participate in this proposal is included in the attached supplemental materials. Maine will assess, quantify, and report a more thorough analysis of associated community benefits based on actual data collected during CPRG implementation. Maine will track the deployment of GHG reduction measures in and near identified LIDAC census tracts to quantify reduction in GHG emissions and co-pollutant emissions and other community benefits. The partners will include results of these assessments in semi-annual reports to EPA and make the information publicly available. Direct and indirect benefits to low-income and disadvantaged communities from Maine's GHG reduction measures include:

Measure 1: Clean energy, energy efficiency, and HVAC improvements in Maine public schools and municipal buildings
Public Schools: Funding associated with this measure will be made available exclusively to schools designated as disadvantaged by the federal government, and/or to schools who receive maximum state subsidy from the Maine DOE due to their low tax base and/or the percentage of students experiencing poverty. Students, teachers, and other school employees will benefit directly from less exposure to particulate matter. Schools and taxpayers will benefit directly from energy cost savings. There is an educational co-benefit related to projects in schools, which are highly visible in their communities and can showcase their projects at school board meetings; there are also opportunities to incorporate classroom-based teaching and learning about projects in schools.

Municipal Buildings: The CRP will ensure that at least 40% of the subawards are made to communities that meet the federal CEJST definition of disadvantaged or Maine Social Vulnerability Index (SVI). The SVI is based on 17 socioeconomic and demographic indicators taken from U.S. Census data. Communities that the tool identifies as Socially Vulnerable have combinations of those 17 indicators which may increase their vulnerability in the event of an emergency and reduce their ability to prepare for and recover from disruptions. Through the CRP, communities with elevated social vulnerability, as well as communities with smaller population sizes, receive certain considerations that aim to level the grant making playing field. In 2022, 57% of CRP grant dollars were awarded to small communities (pop. < 4,000) and communities with high social vulnerability.

Measure 2: Expand incentives and consumer education for light-duty EV purchases by low-moderate income households and communities: This funding will be made available exclusively to LMI drivers, and to communities designated as disadvantaged by the federal government and/or the Maine-specific SVI. These individuals and communities will benefit directly from less exposure to particulate matter and other harmful transportation emissions. Through investment in community vehicles, taxpayers will benefit directly from fuel cost savings. In addition, there is an educational co-benefit related to projects in communities, which are highly visible and can serve as showcase investments. Finally, comprehensive and targeted outreach and EV information will reach drivers who have not historically been reached by existing programs.

Measure 3: Pilot MHD ZEV purchase and operation in key geographic hubs: While trucking electrification will be a boon to the entire state of Maine, it will particularly benefit Penobscot, Kennebec, Androscoggin, Cumberland, and York Counties which have the highest concentration of electrifiable trucks in the state. Communities living adjacent to major trucking depots, ports, etc., will achieve greater benefits from this program as well. This program will prioritize early rounds of funding for fleets located in disadvantaged communities.

Measure 4: Extend the state's rural workforce commuting pilot program with electric vehicles: As with the Workforce Transportation Pilot, this will be a competitive grant program available to applicants across the state. In its evaluation of applications, Maine DOT may consider factors such as geographic diversity, applicant and project size, socioeconomic factors, and expected impact, particularly on lower-

income workers; Black, indigenous, and people of color (BIPOC) individuals; individuals with disabilities; justice-involved individuals; and both older and younger (age 16-24) adults.

b. Community Engagement

Maine performed extensive community outreach, including to LIDACs, during the development of the measures in this proposal. Maine had the draft PCAP available for public comment throughout February 2024. The straw proposal of the CPRG implementation application was posted publicly for comment between March 8-22, 2024. In addition to the LIDACs identified using the CEJST, the Equity Subcommittee of the Maine Climate Council identified an inclusive and, in some cases, Maine-specific list of priority populations (see supplemental materials), noting that not all priority populations are equally vulnerable to all climate risks, or benefit equally from climate opportunities; these populations are the focus of this application.

Additionally, GOPIF has contracted with the University of Maine (UMaine) to engage with priority populations and partner with community-based organizations to increase participation in the creation of the Comprehensive Climate Action Plan (CCAP). This engagement will deepen relationships between organizations and these available programs, to directly increase benefits available to and accruing in LIDAC communities. UMaine was recently awarded a $1.125 million US EPA STAR grant focused on the role of statewide community-led clean energy networks in advancing community-driven sustainable energy solutions by underserved populations (summary available in supplemental materials).

Maine intends to continue meaningful engagement with LIDACs throughout and following implementation. Project partners will seek input from LIDACs during development of promotional materials, guidance, and other materials.

Measure 1: Clean energy, energy efficiency, and HVAC improvements in Maine public schools and municipal buildings

Public Schools: Maine DOE, Efficiency Maine, GOPIF and other partners regularly receive requests for school solar PV, energy efficiency, and decarbonization projects, only a handful of which can be completed using available state or federal discretionary or competitive funding sources. The Maine Green Schools program will conduct broader outreach about this program through platforms including the Maine DOE Newsroom, the annual commissioner's conference, and other venues.

Municipal Buildings: Thirty-percent of CRP communities rank high on Maine's SVI and 64% have populations less than 4,000. The top requested/funded activities are resilience planning and completing a vulnerability assessment, upgrading to LED lighting, installing heat pumps, completing energy efficiency plans for buildings, conducting energy/GHG emissions baseline tracking, engaging vulnerable groups, installing solar or entering a solar power purchase agreement, transportation planning/bike-ped infrastructure planning, and drinking water protection/stormwater management. In addition to grants and technical assistance, the CRP provides ongoing outreach and engagement.

Measure 2: Expand incentives and consumer education for light-duty EV purchases by low-moderate income households and communities: Through the proposed comprehensive outreach, marketing, and fleet advisory services – as well as the requirement that recipients of community vehicle investments participate in ongoing educational events – the reach of this program will expand beyond direct recipients of rebates to communities and drivers statewide.

Measure 3: Pilot MHD ZEV purchase and operation in key geographic hubs: The program will prioritize fleets located in disadvantaged communities, both small and large; combined with the program emphasis on ongoing participation in public events by the fleets who receive vouchers.

Measure 4: Extend the state's rural workforce commuting pilot program with electric vehicles: Applicants will be encouraged to demonstrate engagement with other potential partners including workforce boards and community action programs. It is expected that some initiatives pursuing funds will be specifically intended to provide connections to job opportunities for individuals not currently in the workforce. Initial outreach will focus on generating awareness of the grant program to all eligible applicants, including organizations that engage with low-income and disadvantaged communities.

5. JOB QUALITY

Work that occurs under this grant will meet all applicable federal labor requirements. *Maine Won't Wait* highlights the present economic momentum of climate and energy action, including renewable energy projects across the state, as well as the burgeoning, homegrown innovations in sustainable forest products, construction trades, and Maine-grown offshore-wind technology that offer significant opportunities, particularly in rural areas hardest hit by past losses of manufacturing jobs.

Governor Janet Mills has set a goal to double the number of clean energy jobs in Maine by 2030 to nearly 30,000 jobs. Clean energy jobs in Maine are growing faster than other states in the region and they pay above average wages compared to other similar trades. Through pre-apprenticeship and apprenticeship program investments in energy and efficiency professions, electrical and HVAC, as well as electrical vehicle technicians, the state is working with both labor unions and employers to train the skilled workforce Maine needs to meet our ambitious climate goals. The state has also invested heavily in credential programs, as well as free community college, creating pathways to skilled trades in many areas of climate and clean energy and supporting a much-needed workforce to meet Maine's needs. The GEO manages the Clean Energy Partnership, which is deploying MJRP dollars and additional biennial budget funds to strengthen targeted clean energy workforce training opportunities and pathways through Maine's community college system. GEO, GOPIF and the Maine Department of Labor are collaborating on workforce development opportunities that advance clean energy, energy efficiency and electrification occupations, and incorporating "Good Jobs Principles" as appropriate and in coordination with the Federal Department of Labor. Maine has passed legislation enacting project labor agreements for certain renewable energy projects, Off-shore Wind port development, and energy efficient housing that will promote job quality opportunities for Maine workers. The state is also working in partnership with training organizations and labor unions to support quality job opportunities in the energy efficiency and clean energy sector in school construction projects and anticipates guidelines that support job quality and labor standards by late 2024, timed well for opportunities in this grant application.

6. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

GOPIF has successfully implemented other federal grants within their jurisdiction. All recipients of sub-awards have collectively implemented billions of federal dollars. Examples of federally funded assistance agreements that GOPIF and GEO are performing or have performed within the last three years include:

U.S. DOE Energy Efficiency and Conservation Block Grant Program (BIL)

- **Assistance Agreement Number:** DE-SE0000622
- **Funding Agency:** State and Community Energy Programs, U.S. Department of Energy
- **Assistance Listing Number**: CFDA No. 81.128
- **Description:** Federal formula funding for municipal clean energy and energy efficiency projects.
- **Funding Agency Contact:** SEP Project Officer Kyle Ellsworth, State Energy Program (240) 805-8279, kyle.ellsworth@hq.doe.gov
- **Status:** The CRP, administered by GOPIF in collaboration with the GEO and other state agencies, is currently reviewing community EECBG project applications.

- **Reporting History:** GOPIF submits quarterly reports to DOE including milestones, financial metrics, process metrics, challenges, and accomplishments.

U.S. EPA Climate Pollution Reduction Grants: Planning Grant

- **Assistance Agreement Number:** 00A01355
- **Funding Agency:** U.S. Environmental Protection Agency
- **Assistance Listing Number**: 66.046 - Climate Pollution Reduction Grants
- **Description:** GOPIF serves as the lead agency for the CPRG including oversight and responsibility for managing grant funds and coordinating activities and deliverables.
- **Funding Agency Contact:** U.S. EPA, Region 1, EPA New England, Project Officer Dan Burke, 617-918-1285, Burke.Dan@epa.gov
- **Status:** GOPIF has submitted the state's PCAP and is developing the state's Comprehensive Climate Action Plan.
- **Reporting History:** GOPIF submits quarterly reports to EPA including project progress, accomplishments and results, and fiscal information.

Grid Resilience Formula Fund Program – Bipartisan Infrastructure Law Section 40101(d)

- **Assistance Agreement Number:** DE-GD0000020
- **Funding Agency:** U.S. Department of Energy Grid Deployment Office
- **Assistance Listing Number**: 81.254
- **Description**: Federal formula program to support projects that increase the resilience of the electric grid and Maine communities to disruptive events while increasing workforce opportunities and aligning with ongoing electric grid modernization and state climate policies.
- **Funding Agency Contact:** Joshua Metz, 304-285-5242, joshua.metz@netl.doe.gov
- **Status:** GEO is currently soliciting project proposals and anticipates making awards to two or more projects in alignment with program objectives in the coming months.
- **Reporting History:** The GEO submits quarterly and annual reports to DOE about progress toward achieving the expected outputs and outcomes, challenges to meeting expected outputs and outcomes during the reporting period, and strategies to address such challenges.

The GOPIF is an agency of the State of Maine with expertise in climate policy. GOPIF serves as a key coordinator, working collaboratively with other state agencies and stakeholders to address critical long-term issues facing Maine. GOPIF supports planning and implementation by providing research, data, and innovative solutions to advance climate and energy policy.

Maine DOT is an agency of the State of Maine with expertise in transportation. Maine DOT is a cabinet-level state agency with primary responsibility for statewide transportation by all modes of travel. The Commissioner of Maine DOT is a member of the Maine Climate Council, and the Chief Engineer is the co-chair of the council's Transportation Working Group. Maine DOT's three-year work plan from 2024-2026 manages and deploys $4.74 billion in federal and state funds for 2,672 discrete projects.

The GEO is an agency of the State of Maine with expertise in energy. The GEO is the designated state energy office tasked with a wide range of activities relating to state energy policies, planning, and development. As the lead energy office for the state, GEO is responsible for providing energy policy leadership and technical assistance and developing energy programs. The GEO administers the U.S. Dept. of Energy State Energy Program (SEP) and has administered the Energy Information Agency's State Heating Oil and Propane Program (SHOPP) since the office was established in 2010. GEO is currently developing a plan for achieving the use of 100 percent clean energy in Maine by 2040. The Director of GEO is a member of the Maine Climate Council and co-chair of the council's Energy Working Group.

Maine DEP is an agency of the State of Maine with expertise in environmental protection and GHG emissions. DEP is authorized to conduct a biennial GHG inventory and has statutory authority to implement the Regional GHG Initiative in Maine, efficiency standards for appliances, restrictions on high global warming potential hydrofluorocarbons, and to adopt rules necessary to meet Maine's GHG emission reduction targets. The Commissioner of DEP is co-chair of the Maine Climate Council.

Maine DOE is an agency of the State of Maine with expertise in education and schools. Maine DOE administers both state education subsidy and state and federal grant programs; coordinates the authoring of the rules for education statutes passed by the Maine State Legislature; provides professional development, information, supports and resources, as well as a system for educator credentialing; and leads many collaborative opportunities and partnerships in support of local schools and districts. The Commissioner of Maine DOE is a member of the Maine Climate Council.

Efficiency Maine is an independent, quasi-state agency established to plan and implement energy efficiency programs in Maine. Efficiency Maine is required to include in their Triennial Plan strategies and funding needed to achieve the goals in *Maine Won't Wait* for heat pumps, weatherization, and EVs.[17] Efficiency Maine is governed by a Board of Trustees with oversight from the Maine Public Utilities Commission. The Executive Director of Efficiency Maine is a member of the Maine Climate Council. Efficiency Maine is currently deploying the $71 million in formula funds through the Home Efficiency Rebates through the Inflation Reduction Act.

Biographies of key project personnel are included with the Other Attachments form.

7. BUDGET

a. Budget summary – Please see the attached Budget Narrative and Budget Table for more detail.

Budget Category	Description	Requested Funds
Personnel	1 FTE CPRG Program Coordinator, 0.5 FTE Fiscal Officer (M1)	**$711,541**
Fringe	1 FTE CPRG Program Coordinator, 0.5 FTE Fiscal Officer (M1)	**$458,948**
Travel	CPRG coordinator site visits, in-state travel (M1)	**$12,938**
Supplies	1 staff computer and associated costs (M1)	**$16,000**
Contractual	RFP for technical assistance to support communities in applying for the CRP grants (M1)	**$1,300,000**
Other		**$47,263,273**
	Subgrant program through the CRP (M1)	$5,000,000
	STACAP Fee	$204,928
	Subaward to Department of Energy for Green Schools (M 1)	$15,058,345
	Subaward to Efficiency Maine Trust for Light Duty EV Program and Medium and Heavy-Duty Pilot (M 2 and 3)	$23,000,000
	Subaward to Maine Department of Transportation (M 4)	$4,000,000
Indirect	10% MTDC	**$227,443**
TOTAL		**$49,990,142**

[17] 35-A MRSA Sec 10104(4)(F)