STATE OF MAINE

LEAD BY EXAMPLE REPORT

2025

GOVERNOR'S OFFICE OF
Policy Innovation
and the Future

GOVERNOR'S
Energy Office

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INTRODUCTION

By taking action to reduce state emissions and promote energy efficiency, Maine state government can help meet the State's emissions reductions required by law while saving taxpayer dollars, building a healthier work environment, investing in Maine's economy, and inspiring others to take action.

In November of 2019, Governor Janet Mills signed Executive Order 13 FY 19/20 "An Order for State Agencies to Lead By Example and Reduce Costs Through Energy Efficiency, Renewable Energy, and Sustainability Measures," (Executive Order 13) which directs Maine agencies to lead by example by investing in energy efficiency, renewable energy, and emissions reductions; promoting health and sustainability in the workplace; and building resilient infrastructure.

Executive Order 13 also established a Lead By Example Leadership Committee, led by the Governor's Energy Office (GEO) and the Governor's Office of Policy Innovation and the Future (GOPIF) with representatives from the Department of Environmental Protection (DEP), Efficiency Maine Trust, Department of Administrative and Financial Services (DAFS), and Maine Department of Transportation (MaineDOT).

Together, the Leadership Committee prepared the first Lead By Example (LBE) report in 2021, generating a baseline of energy use and greenhouse gas emissions from state operations.[1] This emissions baseline, based on the best available data from 2020, was used to establish the goal of reducing state operational emissions a further 30% from 2020 levels by 2030, aligned with statewide statutory emissions reduction requirements[2] and reflected in Maine Won't Wait, the State's climate action plan.[3] The first LBE report also established goals related to efficient buildings, clean transportation, waste reduction, and climate resilient infrastructure. Every two years, the State will report its annual energy use, sources, greenhouse gas emissions, and progress on the LBE plan to the Governor, the Legislature and the public.

Following receipt of the first LBE report, Governor Mills signed Public Law 2022, chapter 693,4 which set in statute the fleet electrification targets recommended by the report, requiring that by 2025, at least 50% of newly purchased or leased light-duty vehicles for state use be zero-emission or plug-in hybrids, where suitable. By 2030, all such vehicles must be zero-emission.

The State's second LBE report, published in 2024, accelerated ambition in the areas of green buildings and energy efficiency. In January 2024 and in partnership with the second LBE report, Governor Mills signed Executive Order 5 FY 23/24 "An Order to Lead By Example in State Owned and Leased Buildings" (Executive Order 5).5 Executive Order 5 commits the State to ensuring that new construction and major renovations of state-owned buildings comply with the latest energy codes, use zero-emissions systems, and include electric vehicle (EV) charging infrastructure where applicable. It also prioritizes energy efficiency in future leased spaces and directs the development of criteria for incorporating advanced wood products and pilot projects using these materials. Additionally, it requires a plan to cut greenhouse gas emissions by 50% and reduce energy use intensity by 25% across state buildings within 10 years.

This report is the State's third LBE report, covering state investments and activities in 2023 and 2024.

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1 https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/Lead%20By%20Example_2021.pdf
2 38 M.R.S. §576-A.
3 https://www.maine.gov/climateplan/sites/maine.gov.climateplan/files/2024-11/MWW_2024_Book_112124.pdf
4 https://legislature.maine.gov/legis/bills/getPDF.asp?paper=SP0456&item=3&snum=130
5 https://www.maine.gov/governor/mills/official_documents/executive-orders/2024-01-executive-order-5-order-lead-example-state-owned-and

This report outlines progress towards the State's LBE targets, emissions from 2024, and actions taken by each agency in 2023 and 2024 towards the State's goals.

In 2023 and 2024, the State of Maine achieved 100% clean electricity procurement for the first time in the State's history and generated nearly 6 million kWh from solar assets, while also progressing on more than 20 state building efficiency projects using $3.5 million in Volkswagen (VW) settlement funds for retrofits. Progress in clean transportation and procurement included reducing over 4.3 million vehicle miles traveled through the GO MAINE statewide commuter program, expanding EV infrastructure, and exceeding the local food purchasing goal a year ahead of schedule. This report establishes priorities for state action in the coming two years, including updated goals around waste and procurement, to further understand and reduce the amount of waste generated from state facilities.

In recent years, state funding and significant federal funding for energy efficiency, transportation and clean energy investments from the Bipartisan Infrastructure Law and the Inflation Reduction Act has supported state agencies in advancing Lead By Example initiatives across their facilities and operations. Today, existing federal funding streams and future federal funding opportunities are less certain, however Maine has a strong foundation and significant opportunity to continue to lead by example. This report outlines progress and opportunities to continue to inspire action, innovation, and leadership to lower costs and reduce emissions of state operations consistent with statewide climate goals and targets.

State Agency Acronyms Used in this Report

Agency Acronym	Agency Name
BAFRR	Bureau of Agriculture, Food, and Rural Resources
BGS	Bureau of General Services
BMV	Bureau of Motor Vehicles
ME CDC	Maine Center for Disease Control and Prevention
CFM	Central Fleet Management
DACF	Department of Agriculture, Conservation, and Forestry
DAFS	Department of Administrative and Financial Services
DECD	Department of Economic and Community Development
DEP	Department of Environmental Protection
DHHS	Department of Health and Human Services
DMR	Department of Marine Resources
DOC	Department of Corrections
DOE	Department of Education

Agency Acronym	Agency Name
DOL	Department of Labor
DPFR	Department of Professional & Financial Regulation
DPS	Department of Public Safety
DVEM	Department of Veterans & Emergency Management
EMT	Efficiency Maine Trust
GEO	Governor's Energy Office
GOPIF	Governor's Office of Policy Innovation and the Future
MaineDOT	Department of Transportation
MaineHousing	Maine State Housing Authority
MEARNG	Maine Army National Guard
MEMA	Maine Emergency Management Agency
MDIFW	Department of Inland Fisheries & Wildlife
OSPS	Office of State Procurement Services

LEADERSHIP COMMITTEE

The Lead By Example Leadership Committee is led by the Governor's Energy Office (GEO) and the Governor's Office of Policy Innovation and the Future (GOPIF) with representatives from the Department of Environmental Protection (DEP), Department of Administrative and Financial Services (DAFS), and Maine Department of Transportation (MaineDOT). In 2023 and 2024, the Leadership Committee met monthly to track and coordinate progress on the LBE initiative. In October 2024 the Committee restarted its monthly webinar series, providing a venue for agencies to learn from each other, receive support and technical assistance, identify and share LBE activities and opportunities, and continue to work together to measure progress on targets. The webinar series will continue throughout 2025 and will focus on providing support to agencies as they develop their LBE plans.

In the State's second LBE report (2024), agencies were asked to establish "Green Teams" and develop plans to achieve LBE targets, drawing on the specific circumstances, priorities, abilities, and enthusiasm of their agencies. Each state agency now has a designated Green Team, comprising individuals from the Commissioner's office, facilities managers, transportation managers, procurement personnel, and other interested parties. These teams are responsible for:

- Ensuring agency participation in educational and technical assistance offered by the Leadership Committee;
- Managing data requests and facilitating comprehensive department-wide responses to the Leadership Committee;
- Developing an agency-specific plan for LBE designed to advance agency leadership on LBE targets; and
- Reporting on progress and barriers through the annual LBE survey.

In 2025, the LBE Leadership Committee is working with each agency to develop their own plans to lead by example. This will include understanding their operational footprint (buildings and vehicles), engaging with their Green Teams and employees, and developing specific ideas and actions to contribute to the State's targets. The LBE Leadership Committee will help identify each agency's unique priorities. As state agencies vary in size and scope, the LBE plans will align with each agency's capabilities and priorities. Each agency LBE plan will include, at a minimum:

- Introduction and mission: why this work is important to the agency;
- Goals and actions related to each LBE target; and
- Fleet electrification plans to achieve the State's statutory fleet electrification targets.

The LBE Leadership Committee will combine the specific commitments from each agency into a statewide LBE action plan, to deliver in 2026.

To support this important statewide work, GOPIF has hired a new LBE program manager. In addition, GEO is providing significant fleet electrification planning support to agencies, which will continue throughout 2025 as agencies complete their fleet electrification plans.

STATE GREENHOUSE GAS EMISSIONS

Executive Order 13 established a goal for state government to achieve greenhouse gas (GHG) reductions consistent with the statewide mandate of 45% reduction from 1990 levels by 2030, and 80% by 2050. In the first LBE report, the State established a complementary target of achieving a 30% reduction in state emissions by 2030, compared to a baseline of emissions in the year 2020. This target reflected the assumption that the State had achieved emissions reductions 17.5% below 1990 levels in 2020, consistent with statewide results, leaving further reductions of 30% from 2020 levels, or 27.5 percentage points, by 2030.

The first LBE report used best available data to establish an emissions baseline of approximately 92,500 metric tons of greenhouse gas emissions, measured in carbon dioxide equivalents (CO_2e) contributed by state operations in 2020. The 2020 baseline emissions value was refined in the 2024 report and has been further refined for this report using updated generation and associated greenhouse gas emissions data for the electricity supplied to the State in 2020. Based on the updated generation data, the 2020 baseline emissions value is 76,235 metric tons of GHG.

Emissions Baseline and State Operational Emissions

Figure 1 and Figure 2 provide an overview of energy consumption by the State's buildings each year from 2020 through 2024 and for vehicles in 2020-2022 and 2024.[6] Moving forward, vehicle fuel use will be collected every other year (i.e., for each even-numbered calendar year) in alignment with the biennial LBE reporting schedule. Detailed data collection on building energy began in 2022 and has been continually refined since. Ongoing analysis of the data found that previous LBE reports included energy use from some federally operated military installations. Since the State has no jurisdiction over federally owned facilities, and no ability to directly implement energy or emissions reduction interventions at those sites, the energy use of those facilities has been removed from the totals. This has reduced the 2020 baseline for electric and thermal energy by 4.8% and 10% respectively as compared to the values presented in previous LBE reports. Figures 1-5 below reflect the updated values.

Since 2020, electricity consumption has increased, while consumption of oil and natural gas has decreased. Though many factors influence differences in energy use from year to year, these changes are due at least in part to the installation of heat pumps at many state facilities, where more efficient electric heat is now offsetting fossil fuel use. In addition, there is new electrical load associated with facilities that have been built and occupied since 2020. Propane, bioheat,[7] and wood[8] use has increased, though these fuels represent only 13% of the total fuel-based energy

6 For on-and off-road vehicles (including marine, air, ATV, equipment, and vehicles not managed by Central Fleet Management), the Office of State Procurement Services (OSPS) reported the quantities of transportation fuel purchased using WEX contracts and direct fuel delivery. This centrally-reported data accounts for the majority of fuel used by state agencies. Agencies were then surveyed for any additional fuel that was purchased outside of the contracts through OSPS.

7 Bioheat is a blend of renewable biodiesel and ultra-low sulfur heating oil.

8 Values associated with wood represent the quantities of wood delivered to sites in 2024. The actual quantity of wood burned as fuel is not recorded and is likely to vary from the amount delivered in a given calendar year.

The Acadia Gateway Center in Trenton features a solar array powering the 11,000 square foot building, and offers electric vehicle charging stations in the facility's 250 car capacity parking area. It will offer regional tourism and park information, visitor restrooms, and serve as an Island Explorer transit hub.

consumption. The total non-electric energy use associated with buildings increased 8% from 2020 to 2024. Nearly all of this increase was due to increases in wood delivered to Mountain View Correctional Facility (MVCF) where it will be burned to offset heating oil. Because reported fuel data reflects fuel *delivered* and not used, it is not known how much of this delivered wood was actually burned in 2024. Much of this wood, while delivered in 2024, likely will not be burned until 2025. If the quantity of wood delivered in 2024 were removed from the totals, then the total increase in non-electric energy use at buildings from 2020 to 2024 would be 0.9%.

There has been a 4% increase in State of Maine operational emissions in 2024 based on the revised 2020 baseline, driven primarily by increases in the transportation sector (Figure 3). Emissions from buildings and facilities decreased 7% between 2020 and 2024. While there was an increase in emissions associated with heating and process fuels,[9] this increase was more than offset by reductions in emissions from the use of electricity. The reduction in electricity emissions is due to the production of electricity from the solar arrays installed in Augusta, and from the State's purchases of renewable electricity, detailed in the Clean Energy section below. Figure 5 illustrates the impact of the solar arrays and other renewable electricity purchases on the emissions associated with electricity use. Transportation emissions increased by 16%, driven primarily by fuel consumption increases associated with a larger state fleet.

As Figure 4 shows, more than half of state operational emissions come from transportation; nearly a third from fuels associated with heating and cooling buildings and powering various processes; and the remainder from electricity generation associated with state electricity usage.

9 "Process fuels" are those fuels used for applications other than conditioning space for occupants or domestic water heating. Examples include water heating at fish hatcheries and aquariums or natural gas or propane used in lab equipment.

FIGURE 1: MAINE STATE ENERGY USAGE (2020-2024)

FIGURE 2: MAINE STATE FACILITIES ELECTRICITY USE (2020-2024)

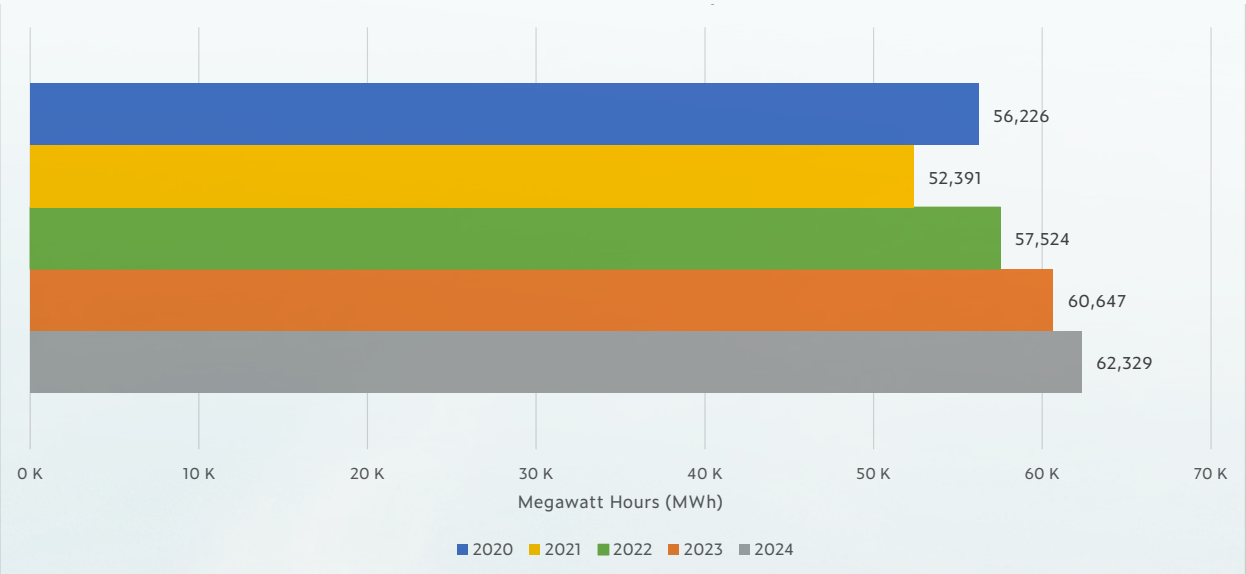


FIGURE 3: MAINE STATE EMISSIONS (2020-2024)

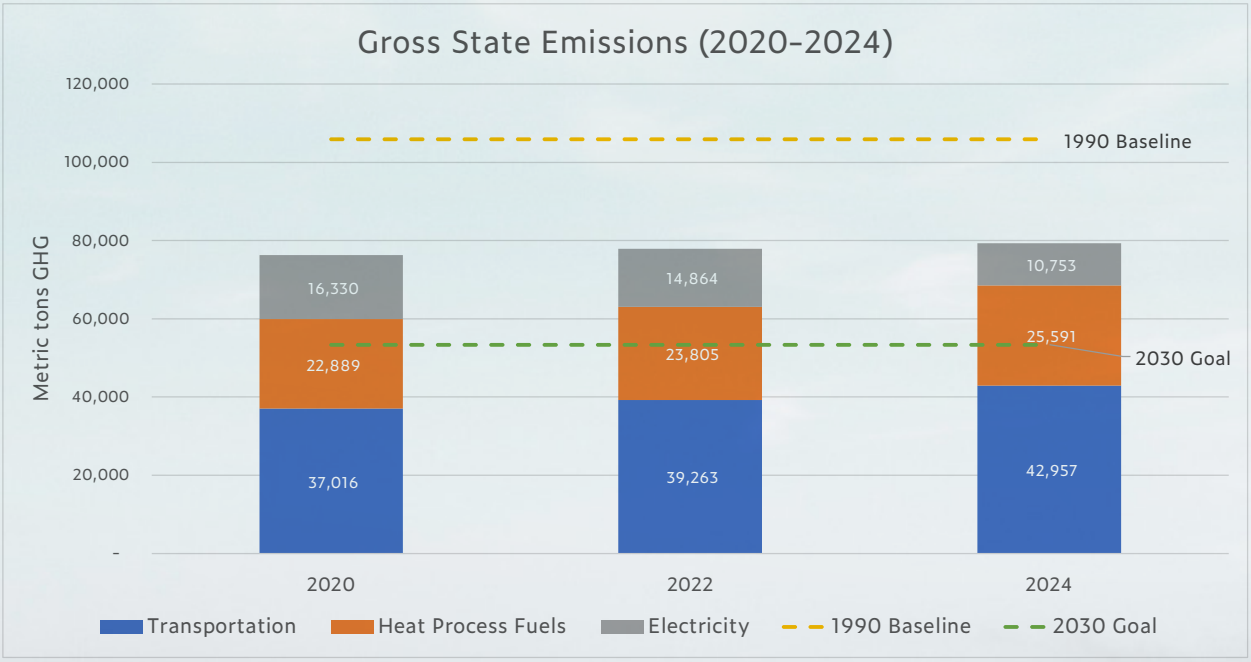


FIGURE 4: STATE OF MAINE SHARE OF TOTAL GREENHOUSE GAS EMISSIONS (CO_2E) BY SOURCE (2024)

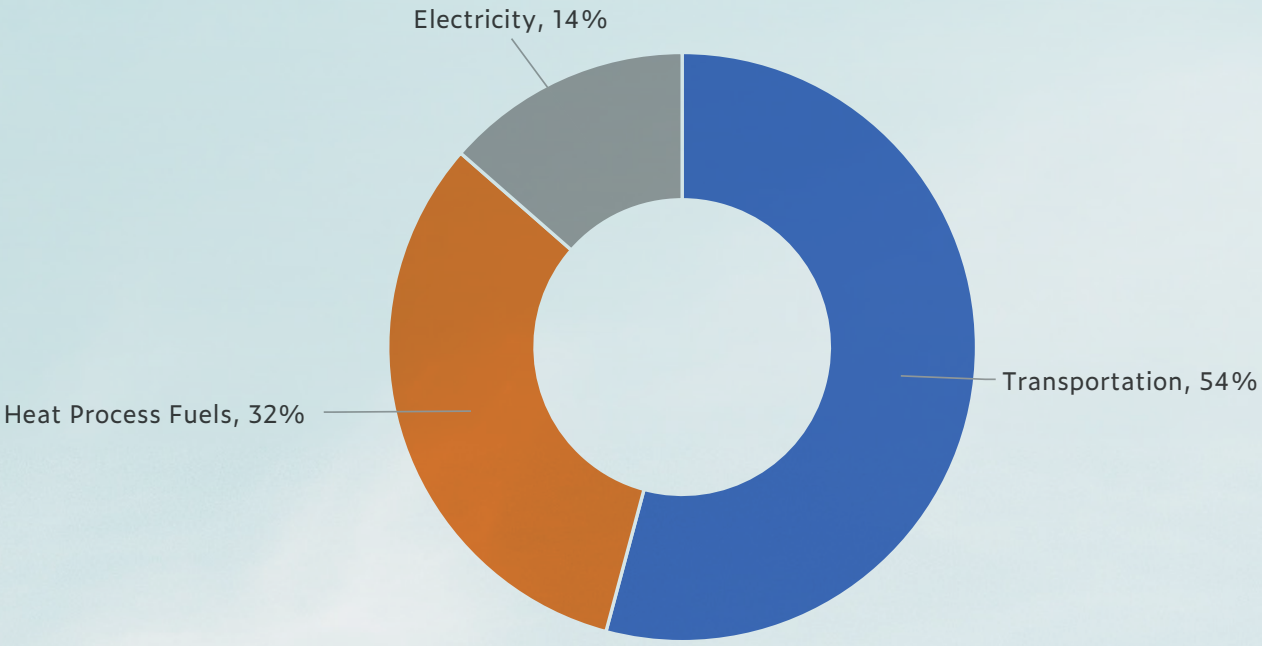
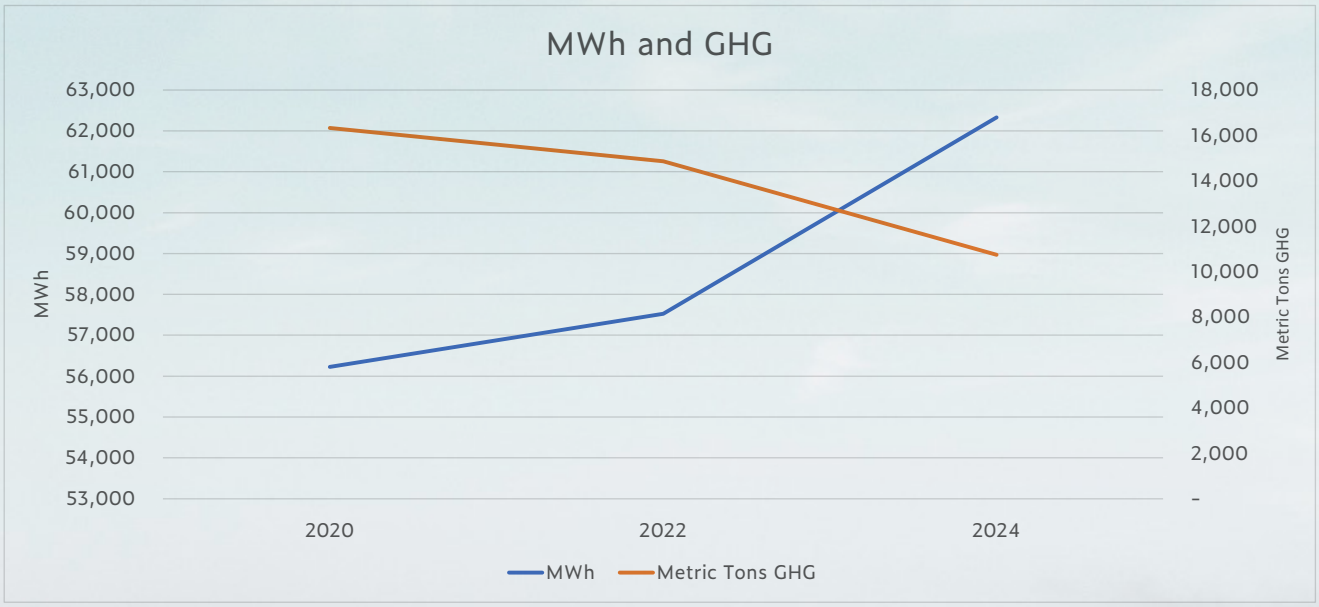


FIGURE 5: STATE OF MAINE ELECTRICITY USE AND ASSOCIATED EMISSIONS (2020-2024)



Emissions From State Facilities

The State of Maine uses three major energy sources in building operations: electricity, natural gas, and #2 heating oil. As compared to 2020, 2024 saw a 5.3% increase in electricity use, a 0.9% reduction in natural gas consumption, and a 3.3% reduction in oil consumption.

Electricity Use

Electricity use reductions between 2020 and 2024 primarily occurred at the Augusta West Campus,[10] Camp Keyes in Augusta, an armory located in Caribou, and Long Creek Youth Development Center. At the August West campus, electricity use was reduced at the Cross Office building, as well as at 221 State Street which went offline in 2024 for a future major renovation. Reductions at the Caribou armory and Long Creek were associated with changes in facility use.

These reductions were offset by increased electricity use at the Augusta East campus, where the Ray building renovation has been completed with a high-efficiency all-electric HVAC system, among other upgrades. Additional increases in electricity use were associated with increased use and occupancy at the new Maine Correctional Center building in Windham, at the new York Judicial Center in Biddeford, and at the BMV headquarters in Augusta. Broadly, there has been increased electricity use associated with heat pump projects installed at facilities throughout the state. These heat pumps are offsetting the use of fossil fuels and operate much more efficiently than the fossil fuel heating systems they replaced. Examples of heat pump projects completed are provided in later sections of this report.

Natural Gas Use

Natural gas use is not widespread in state facilities outside of Augusta, due to limited natural gas distribution within the state, but has expanded to locations in Portland, Bangor, and Lewiston since 2020. Natural gas use at many facilities in Augusta has increased since 2020.

The increases have been offset by large reductions in use at the Maine Correctional Center (MCC) due to the occupation of a new, more efficient facility, and the removal of one unit at the old MCC facility. There have also been notable decreases in natural gas use at the East and West Augusta campuses due to changes in facility use or operation, and the completion of the Ray Building renovation, which removed the facility from the natural gas fired central heating plant. Other decreases in natural gas use are associated with the installation of heat pumps.

Oil Use

Oil use decreased between 2020 and 2024 across many facilities throughout the state. 100 facilities saw reduced oil use in 2024 as compared to 2020. Large reductions were seen at 221 State Street in preparation for a major renovation and at Mackworth Island. The reductions at Mackworth Island were the result of a focused effort to remove unused, deteriorated buildings from the campus hydronic heating loop. Further reductions in oil use at Mackworth are expected in 2025 as this work and its impact come to fruition. The broad reduction in oil usage across numerous facilities is due in part to the ongoing adoption of high efficiency heat pumps that offset heating oil use. DACF, DEP, DHHS, DMR, DOC, DOE, MaineDOT, MDIFW, MaineHousing, and other agencies have been active in installing heat pumps to offset oil use and those efforts are continuing in 2025. Reductions were realized at Mountain View Correctional Facility due to their increased use of wood for heating. Increased oil use occurred at Downeast Correctional facility, Maine State Prison, and numerous MaineDOT and state park locations. Approximately 63 locations saw increases in oil use.

10 For the purposes of this report, the Augusta East and West campuses comprise the buildings served by a single utility meter feeding each location. See Appendix D for a list of buildings included in the Augusta East and West campuses for this analysis.

Emissions from Fuels Explained

Emissions associated with various energy sources are a product of both the magnitude of energy use and the carbon dioxide equivalent (CO2e) factor of a given fuel. Increases or decreases in use of fuels like oil have a greater impact on emissions than other fuels such as natural gas or propane due to the higher CO2e content of oil. So, while oil made up 39% of total fuel energy use in 2024, it accounted for 44% of total fuel related emissions. Conversely, natural gas accounts for 49% of fuel energy use but only 40% of related emissions. To meet greenhouse gas emissions reduction targets, large portions of the energy used in state facilities will need to be converted from higher emitting fossil fuels to low carbon resources and electricity – a transition referred to as beneficial electrification – and at the same time, this electricity must increasingly come from cleaner generation sources.

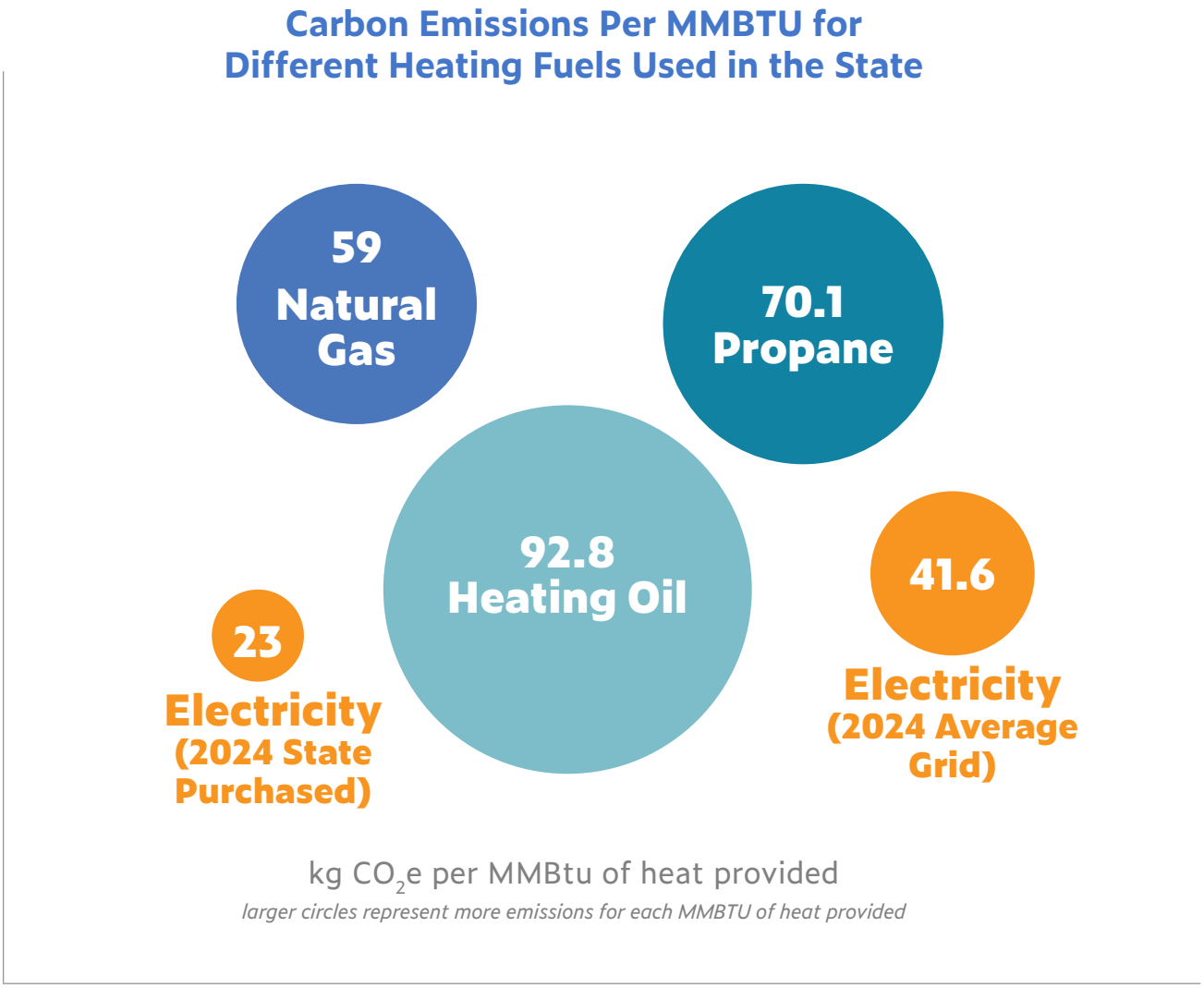


Figure 6. Carbon emissions (in CO2e) of different fuels used for heating state buildings. Assumes a heating efficiency of 0.9 for natural gas, 0.9 for propane, 0.8 for heating oil, and 2.2 for electricity (typical coefficient of performance for a high-efficiency heat pump in Maine).

Emissions From State-Owned Transportation

Central Fleet Management (CFM), a division of DAFS, centrally procures, distributes, and disposes of passenger vehicles and light truck vehicles on behalf of many state agencies – with a few notable exceptions described below. In 2024, CFM managed 2,591 light duty vehicles; of this fleet, 44 are battery electric or plug-in hybrid vehicles and 36 are conventional hybrids (Figures 7 and 8).

In addition to CFM managed vehicles, there are approximately 800 medium- and heavy-duty vehicles (MHDV) in the State fleet, comprising construction vehicles, delivery vans, snow plows, refuse trucks, school buses, utility pickup trucks, and other vehicles; and a significant fleet of planes, boats, and off-road vehicles (snow mobiles, ATVs). There are currently no electric MHDVs in the State fleet.

Finally, the Department of Public Safety (DPS) independently manages a fleet comprised of approximately 691 vehicles of various makes and models. The Maine State Police began a gradual shift from only a handful of hybrid vehicles in 2019 to all front-line vehicles becoming hybrid with the 2023 vehicle order. There are currently 117 conventional hybrid vehicles in the fleet.

Box Trucks	1
Car	705
Motorcycle	1
SUV	337
Trucks: Light Duty	1279
Trucks: Medium Duty	68
Vans: Mini & Full	200
TOTAL	**2591**

Figure 7: State fleet vehicles owned by Central Fleet Management in 2024

Battery Electric Vehicles (BEV)	33
Plug in Hybrid Electric Vehicles (PHEV)	11
Conventional Hybrids (e.g. Toyota Prius)	36
Internal Combustion Engine Vehicles	2511
TOTAL:	2591

Figure 8: Central Fleet Management vehicles by drivetrain 2024

Lead By Example Targets for Maine State Government

The State's first LBE Report established targets to guide state action in support of emissions reduction goals. Targets included state agency action in the areas of clean energy, buildings and energy efficiency, transportation, resilient infrastructure, and green procurement and waste reduction.

Summary of State Lead By Example Targets

Clean Energy and Emissions

- 30% reduction in state emissions by 2030 based on a 2020 baseline.
- Purchase 100% clean energy for state electricity usage by 2024. **COMPLETED**
- Maximize the use of state buildings and lands for clean energy generation and energy storage, where practicable.

Buildings and Energy Efficiency

- The BGS Augusta 'master plan' incorporates and prioritizes opportunities for modern HVAC system upgrades, incorporation of renewables, and building envelope and system improvements that increase efficiency, prioritizing the most cost-effective improvements. **COMPLETED**
- Construction of new buildings will prioritize new highly efficient buildings, incorporating wood products and renewables where possible.

  All future new construction and major renovations must comply with the most recent/stretch building energy code, and have zero-emissions heating, cooling, and water heating sources.

  BGS will develop guidance to procure energy-efficient leased space.
- By the end of 2025, BGS will develop a plan to reduce GHG emissions by at least 50% from existing state buildings and reduce energy use intensity (EUI) by 25% across the portfolio, by 2034.

Transportation

- In 2022, relaunch GO MAINE. **COMPLETED**
- MaineDOT will expand GO MAINE, continue to help encourage shared commuting options for employees.
- By 2022, the State will allow eligible employees to telework. **COMPLETED**
- By 2025, a minimum of 50% of newly purchased or leased light-duty state fleet vehicles will be BEVs or PHEVs; by 2030, 100%.

  The State and agencies will invest in charging infrastructure to meet this target.
- State government agencies will pilot low and zero emission technologies for medium and heavy-duty vehicles as new technologies emerge, ultimately setting future targets based on available technology options.

Resilience

- By 2023, the State will assess the vulnerability of state-owned infrastructure to climate change impacts.
- By 2023, the State will develop more specific guidance for agencies to integrate climate risk management into asset construction and maintenance.
- When building new facilities or upgrading existing ones, climate-ready infrastructure considerations should include the Maine Climate Council's sea level rise projections in project siting or design.

Green Procurement and Waste Reduction

- By 2025, state institutions will purchase at least 20% of their food and food products from local producers. **COMPLETED**
- The State will set targets that lead to increased green procurement and healthier workplaces; and reduce waste/increase recycling.

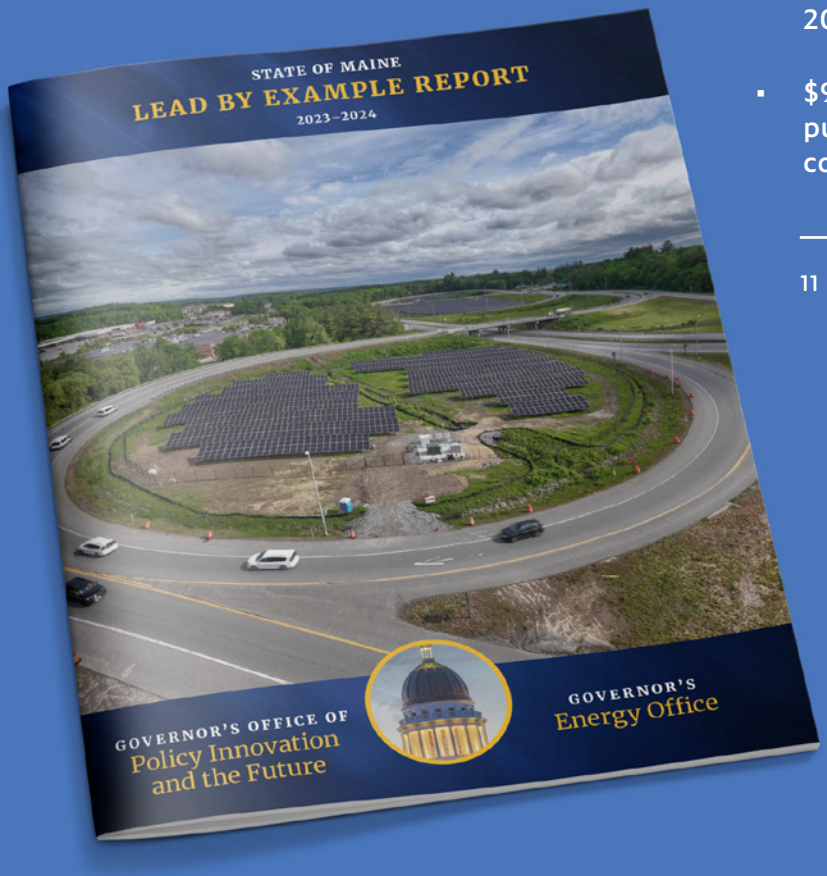
PROGRESS SNAPSHOT

Clean Energy and Emissions

- 7% decrease in emissions from state buildings and facilities since 2020.
- 100% clean energy purchased for state electricity usage in 2024.
- 5,974,654 kWh of electricity supplied by solar assets in 2024.
- 4% increase in state emissions in 2024 based on a 2020 baseline.

Buildings and Energy Efficiency

- More than 20 capital renovation projects to increase efficiency of state-owned buildings were completed or ongoing in 2023 and 2024 (Appendix B).
- $3,586,355 in Volkswagen settlement funds committed for state building efficiency retrofits.



Clean Transportation

- GO MAINE resulted in over 4,340,155 reduced vehicle miles traveled (VMT) between January 2023 and December 2024; 12.20% (529,235) of these VMT were reduced by State of Maine Employees who are also members of GO MAINE.
- 26% of State of Maine employees are teleworking full-time or part-time, avoiding over 369,000 commuting miles each week.[11]
- 7.5% of new vehicles purchased in 2023 and 4.5% of new vehicles purchased in 2024 were battery electric or plug-in hybrid electric, with four more PHEVs pending delivery.
- 24 state properties have publicly accessible EV charging (58 total ports) (Appendix C).

Green Procurement and Waste Reduction

- 29% local foods procured in 2024, exceeding the target of 20% local food procurement by 2025.
- $943,211 spent on procuring 7,933 green purchasing alternatives (items with recycled content) in 2024.

11 https://www.maine.gov/dafs/worksforme

ACHIEVING THE TARGETS

ACTIONS AND EXAMPLES

Since establishing the state's LBE targets in 2021, Maine agencies have taken action on projects across state government. What follows are examples of leadership by state agencies, and identification of next steps for each set of targets.

CLEAN ENERGY

Lead By Example Targets

- **30% reduction in state emissions by 2030 based on a 2020 baseline**
- **Purchase 100% clean energy for state electricity usage by 2024**
- **Maximize the use of state buildings and lands for clean energy generation, where practicable**

In June 2025, Governor Mills signed legislation requiring that 100% of Maine's electricity come from renewable or clean energy sources by 2040. Increasing renewable and clean energy generation and usage within the state are priorities of the administration and can reduce emissions, increase energy reliability, create clean energy jobs, and reduce the volatility of the price of energy for Maine people.

Action 1: By 2024, state government will purchase 100% clean energy for its electricity usage.

In 2024, and for the first time in the State's history, Maine achieved 100% clean electricity usage in state facilities. This was completed through a combination of state-owned solar photovoltaic (PV) assets and through the purchase of renewable electricity credits. Fifty-five percent of the State's electric use in 2024 was considered clean due to the supply requirements of Maine's renewable portfolio standard (RPS). The balance of the State's electricity use was offset through the purchase of renewable electricity. The State intends to continue to achieve 100% clean electricity going forward through a similar strategy.

Action 2: In addition to procuring clean energy, the State will consider opportunities to use state buildings and lands for clean energy generation, where practicable.

Developing both state-owned renewable energy projects and those sited on state lands are a way to further demonstrate the opportunities for reducing the State's energy costs and emissions. At least four state agencies have renewable electricity projects on their buildings and lands, producing nearly 6 million kWh of solar electricity in 2024.

In 2023 and 2024, state agencies continued to lead by example, completing the following solar projects:

- MaineDOT completed solar facilities at I-95 Exit 109, I-95 Exit 112, and at Augusta State Airport in 2023 and 2024. In 2023, pollinator plant species were planted around the solar facilities at I-95 Exit 109 and 1-95 Exit 112. In 2024, pollinator plant species were planted around the solar facilities at the Augusta State Airport. The facilities produce approximately 15,000,000 kWh annually and allow the Augusta Capital complex and MaineDOT to receive credits that will reduce state electric bills over the next 20 years. The State will also receive approximately 300,000 Renewable Energy Certificates (RECs) over this period.[12]

- DACF completed installation of their solar array at Old Town, one of three DACF facilities expected to be up and running in the next year.

- MEARNG added 25 KW of additional solar PV at its Bangor facility, bringing the total amount of solar at that facility up to 68kW. This additional capacity came online in 2023 and will produce approximately 25,000 kWh a year.

In addition, DOC has entered the design phase for a new ~1 megawatt (MW) solar array at the Maine Correctional Center in Windham. DMR, MDIFW, DPS, and DEP are at various stages of solar project development, including for a leased space (DPS).

12 https://www.maine.gov/mdot/climate/renewables/

Leading by Example: Department of Agriculture, Conservation & Forestry

DACF signed a delivery order in December 2023 for the design and installation of rooftop solar photovoltaic arrays on five buildings, located on four sites (Ashland, Old Town, and two in Augusta). The arrays have the potential to produce 445,000 kWh annually. The Old Town array is in place, and work to assemble the remaining arrays will continue during 2025.

Next Steps

Both strategies, procurement of electricity and the development of clean energy projects on state assets and lands, are in alignment with the goals of the LBE initiative and the strategies outlined in *Maine Won't Wait*. The State will continue to plan for future clean energy projects to reduce electricity costs and meet the State's overall emissions goals. The State will continue to pursue available federal tax credits for clean energy production, where available to tax-exempt entities through the Internal Revenue Service's direct pay provision.[13]

To streamline the process for state agencies to design and procure solar projects, DAFS established a pre-qualified vendor list (PQVL) in 2023 for firms providing solar project design and installation; agencies, municipalities, and other public energy users can now access the PQVL to pursue their own projects. In addition, DAFS has created a process for state agencies to access solar energy procurement consulting services through an existing contract with a consultant to evaluate the feasibility and cost-effectiveness of solar projects and to design and review mini-bid proposals. Together, these supports are enabling agencies to continue to lead by example and make significant progress on meeting the State's clean energy targets.

13 https://www.energy.gov/sites/default/files/2024-02/508%20Federal%20Solar%20Tax%20Credits%20for%20Businesses_Feb24.pdf

BUILDINGS AND ENERGY EFFICIENCY

Lead By Example Targets

- **Improve the efficiency of existing state-owned buildings, including through the BGS Augusta Master Plan.**
- **Construction of new buildings will prioritize new highly efficient buildings, incorporating wood products and renewables where possible.**

  All new construction and major renovations must comply with the most recent/stretch building energy code, and have zero-emissions heating, cooling, and water heating sources.

  BGS will develop guidance to procure energy-efficient leased space.
- **By the end of 2025, BGS will develop a plan to reduce GHG emissions by at least 50% from existing state buildings and reduce energy use intensity (EUI) by 25% across the portfolio, by 2034.**

Heating, cooling, and lighting of buildings are responsible for 30% of Maine's greenhouse gas emissions from fossil fuel combustion.[14] Maine state government can reduce greenhouse gases as well as costs by modernizing buildings to use clean energy, increasing the energy efficiency of the building stock, improving how these buildings are managed, and using lower-carbon building materials.

The Governor's 2024 Lead By Example Executive Order accelerated the State's commitments towards building efficiency outcomes. The order commits the State to complying with at least the most recent building and energy code and, in most cases, with the most recent adopted stretch code in new construction;[15] requires all future new construction and major renovations to have non-fossil fuel heating, cooling, and water heating sources; requires EV infrastructure readiness measures in all public improvements at a level consistent with EV purchase requirements contained in 5 MRSA §1830; requires preference to be given to energy efficiency in future leased space procurements, as well as energy data and improvements to be incorporated into future and existing lease terms; directs BGS to develop criteria for advanced wood products and pilot their use in at least two new state initiated projects; and finally directs BGS to develop a plan to reduce GHG emissions by at least 50% from existing state buildings while committing to at least a 25% reduction in EUI across the portfolio in the next 10 years. Together, these measures provide critical direction and support for state agencies to continue to lead by example. In partnership with the Executive Order, the State joined the federal Better Buildings Challenge, committing to a reduction of greenhouse gas emissions from state owned buildings by 50% and an overall energy efficiency improvement in buildings by at least 20% over the next 10 years.

Action 3: Improve the efficiency of existing state-owned buildings, including through the BGS Augusta Master Plan.

In 2023 and 2024, state agencies completed many projects to improve the energy efficiency of state-owned buildings and building systems. These projects include:

- Installation of heat pumps at DACF, DEP, DHHS, DMR, DOC, DOE, MaineDOT, MDIFW, and MaineHousing facilities.
- Installation of heat pump water heaters at DACF, DEP, MaineDOT, and MDIFW facilities.
- Installation of LED lighting and/or lighting controls at DACF, DEP, DHHS, DOC, DOE, MaineDOT, and MaineHousing facilities.
- Insulation, building shell, and/or building envelope upgrades at DACF, DEP, DHHS, DMR, DOE, DPS, and MaineHousing facilities.
- Installation of energy efficiency technology including windows, kitchen upgrades, wood boilers, heat recovery, or office equipment across a range of state owned or leased facilities.

In addition, DACF, DMR, DOC, DOE, MaineDOT, DPS, MDIFW, and MaineHousing are at various stages of energy efficiency retrofits and/or new construction at other facilities statewide. These retrofit or new construction projects will implement heat pumps, heat pump water heaters, weatherization, and energy audits. Notably, DMR has completed the design for a project at its West Boothbay facility that calls for water source heat pumps using ocean water as a heat source. The facility circulates ocean water continuously for the aquariums and a heat exchanger will be installed to serve the planned heat pumps, which will heat and cool the building.

14 Maine DEP, *Tenth Biennial Report on Progress toward Greenhouse Gas Reduction Goals*, June 2024. https://www.maine.gov/tools/whatsnew/attach.php?id=12796425&an=1

15 https://www.maine.gov/dps/fmo/building-codes

Augusta Cultural Building

A complete overhaul of the Cultural Building in Augusta will wrap up in 2025. This project consists of a renovation of the approximately 150,000-square-foot building that houses the State Archives, State Library, and State Museum. This project involves addressing issues revealed during asbestos abatement and mechanical upgrades to accommodate new lighting, a new backup generator, and updated building systems. Other improvements to the Cultural Building intended to increase energy efficiency include addition of extra layers of spray foam insulation; replacement of the roof and of 1960s-era windows; and replacement of the existing HVAC system with a variable refrigerant flow (VRF) air-cooled system for heating and cooling. When all improvements have been completed, the Cultural Building is expected to use approximately 25% less energy than it did prior to renovation and is expected to emit nearly 48 fewer tons of carbon dioxide each year. Agencies will begin occupying the building in spring of 2025.

Among many renovation improvements focused on energy-efficiency, motion-activated LED lights were put up over the humpback whale skeletons displayed at the Augusta Cultural Building. Shown during and after installation. (credit: Sweet Thunder Productions/Maine State Museum).

BGS manages a portfolio of buildings throughout the state that it leases to agencies. More than 20 energy efficiency projects were completed or ongoing in 2023 and 2024 in BGS-owned buildings. A list of such projects is included as Appendix B.

Completed in 2023, the Augusta Area Master Plan is a 20-year plan created to provide for the smart and considered development of future state building needs. It identifies broad, guiding principles for the capital projects and maintenance work performed and creates a roadmap for implementing goals and objectives within project development. The Master Plan, developed with a diverse stakeholder team led by BGS and SMRT Architects & Engineers, incorporates LBE targets including improved energy efficiency, utilizing the most recent building codes, and reducing emissions. The plan takes a holistic view of state buildings, reviews space needs, refreshes goals, and considers other factors to create a vision and pathway for decision makers to follow. The Master Plan makes specific commitments to energy efficient buildings and on-site renewable energy generation, reducing the collective carbon footprint of state space and saving taxpayer money.

Over the past two years, the State has improved its data and policy to support the transition of its existing building stock. BGS worked with EMT to hire an energy manager consultant in October 2022. The energy manager has since worked to establish energy baseline information for state owned buildings, create a database to track energy usage of owned and leased space, and establish a triaged list of potential projects to reduce energy costs. As agencies work to develop their LBE plans in 2025, the energy manager will provide much-needed support to identify, prioritize, plan, and execute renovations.

Efficiency Maine Trust Lead By Example Initiative

In 2021, BGS collaborated with EMT to develop an LBE Initiative. This initiative was authorized to use approximately $3.7 million in Volkswagen Settlement Funds and was tailored to the Maine State procurement process. The LBE Initiative provided financial and technical support for energy efficiency investments to help reduce operating costs and accelerate the transition to net zero carbon in state government buildings. It focused on beneficial electrification, which targeted the replacement of existing oil- and propane-based heating systems with high-efficiency, electric heat pump systems. Incentives under the LBE Initiative covered 60% of eligible project costs up to a maximum of $1 million per project. Additionally, the LBE Initiative offered technical assistance funding for professional services from architectural and engineering firms to develop project design and construction documentation.

Of the $3.7 million in funding, $1.8 million was transferred to the Department of Administrative and Financial Services (DAFS) for the administration of energy efficiency and clean energy measures, of which $1,686,355 has been committed. From mid-2022 to mid-2025, the remaining $1.9 million allocated to EMT has been committed and all projects have either been completed or are in the final stages. A list of project awards from the LBE Initiative is shown in Table 1. In addition, $114,000 was awarded to six state agencies for technical assistance, and the remainder of the funds were used for state energy consulting services and program delivery.

Agency	Facility	Status	Installer	Award Amount	Preapproval Date	Completed Date	Annual Fuel Savings (MMBtus)
MDOT	Lincolnville and Vinalhaven Ferry Terminals	Completed	Fleet Services	$27,150	12/7/2022	5/16/2023	159
MDOT	Hampden I95 South Bound Visitor Center	Completed	Fleet Services	$27,582	1/25/2023	5/16/2023	180
MFS	Southern Maine Regional Headquarters	Completed	ABM Mechanicals	$70,930	10/19/2023	5/3/2024	404
EUT	Edmunds Consolidated School	Completed	Mechanical Services	$191,652	12/7/2023	3/4/2025	663
ANG	Norway Armory	Underway	Phelan Construction	$150,334	2/27/2024	TBD	631
DMR	West Boothbay Facility	Underway	Bowmans Constructors	$672,272	9/27/2024	TBD	1,673
Totals				**$1,139,920**	**N/A**	**N/A**	**3,710**

Table 1. LBE Initiative Project Awards

Projects completed during this reporting period include heating system conversions at the Lincolnville and Vinalhaven ferry terminals and the I-95 Southbound visitor center in Hampden. The ferry terminal projects are notable for the fact that the existing boiler systems were completely decommissioned, and these facilities no longer burn fuel for space or water heating.

Action 4: In the design and construction of new buildings, the State will prioritize highly efficient building design, use climate friendly and wood building materials, including mass timber products, and incorporate renewable energy where possible.

Several state agencies have projects underway or are considering new construction in the coming years, and will work with BGS to procure efficient green buildings which comply with LBE targets. DACF has completed or begun construction of new park entrance stations at Wolfe's Neck Woods, Two Lights, Sebago, Reid, and Range Pond State Parks. The buildings are heated using mini-split heat pumps, incorporate domestic wood products (including wood fiber insulation at Wolfe's Neck Woods), and use LED lighting.

MDIFW continues to advance the planning and design of its new headquarters, which will begin construction in 2025. The project, which consolidates several department functions into one location, involves renovation of the former "CETA Building," which was originally built in 1927, and construction of a two-building addition. The new MDIFW headquarters is expected to obtain at least Leadership in Energy and Environmental Design (LEED) Silver certification and will be heated and cooled using a geothermal system. The all-electric facility will have at least three charging stations for

Reid State Park entrance station – Completed in May 2024

Acadia Gateway Center

Scheduled for completion in 2025, the Acadia Gateway Center in Trenton is an intermodal facility and welcome center for visitors and employees of Acadia National Park, owned and constructed by MaineDOT. The welcome center incorporates rooftop solar panels and high-efficiency mechanical equipment. Lighting is primarily LEDs, and the walls and roof are a Structural Insulated Panel System. The Center is heated using a geothermal heating system. The Center will also have electric vehicle charging stations for visitors and employees who park their vehicles while using the Island Explorer to visit the park.

electric vehicles. The building is designed to be "solar ready," and solar panels with battery storage may be incorporated in the future. The structure will be made from cross-laminated timber, an engineered wood product that replaces energy intensive building materials such as steel and concrete. This project will also enhance opportunities for public education and recreation by providing an outdoor classroom for MDIFW-led educational programming, access to trails, and access to a stone wharf owned by the State along the Kennebec River. The new MDIFW Headquarters building was part of the first "Green Bond" package issued for Maine State government projects.

BGS has incorporated energy efficiency into its standard lease agreement for all new leases and renewals. The standard lease agreement now requires landlords to conduct energy audits using ENERGY STAR Portfolio Manager in conjunction with an on-site inspection. Based on the findings, the landlord must implement cost-effective and reasonable energy efficiency measures during the lease term to improve the energy efficiency score of the building(s), provided such services are available.

In March 2023, the State of Maine, together with 11 other states, joined the Biden-Harris administration's Federal State Buy Clean Partnership, now housed at the U.S. Climate Alliance. The states in the partnership committed resources to expand collaboration and advance states' procurement and use of low-carbon construction materials. Maine is actively exploring collective opportunities to procure building and construction materials with lower embodied carbon.

Next Steps

The State will continue to plan for and undertake projects that lead to reduced emissions from state-owned and leased buildings. In 2025, BGS will complete a comprehensive decarbonization plan for state-owned buildings. The plan will establish a pathway to achieve reductions in both greenhouse gas (GHG) emissions and energy use intensity (EUI) in line with the State's Lead By Example targets.[16] The plan will outline recommendations to reduce GHG emissions by 50% from existing state-owned buildings, while achieving at least a 25% EUI reduction across the state-owned building portfolio, based on a 2020 baseline, by January 2034. Work will include assessing current conditions, prioritizing buildings for upgrades based on current GHG emissions and EUI, creating an implementation plan based on an assumed state budget, and outlining possible financing mechanisms.

Pursuant to the Governor's executive order on buildings, the State will no longer construct new buildings with fossil-fired heating, cooling, or water heating technology. Over the coming year, BGS will develop policy guidance documents for state agencies to implement the Governor's EO, including adopting procurement policies for low carbon materials and increasingly efficient buildings. To facilitate further consideration of building materials including cross-laminated timber, wood-based insulation, and other Maine-based wood products, DAFS will convene state architects and vendors in the next year to explore opportunities to incorporate these materials into building design.

16 Energy use intensity measures a building's energy use relative to its size and other characteristics including use (e.g., office, storage, data center). A lower energy use intensity is reflective of strong energy performance and may vary depending on how the location is utilized.

CLEAN TRANSPORTATION
Lead By Example Targets

- **Relaunch GO MAINE and other programs that encourage shared commuting options and active transportation for state workers. This includes infrastructure for personal or shared bicycle usage during the day.**
- **By 2022, the State shall have a policy on teleworking.**
- **By 2025, a minimum of 50% of newly purchased or leased light-duty state fleet vehicles will be ZEVs or PHEVs. By 2030, 100% of all newly purchased or leased light-duty state fleet vehicles will be ZEVs.[17] The State will ensure the availability of adequate and coordinated charging infrastructure to meet this target.**
- **State government agencies will pilot emerging low and zero emission technologies for medium and heavy-duty vehicles as new technologies emerge.**

17 5 M.R.S. §1830

As transportation is the largest source of emissions in the state, Maine is taking proactive steps to reduce its reliance on internal combustion engine vehicles. Efforts include transitioning the State's fleet to electric and plug-in hybrid vehicles, expanding electric vehicle (EV) charging infrastructure where state employees live and work, and promoting strategies to reduce vehicle miles traveled—such as telework, carpooling, public transit, and active transportation.

Action 5: The State will encourage shared commuting options and active transportation for state workers. This includes relaunching GO MAINE and providing infrastructure for personal or shared bicycle usage during the day.

GO MAINE provides ride matching services for commuters and rewards for those participating. Members can find travel options like buses, carpools, vanpools, biking, or walking, and can record trips and earn rewards for reducing their transportation emissions. Additional benefits include provision of an "emergency ride home," a Multimodal Trip Planner, and preferential parking at state facilities. In 2023, 464 state employees participated in the GO MAINE program, reducing 273,997 vehicle miles traveled (VMT). In 2024, 480 state employees participated, reducing 269,258 VMT.

More than 40 employees, including those from MaineDOT, the Maine Public Utilities Commission, DHHS, the Maine Attorney General's Office, and the Maine Department of Environmental Protection, take part in the State Employee Preferential Parking Program. To enhance awareness and participation, the GO MAINE team has hosted presentations and collaborative meetings across state agencies. For example, at the Maine Department of Labor, the GO MAINE team worked with workforce navigators, employer support staff, and case managers to engage employees in the program.

State agencies are also taking steps to promote active transportation, such as biking and walking, as part of their commitment to employee wellness and sustainability. At DHHS, a bicycle rack

MaineDOT Active Transportation Day

In 2023, MaineDOT hosted an employee "Bike to Work" day, as well as two bike commuting lunch and learn sessions. At the lunch and learn sessions, MaineDOT's Active Transportation Planner presented the basics of bike commuting, equipment, how to make sure your bike is safe, how to plan a route, dealing with weather, and other basic bike safety topics and basic bike maintenance. The Bicycle Coalition of Maine (BCM) had e-bikes available at MaineDOT Headquarters for employees to test ride in May 2024. BCM's e-bike fleet was at MaineDOT Headquarters' 2024 Employee Recognition Day, as well as at a 2024 regional (Region 1, 2, 3) Employee Recognition Day. Many employees took the opportunity to test ride the e-bikes.

At least five employees at MaineDOT Headquarters regularly commute to work on e-bikes in the summer months. One of MaineDOT's employees rode his e-bike 89 times to Headquarters from early March to late November, in 2024. Another employee rode his e-bike to work 50 times in 2024.

was installed at 109 Capitol Street in Augusta in 2024 to encourage cycling as a viable transportation option. At MaineHousing, the Actwell Team strongly promotes a healthy lifestyle through walking and running challenges. In addition to the walking routes available in the area, the MaineHousing facility features a yoga room, a gym, showers, and lockers for staff.

Action 6: The State will develop a policy on teleworking that allows for teleworking options where feasible.

Teleworking is now well established across Maine state government, with permanent policies and practices in place to support remote work where operationally feasible. As the second largest employer in Maine, the State continues to lead by example in workplace innovation and environmental stewardship.

What began as an emergency response to the COVID-19 pandemic has evolved into a sustained, strategic approach to modernizing the workplace. The shift to remote work in 2020 transitioned into formal policy, culminating in the adoption of the Executive Branch Baseline Telework Policy in August 2021.[18] Since then, state agencies have implemented telework arrangements that reflect the specific needs of their operations and workforce. Today, teleworking is fully integrated into daily operations across many departments. These flexible arrangements reduce commuting-related emissions, support employee well-being, and expand the State's ability to attract and retain a skilled and diverse workforce.

Nearly a third of state employees now telework on a regular basis, on average teleworking three days a week.[19] Teleworking has led to a significant reduction in vehicle miles travelled, time spent commuting, and money spent on gas and other vehicle expenses by state employees.

Many agencies have adopted telework policies specific to their workforce and operations. DPFR has implemented a range of hybrid and remote work options across its bureaus and offices. In November 2023, the Office of Securities adopted a new teleworking policy that allows nearly all employees to work remotely two days per week, reducing commuting trips by nearly 40%. The Bureau of Insurance offers a hybrid schedule for most employees, and staff at the Boards of Licensure in Medicine and Nursing can work remotely three days a week or as needed. MDIFW completed a comprehensive revision of its Telework Policy in 2024, outlining eligibility for all positions and authorizing remote work for up to 50% of work time based on role-specific duties. Similarly, MEMA allows employees to telework three days per week, Wednesday through Friday. MaineHousing and DOL also maintain hybrid work models that support department- and role-specific flexibility.

Together, these efforts reflect the State's continued progress toward integrating telework as a practical, emissions-reducing strategy, reinforcing its broader goals around climate action and sustainable operations.

18 https://www.maine.gov/dafs/sites/maine.gov.dafs/files/inline-files/Executive%20Branch%20Baseline%20Telework%20Policy%2008%2026%202021.pdf

19 https://www.maine.gov/dafs/worksforme

Action 7: The State will continue to electrify transportation by transitioning its fleet to ZEVs and PHEVs and by piloting emerging low and zero emission technologies for medium and heavy-duty vehicles.

The State of Maine continues to make progress on statutory Lead By Example fleet electrification goals – to increase the percentage of new light-duty electric vehicle purchases to 50% by 2025 and 100% by 2030.[20] This effort is made possible through a coordinated approach between CFM, individual state agencies, and key infrastructure partners.

CFM, in conjunction with GOPIF and the Project Management Office, conducted a comprehensive fleet analysis to identify priority opportunities for vehicle electrification and infrastructure planning. Agencies received preliminary results from this analysis and will be provided with more in-depth data to guide their fleet electrification planning in 2025. Additionally, most CFM vehicles were equipped with telematics as a way of tracking mileage and vehicle location. This will further help to identify vehicles with operations and mileage suitable for near-term electrification. In 2023 and 2024, 31 battery electric and plug-in hybrid vehicles were added to the state fleet, with additional vehicles on order. DAFS in 2024 issued a directive that established a vehicle acquisition hierarchy where agencies are asked to prioritize battery electric vehicles (BEVs) where feasible, then plug-in hybrids (PHEVs), and finally regular hybrids to maximize the potential cost and emissions savings when purchasing new vehicles. In 2025, the State will roll out a vehicle exemption policy where agencies must submit justifications with their vehicle purchases if selecting non-electric vehicles.

To support long-term electrification, CFM continues working with Procurement Services, BGS, and GOPIF to ensure electric vehicles and charging infrastructure are available on state contracts. In 2024, CFM and GOPIF partnered with Atlas Public Policy to analyze state vehicle data, gathered through fleet surveys, using their Dashboard for Rapid Vehicle Electrification

EV Charging at State Facilities

In 2024, the State of Maine received conditional awards from Efficiency Maine to install new Level 2 chargers at six locations open to the public. Chargers will be installed in the following locations:

- Camden Hills State Park; 280 Belfast Road, Camden, ME 04843
  - » Six ports
- Wolfe's Neck State Park; 426 Wolfe's Neck Road, Freeport, ME 04032
  - » Six ports
- East Capitol Lot 1; 90 Blossom Lane, Augusta, ME 04330
  - » 12 ports
- West Campus Chamberlain Lot; 37 Chamberlain Street, Augusta, ME 04330
  - » 12 ports
- West Campus Lot C; 111 Sewall Street, Augusta, ME 04330
  - » 12 ports
- Calais BMV; 23 Washington Street, Calais, ME 04619
  - » Four ports

These chargers will complement 58 charging ports in 24 locations already available at state facilities. A full list of existing and planned EV charging locations at state agencies is included in Appendix C.

20 5 MRSA §1830

(DRVE) tool. This tool identifies optimal electric vehicle replacements by evaluating the total cost of ownership and the operational characteristics of the vehicles being replaced.

Agency-led initiatives complement this broader effort. DOC added four EVs and installed EV charging at correctional facilities. DHHS acquired three new EVs for the Office of Child and Family Services, with more hybrids on order. MDIFW is piloting a Ford F-150 Lightning with extended range and continues to evaluate the vehicle's performance. DACF and MaineDOT installed EV chargers or EV ready infrastructure at their facilities. DOL added its first EV and is installing a charger at headquarters, while MaineHousing offers workplace charging to promote employee EV use. DACF incorporated four EVs and PHEVs and is pursuing funding to install chargers at state parks. DOE is supporting electric school bus deployment through their bus purchasing program, and DMR is training staff on electric outboard motors and piloting hybrid vehicles.

DPS is focusing on electrifying non-pursuit-rated vehicles, while hybrid pursuit vehicles continue to grow in the fleet. PFR's Office of Professional and Occupational Regulation is also planning to replace inspection vehicles with hybrids. Across departments, agencies are aligning new vehicle acquisitions with the State's hierarchy for electric vehicle options.

MaineDOT is advancing both vehicle electrification and low-emission fuels. In 2025, MaineDOT will introduce the State's first electric-hybrid ferry serving Vinalhaven, and has leased a Ford F-150 Lightning for use in Region 5. Through its partnership with Darlings Auto Group, MaineDOT hosted an EV test drive event for staff to engage with a range of electric vehicle models.

In parallel, MaineDOT continues to reduce emissions from its heavy-duty fleet through expanded biodiesel use. In 2024, 237 heavy-duty trucks and construction equipment operated on biodiesel, up from 170 in 2023, using over 209,000 gallons. Combined CO_2 emissions reductions from biodiesel use totaled over 680 metric tons across 2023 and 2024. Additionally, 53 heavy-duty trucks not meeting clean idle standards were replaced with certified clean idle models over the two-year period. Telematics installed in 560 trucks help MaineDOT monitor and reduce idling for further fuel and

Leading by Example: Department of Corrections

In 2024, DOC expanded its vehicle fleet with the addition of three Ford F-150 Lightning electric trucks and one Nissan Leaf. To support these EVs, the department installed four EV charging stations at correctional facilities across the state. By transitioning to EVs, DOC aims to reduce fuel costs and carbon emissions associated with its transportation operations.

emissions savings. In 2023, the DMR Bureau of Marine Patrol contracted the design and construction of a 57' offshore patrol vessel which will incorporate an EPA Tier 4 compliant diesel engine. It will be the first time this technology has been installed in this style of vessel.

Next Steps

To achieve the State's Lead By Example goals—50% of light-duty fleet purchases being electric by 2025 and 100% by 2030—agencies must develop comprehensive fleet planning and transition strategies. As agencies complete their LBE plans in 2025, GEO and GOPIF, in partnership with CFM and BGS, will assist agencies in developing comprehensive fleet electrification plans to meet the State's goals. These plans will leverage data from the Atlas Public Policy DRVE tool to identify internal combustion engine vehicles eligible for near-term replacement with EVs. With the vehicle acquisition hierarchy now in place, agencies have guidance on how to prioritize replacing these vehicles with EVs. Federal tax credits and state incentives are available to support both EV purchases and the installation of charging infrastructure.

In order to make EVs an attractive and feasible choice, it is essential that charging infrastructure is available where and when agencies need it. The LBE Leadership Committee will continue to roll out policies to facilitate the installation of charging infrastructure for fleet vehicles. This will include streamlining the process for agencies to install non-networked Level 2 charging for state vehicles and developing an at-home charging policy for vehicles that travel home with employees overnight.

Lack of knowledge and understanding of EVs remains a significant barrier to fleet electrification. To help address this, CFM, in collaboration with EMT and other partners, will host up to six EV ride-and-drive events at state facilities over the next year. These events will provide agency staff and fleet managers the opportunity to test drive popular EV models, explore vehicles in use by other departments, and gain hands-on experience.

Additionally, CFM is exploring opportunities for vehicle sharing across agencies and strategies to ensure non-EVs remain available for situations where EVs may not be practical—such as long-distance trips or travel to remote areas. More guidance on these options will be shared with agencies in the coming years.

While the primary focus has been light-duty fleet electrification, the State will continue to explore opportunities for technical assistance to begin electrifying the medium- and heavy-duty vehicle (MHDV) sector, defined as vehicles having a gross vehicle weight rating greater than 10,000 pounds. This includes an assessment of the MHDV fleet to identify immediate opportunities for electrification. Agencies operating MHDVs have been asked to identify opportunities to begin piloting electric MHDVs.

GOPIF will continue working with agencies to encourage employee participation in the GO MAINE program and to highlight examples where telework policies and flexible work-from-home days have been successful in reducing vehicle miles traveled.

RESILIENCE

Lead By Example Targets

- **By 2023, the State will assess the vulnerability of state-owned infrastructure to climate change impacts**
- **By 2023, the State will develop more specific guidance for agencies to integrate climate risk management into asset construction and maintenance. When building new facilities or upgrading existing ones, climate-ready infrastructure considerations should include sea level rise projections specified in 12 MRSA §685-B in project siting or design.**

Maine must improve the climate readiness and resilience of state-owned infrastructure so that it serves Maine better under day-to-day conditions and functions reliably during emergencies. In addition, the State needs to understand the impacts of climate on its workforce, both directly and indirectly, during both climate emergencies and traditional daily operations.

Action 8: By 2023, the State will assess the vulnerability of state-owned infrastructure to climate change impacts

GOPIF received an $809,000 Building Resilient Infrastructure and Communities (BRIC) grant from the Federal Emergency Management Agency (FEMA) to study the vulnerability of state-owned infrastructure to climate impacts and develop a prioritized list of mitigation and adaptation strategies, as recommended by *Maine Won't Wait*. In 2024, GOPIF conducted a request for information to ensure the best available information was used in informing the development of state vulnerability assessment priorities and process. Initial conversations with state agencies further identified the top objectives for the project, and how the assessment would address questions an agency might have about asset vulnerability and impact of climate change on state agency facilities. Following this research, a request for proposal was published to select a consultant with the technical expertise and subject area knowledge to provide effective and efficient results.

The goal of this assessment is to help identify areas where state agency infrastructure is most vulnerable to climate change, and compile and prioritize resilience strategies to mitigate those vulnerabilities and reduce potential public service interruptions. The project follows a four step process that includes: compiling an inventory of state-owned and state-leased physical assets, assessing the future exposure of those assets to climate hazards, evaluating the vulnerability of assets based on their sensitivity, potential impairment, and ability to adapt or recover, and developing agency-specific mitigation and adaptation strategies to reduce risk and increase resilience.

This assessment will produce a list of priority assets that are most vulnerable to climate change, as well as a detailed analysis on their associated physical and operational risks. Additionally, agencies will receive a Resilience Roadmap that identifies effective and appropriate hazard mitigation and adaptation strategies to address these climate risks. Strategies will be tailored to reflect state agency input and include detailed implementation guidance and considerations of high-level timeline, costs, and community impacts, among other factors. The final Roadmap will aim to serve as a guiding document to aid planning, financing, and strategy decisions to address the climate risk of state agency assets and implications for public services. A second phase of the project will develop a climate resilience tool that state agencies and municipalities can use to incorporate climate hazard analysis, infrastructure vulnerability, resilience into project planning. Preliminary results from the vulnerability assessment, phase one, are expected in 2025.

Lead By Example: Resilience at the Department of Agriculture, Conservation & Forestry

Sebago Living Shoreline Stabilization Project

DACF partnered with the Portland Water District to complete a living shoreline pilot project at Sebago Lake State Park, stabilizing a chronically eroding lakefront shoreline. The U.S. Environmental Protection Agency 319 Grant Program funded the project, which involved the construction of an engineered aggradation structure using natural materials, mainly red oak trees. Construction of this project was completed in December 2022.

Bureau of Parks and Lands

The Maine Bureau of Parks and Lands completed the design phase for waterfront infrastructure renovation at Fort Popham State Historic Site. Design improvements include the construction of a resiliency berm, a hightide dock landing, and an improved float system.

The Maine Bureau of Parks and Lands is currently in the process of procuring engineering services to design replacement waterfront infrastructure that was damaged in the January 2024 winter storms. The projects that will be designed in 2025 include:

- Eagle Island State Historic Site - Pier Replacement
- Colonial Pemaquid State Historic Site - Pier Restoration and Waterfront Infrastructure Improvements
- Fort Point State Park - Pier Replacement

Sebago Lake State Park – Living Shoreline Stabilization Pilot Project. Photo by Owen Blease.

MaineDOT has completed a Statewide Vulnerability Assessment of all state-managed transportation infrastructure assets. MaineDOT has identified 7 segments of road as particularly vulnerable to flooding during storm events and/or sea level rise.

MEMA published the new 2023 Maine State Hazard Mitigation Plan (SHMP) after receiving FEMA approval in September 2023. The 2023 SHMP presents Maine's many natural hazard risks and strategic guidance to reduce or eliminate the greatest vulnerabilities. The SHMP is updated every five years to posture the state for new climate change impacts, policy improvements, new development trends, and many other factors affecting Maine's risk landscape. The goals of this plan were expanded to address an improved understanding of climate change risks and the expansive efforts of state and federal agencies in advancing climate resilience policies. The next plan will need to be in place by September 27, 2028.

Action 9: Develop more specific guidance for agencies to integrate climate risk management into asset construction and maintenance.

Agencies are taking significant steps to incorporate sea-level rise projections and provide guidance to communities. MaineDOT, acting on behalf of the State, was awarded a $1 million grant from the U.S. Department of Commerce to develop a Maine Coastal Flood Risk Model (ME-CFRM) – a high-resolution, dynamic, and probabilistic model of current and future flood risk along the Maine coast. The model will integrate the Maine-based sea level rise projections in existing law with data about coastal storm events. Model output for part of the coast is expected to be available beginning in the fall of 2025 and for remaining areas by the end of 2026. Products from the model will be made available across state government as well as in communities and regional planning organizations across the state.

Monitoring for Climate Resilience: MDIFW

MDIFW manages approximately 140,000 acres of diverse wildlife habitat, across 71 Wildlife Management Areas (WMA) in the state, and stewardship of these lands to maintain high-quality, resilient wildlife habitat is central to the department's work. During 2023-2024 MDIFW, along with sister agencies and conservation partners, actively pursued funding for projects to restore vulnerable habitats, and increase the resilience of public lands. 2023-2024 project funding highlights include:

- $450,000 awarded to MDIFW by the U.S. Fish and Wildlife Service as part of an Inflation Reduction Act program to fund climate resilience projects in Northern Forest habitat. Funds will be used in Frye Mountain Wildlife Management Area (WMA) in Waldo County to improve aquatic habitat connectivity and infrastructure resilience by replacing and upgrading three stream crossings.
- $1.4 million awarded through the National Oceanic and Atmospheric Administration (NOAA) Coastal Zone Management Habitat Protection and Restoration program, in partnership with the Maine Coastal Program, MaineDOT, Maine Geological Survey, and local land trusts and municipalities, and MDIFW. Funds will be used to study hydrology, sea level rise impacts, and infrastructure resilience in the vicinity of Scarborough Marsh WMA and serve as a model for interagency and multi-stakeholder engagement in pursuit of multiple recommendations in Maine Won't Wait, including committing to manage for 1.5 ft of sea-level rise by 2050 and 4 ft by 2100, upgrading infrastructure, protecting and restoring natural lands, and using nature-based solutions.

A second phase of the FEMA-funded project at GOPIF will develop a tool that will assist communities and state planners in understanding climate vulnerability across the state and planning for resilient projects. This work will begin after the statewide vulnerability assessment is complete and will complement the ME-CFRM for coastal communities by providing additional guidance that addresses climate hazards such as inland flooding.

Several agencies continue to rebuild infrastructure and facilities for greater resilience. DMR has projects underway at the Boothbay Harbor facility and nearby Burnt Island to rebuild critical infrastructure following the severe winter storms of 2023 and 2024. This includes elevating the pier on Burnt Island and overhauling the electrical system at the pier in Boothbay. These projects aim to incorporate best practices from funds directed towards commercial pier and wharf resiliency. In addition, DMR is collaborating with BGS to improve fish passage and improve stream function and flood resilience at several dams owned by DMR, including Farwell and Meddybemps.

Two ongoing projects at MaineDOT seek to improve the resilience of the State's transportation infrastructure. MaineDOT has conducted a feasibility study on the little causeway and the main causeway in Deer Isle to evaluate several alternatives to improve transportation reliability and resiliency by addressing impacts from sea level rise, severe storm events, and erosion while maintaining connectivity during construction. MaineDOT has modeled various currents and flows to establish the size opening and the height of the road surface at the Scarborough, Route 1 project. Both projects are in the preliminary engineering and permitting phase.

Next Steps

Over the next two years, GOPIF, MaineDOT, MEMA and other partners will continue to assess the vulnerability of state-owned infrastructure to climate change, and to develop a climate resilience tool that state agencies and municipalities can use to incorporate vulnerability and resilience considerations into project planning. At the same time, in partnership with GOPIF, BGS will develop guidance for the consideration of climate hazards in new construction and renovation of state-owned buildings, as well as guidance for new or renewed leased spaces. During the process to develop LBE agency plans in 2025, state agencies will consider the impact of climate change on their workforce, operations, and critical public services. Finally, DAFS (Bureau of Human Resources) will work with MEMA, BGS, MECDC, MaineDOT and others to understand and assess the impact of climate change on the State's workforce.

GREEN PROCUREMENT AND WASTE REDUCTION

Lead By Example Targets

- **By 2025, state institutions will purchase at least 20% of their food and food products from local producers.**
- **By 2023, the State will set targets that lead to healthier workplaces and that reduce solid waste from state-owned facilities.**

The State continues to lead by example with environmentally preferable practices including waste reduction and buying sustainable products and supplies. To continue building on progress over the last few years, the State will embark on enhanced data collection efforts to set a waste generation baseline from which to measure the success of waste reduction and diversion activities.

Maine continues to support local food producers, strengthening its food systems, contributing to a reduction in greenhouse gases while supporting Maine communities and businesses.

Action 10: By 2025, state institutions will purchase at least 20% of their food and food products from local producers.

The State of Maine purchases food for trainings, conferences, correctional facilities, veterans' homes, psychiatric care facilities, Education in Unorganized Territories schools, and a limited number of cafeterias in state-owned office buildings. Food is purchased both directly and through vendors that operate food service facilities such as cafes.

In 2024, 29% of foods procured through state contracts were sourced from within Maine, exceeding the original goal to procure 20% local foods by 2025. Local food spending totaled $232,598 in 2024. In recognition of this achievement, and to ensure continued ambition in local food procurement, the State will update its LBE goal to be consistent with the statewide local food procurement target in *Maine Won't Wait* (2024):

By 2030, state institutions will purchase at least 30% of their food and food products from local producers.

State agencies and vendors are leading by example in procuring local foods and growing their own food:

- DAFS now includes local food provisions in all solicitations for bids on food service contracts for State-owned institutions.
- DOE's Education in the Unorganized Territory school cafeterias purchase at least 20% of their food through local vendors including fishermen, farmers, and ranchers.
- The Board of Licensure in Medicine and Board of Nursing purchase lunch meals for board meetings from a local business.

Department of Corrections: Local Food and Composting

DOC's strong local food program has been showcased in a documentary, "Seeds of Change," featured in New York Times and Portland Press Herald articles, and held up as the premier program in a nationwide report on prison food. DOC is a leader in supporting a sustainable food system, preventing and reducing waste. The prisons purchase cheese ends, run-of-the-mill grains, surplus mushrooms, meat, and eggs, chicken, and potatoes from local farms and businesses.

The correctional facility kitchens also manage over 300 acres of gardens and orchards across Maine's adult and juvenile state facilities, resulting in over 85,000 pounds of fresh food being produced.

DOC also produced over 335,000 lbs. of compost and donated over 25,000 lbs. of food grown at correctional facilities to the community in 2023.

In 2024, DOC initiated a pilot program for the construction of a rotating drum composter. This particular design was developed and tested by a university. Materials will be purchased through various vendors and the actual construction will be done by residents at the Mountain View Correctional Facility. The pilot composter will be placed in a hoop house placed on a concrete slab. Completion of this pilot project will be in 2025 with the intent of construction more composters depending on the success of the pilot project and potential grant awards.

Action 11: By 2023, the State will set targets that lead to healthier workplaces and that reduce solid waste from state-owned facilities.

As required by 38 M.R.S. §2137, state agencies in Maine recycle, at a minimum, high grade paper and corrugated paper. Returnable bottles and cans are also recycled in many locations, though other types of metal, plastic, and glass are generally not recyclable in state owned facilities. BGS is in the process of conducting a comprehensive recycling survey to assess opportunities to improve recycling.

State agencies are also required to establish and implement a waste reduction program for materials used during agency operations. DAFS is responsible for assessing the status of recycling efforts undertaken directly by the State, evaluating existing programs, and developing new programs for recycling where necessary. Since joining the Northeast Recycling Council (NERC) and Association of Plastic Recyclers' Government Demand program as a Champion in 2022, the State has committed to purchasing plastic items with recycled content each year and reporting those purchases to NERC.[21]

To support this commitment, DAFS procurement team has developed guidance to assist agencies in green procurement and exploring opportunities to shift existing commodity contracts towards more sustainable materials.

State agencies are leading by example by reducing waste and purchasing environmentally-friendly materials:

- DOE hired a Green Schools Director who supports Maine schools in tackling a wide range of sustainability projects from energy efficiency to waste reduction.
    - DOE's Education in the Unorganized Territory program has moved to a 100% electronic document format, reducing office printing and copying by 200% in addition to relying on State Surplus for recycling and equipment procurement to avoid buying new supplies.
    - DOE hosts an unofficial "swap shop" in their office spaces for staff to exchange usable goods and supplies, in addition to collecting returnable bottles for recycling.

21 View the program summary on NERC's website: https://www.nerc.org/government-recycling-demand-champions

- In 2024, DEP conducted a statewide food loss and waste assessment and is identifying next steps to tackle food waste based on the study findings and infrastructure needs to improve the recovery of surplus food generated across the state.
    - DEP also has a seasonal composting operation and facilitates reuse with a water refill station, dish washing station, and kitchenette stocked with reusable plates and cutlery. Staff voluntarily collect returnable bottles and non-redeemable recyclables to recycle outside of the office.
- DOC recycled 11,506 pounds of materials in 2024, in addition to reducing waste through their compost operation.
- MaineDOT continued to minimize single use items used at catering events.
- MDIFW updated their office recycling signage and conducted education and outreach for all staff on how to recycle correctly.
- OSPS spent $943,210.70 on purchasing 7,933 products made with recycled content in 2024.
- BGS has undertaken four adaptive building reuse and remodeling projects, greatly reducing the embodied carbon footprint of state buildings.
- DACF undertook many design and construction procurement projects in 2023 and 2024 that incorporated low-carbon building materials such as locally sourced wood and adaptive reuse of existing buildings to preserve embodied carbon.
- MaineHousing promotes recycling of paper, cardboard, and plastic in their offices, in addition to installing low-flow plumbing fixtures, digitization to reduce paper use, and making reusable cups available to staff to reduce single-use items.
- Like many state agencies, DOL and the Office of Securities maintain a practice of checking State Surplus to source office supplies, furniture, and equipment prior to purchasing anything new.
- DHHS has a robust waste reduction program that includes recycling, reuse, and waste reduction. For example, DHHS collects and stores surplus goods and furniture in order to redistribute needed supplies internally before sending them to State Surplus or purchasing new in addition to:
    - Sending printer toner cartridges to State Surplus, who, in turn, sends them for recycling.
    - Promoting returnable beverage bottle recycling with bins throughout their Augusta office building, with all money

Leading by Example: DAFS Green Procurement Wizard and Procurement Training Resources

In 2025, DAFS will launch a Procurement Wizard, which will identify and promote greener procurement options throughout the process of procuring supplies. As a first phase of this project, the Office of State Procurement Services (OSPS) created a new guidance document to assist agencies with identifying and purchasing greener products and services. The document explains the requirements under Executive Order 13, FY 19/20 (Lead By Example) and provides guidance for state agencies to reduce their environmental impact and improve public health by procuring environmentally preferable products and services. OSPS has created a Training & Guidance page to support more sustainable procurement.

going to the Maine State Employee's Combined Charitable Appeal.

- Implementing zero sort recycling for plastic bottles at Dorothea Dix Psychiatric Center and both zero sort recycling and battery recycling at Riverview Psychiatric Center.

The actions above are all examples that other state agencies may consider to make their office spaces and operations more sustainable.

Next Steps

Maine Won't Wait (2024) recommends that state government establish Lead By Example standards by 2030 that will prioritize waste prevention, extending product lifetimes through repair and refurbishment, replacing single-use disposables with reusable options, and diverting food scraps.

Over the next two years, DAFS and BGS – in partnership with other agencies – will establish data collection processes to set a baseline for waste generation in state agencies and ensure future waste reduction and diversion processes are efficient and effective.

In addition, DAFS will train staff on zero waste practices and look for ways to divert waste that can't be prevented. OSPS will continue to provide training and education on green procurement guidance and increase environmentally friendly purchasing across the State's largest commodity contracts.

Currently, state-funded institutions are evaluating different options to eliminate single-use products when durable, reusable options are available. Possibilities include reusable food service ware at cafeterias and events, water refilling stations, and working with the state surplus program to ensure maximum recovery of durable, reusable goods. State government facilities are also exploring options to divert food scraps, such as through composting.

Some other examples of a "zero-waste" approach under consideration include:

- Purchasing material made with post-consumer recycled content.
- Preventing waste from occurring in the first place.
- Planning ahead for what materials must be managed and ultimately disposed of.
- Working with vendors to assess the type and amount of these materials and look for waste reduction opportunities.
- Seeking out practical ways to reduce, reuse and/or repurpose materials such as office supplies, furniture, and more.
- Recycling as much as possible.
- Supporting local or regional businesses or non-profits that offer waste diversion services.
- Several state agencies and facilities, including Riverview Psychiatric Center, are looking to initiate composting operations while others are eager to take on additional waste reduction methods and increase green purchasing.

The next steps for waste reduction and supporting healthier workplaces will include establishing data collection practices to set a baseline for waste being generated by state agencies, along with exploring opportunities to expand recycling and training staff in zero waste practices that will help ensure agencies are making progress towards green procurement and waste reduction goals.

By 2027, the State will collect data to establish a waste generation baseline and train DAFS and agency staff in zero waste practices such as green procurement, waste reduction, recycling, and composting to increase waste diversion across state facilities.

CONCLUSION: ACCELERATING ACTION ACROSS STATE GOVERNMENT

As staff from the LBE Leadership Committee met with agency Green Teams during the preparation of this report, it became clear that agency leadership and employees are enthusiastic about Lead By Example and have already dedicated significant time and resources to achieving the State's LBE goals. However, Maine has much more work to do to meet its LBE goals. The Leadership Committee will focus on developing a statewide LBE plan by the end of 2025 that will enable the State to continuously improve operations and programs to achieve the goals set in statute and in the Governor's executive orders.

At the same time, the LBE Leadership Committee recognizes that LBE planning cannot be a top-down effort. LBE requires continued agency engagement and partnership – each target requires actions and planning at the agency level to succeed. And while leading by example can result in operational cost savings and reduced emissions, these changes require significant effort and collaboration on the part of agencies and the LBE team. Over the next year, the LBE Leadership Committee will help each agency to develop a plan that matches the size, scope, capabilities, and priorities of the agency.

Agencies continue to need support in the form of:

- Targeted planning support
- Information to distribute to employees to overcome barriers to new technologies in the workplace (e.g., EVs)
- Guidance on financing options for decarbonization projects

These resources will be the focus of the LBE initiative over the coming year.

As public entities, state agencies are entrusted with the wellbeing of Maine's resources and its people. Leading by example and other sustainability actions help public agencies be more efficient with taxpayer dollars, adapt to a changing future, be good stewards of natural resources, and support climate resilience in the workplace. Maine's agencies are commended for starting this important work and leading by example.

APPENDIX A:
STATE AGENCY LEAD BY EXAMPLE COORDINATORS

Agency	Lead By Example Coordinator	Email
DACF	Randy Charette, Deputy Commissioner	randy.charette@maine.gov
DAFS	Elaine Clark, Deputy Commissioner	elaine.clark@maine.gov
DECD	Denise Garland, Deputy Commissioner	Denise.Garland@maine.gov
DEP	Julie Churchill, Director, Office of Innovation and Assistance	julie.m.churchill@maine.gov
DHHS	Andrew Eppich, Senior Advisor	Andrew.Eppich@maine.gov
MDIFW	Corinne Michaud-LeBlanc, Climate Coordinator	Corinne.L.Michaud-LeBlanc@maine.gov
DMR	Erica Maltz, Director of Special Projects	Erica.Maltz@maine.gov
DOC	Gary LaPlante, Director of Operations	Gary.LaPlante@maine.gov
DOE	Melissa Beecher, Chief of Operations	melissa.beecher@maine.gov
DOL	Todd Cummings, Director of Facility and Property Management	todd.cummings@maine.gov
MaineDOT	Sierra Millay, Planning Specialist	Sierra.F.Millay@maine.gov
DPS	Derek Gorneau, Assistant to the Commissioner	derek.gorneau@maine.gov
DVEM	Michelle Lenihan, Deputy Commissioner	michelle.lenihan@maine.gov
MaineHousing	Jason Stonier, Operations Manager	jstonier@mainehousing.org
PFR	Joan Cohen, Commissioner	Joan.Cohen@maine.gov

APPENDIX B: BGS-LED ENERGY EFFICIENCY PROJECTS IN EXISTING BUILDINGS (2023 AND 2024)

Completed

Highlights

Ray Building

Construction was completed in 2024. The renovation included gutting of the interior, replacement of all systems, upgrade of the building envelope for improved insulation, new windows, ultra-low temperature variable refrigerant flow (VRF) HVAC system, energy recovery for ventilation air handlers, low-flow plumbing fixtures, LED lighting with occupancy sensors and environmentally friendly furniture. This project transitions the Ray Building from using natural gas for heating and cooling to using a VRF system that operates on electricity. The renovation is expected to result in an approximately 43% reduction in greenhouse gas emissions. The Ray Building houses the Maine Department of Environmental Protection.

Other Projects

10 Water Street	
Hybrid hot water system	2023
242 State Street	
Hybrid hot water system	2023
19 Union Street	
Hybrid hot water system	2024
15 Columbia Street	
Mini splits in maintenance mechanic office and storage area	2023
Hybrid hot water system	2024
Cross Office Building	
DA server room six floor Mini split system	2024
Bcc server room basement Mini split system	2024
Elevator machine room Mini split system	2024
OIT server room Liebert unit	2023
BMV - Augusta	
Mini splits in training room	2023
Crime Lab	
Mini splits in new entry and office areas	2024
Mini splits in garage	2024
Mini splits in evidence storage area	2023

State Police Barracks	
Mini splits for second floor south	2023
Mini splits for basement north	2024
Mini splits for 1st floor north	2024
Mini splits for server room	2024
Deering	
ERV system for basement	2023
Ray	
Full low ambient variable refrigerant volume system with sealed loop glycol air exchanger and hybrid hot water systems	2024
Elkins	
Mini splits for 2nd floor conference room	2023
Mini splits for 2nd floor offices	2023
Harlow	
Hybrid Hot Water System	2024
Mini splits for server rooms and mechanical space basement	2023
Pavilion	
Mini splits for server rooms and mechanical space basement	2023

Ongoing

Highlights

Cultural Building

This project consists of a total renovation of the approximately 150,000-square-foot building that houses the State Archives, State Library, and State Museum. This project involves addressing issues revealed during asbestos abatement and mechanical upgrades to accommodate new lighting, a new backup generator, and updated building systems. Other improvements to the Cultural Building intended to increase energy efficiency include addition of extra layers of spray foam insulation; replacement of the roof and of 1960s-era windows; and replacement of the existing HVAC system with a variable refrigerant flow (VRF) air-cooled system for heating and cooling. When all improvements have been completed, the Cultural Building is expected to use approximately 25% less energy than it did prior to renovation and is expected to emit nearly 48 fewer tons of carbon dioxide each year. Agencies will begin occupying the building in spring of 2025.

Department of Inland Fisheries & Wildlife Headquarters

Majority of design took place in 2023 – ’24 with construction being slated for 2025 – ’27. Includes adaptive reuse of a historic building to provide a new headquarters for the Maine Department of Inland Fisheries & Wildlife (MDIFW). The facility will include offices, conference rooms, lab spaces, and storage space for equipment and vehicles. The project, which consolidates several department functions into one location, involves renovation of the existing facility, which was originally built in 1927, and construction of a building addition. The new MDIFW Headquarters is expected to obtain at least LEED Silver certification. The all-electric facility will have at least three charging stations for electric vehicles. The building is designed to be “solar ready,” and solar panels with battery storage, and/or geothermal systems, may be incorporated in the future.

The structure will be made from cross-laminated timber, an engineered wood product that replaces energy intensive building materials such as steel and concrete. This project will also enhance opportunities for public education and recreation by providing an outdoor classroom for MDIFW-led educational programming, access to trails, and access to a stone wharf owned by the State along the Kennebec River.

Stone Building Phase II
Work includes the remediation of asbestos, restoration or replacement of windows, and installation of a ventilation system. This is a 262,000 sq. ft. complex of six connected structures. The Stone Building has approximately 800 old, leaky windows; restoration or replacement of these windows is expected to result in significant energy savings. A prior phase of work involved replacement of the roof and repair of building envelope masonry. Upon completion, the Stone Building will provide office space for state agencies previously housed in leased space in the Greater Augusta area. Energy modeling for the Stone Building will be performed once all renovations have been completed.

Office of Chief Medical Examiner
Construction began in 2024 for a new 19,000 sq. ft. facility. The main source of heat will be a hybrid gas/electric system. Other energy conversation measures include improved building envelope, LED lighting, air source heat pump for heating and cooling, sensible energy recovery which consists of heat pipes recovering energy from incoming supply air which would otherwise be wasted, airside economizers that provide free cooling when outside air conditions permit, condensing boilers provide heating hot water at higher efficiencies than standard boilers, and lastly building management system controls that allows the building mechanical, energy and plumbing systems to be adjusted automatically to optimize system and energy efficiency.

Other Projects

221 State Street	
Envelope and HVAC improvements	2027
Cross Building	
Window replacement (building envelope repointing completed in 2024)	2025
Daschlager Building	
Envelope and HVAC improvements	2025
McLean	
Envelope and HVAC improvements	2025
7 Chimney Loop	
Minisplit system for lab	2025
Maine Criminal Justice Academy	
A building Mini splits for FATS room	2025
Hybrid hot water system in A building basement	2022/2025
Mini splits for weight room D building	2023
Tyson	
Mini splits for server rooms basement and third floor	2024
Mini splits for third floor break room	2023
Mini splits for third floor conference room	2023

APPENDIX C: STATE AGENCY PUBLIC AND FLEET EV CHARGING LOCATIONS

Agency name	No. of ports	Address	Town	Status (completed or planned)	Public or fleet
BMV	2	101 Hospital St	Augusta	Completed	Public
BMV	2	396 Griffin Rd	Bangor	Completed	Public
BMV	2	19 Anthony Ave	Augusta	Completed	Public
BMV	4	23 Washington St	Calais	Planned	Public
DACF	6	280 Belfast Rd	Camden	Planned	Public
DACF	6	426 Wolfe's Neck Rd	Freeport	Planned	Public
DAFS	4	East Campus, Arsenal St (Tyson Dr.)	Augusta	Completed	Public
DAFS	6	93 Sewall St	Augusta	Completed	Public
DAFS	2	230 State St	Augusta	Completed	Public
DAFS	2	228 State St	Augusta	Completed	Public
DAFS	12	90 Blossom Ln	Augusta	Planned	Public
DAFS	12	37 Chamberlain St	Augusta	Planned	Public
DAFS	12	111 Sewall St	Augusta	Planned	Public
DEP	2	312 Canco Rd	Portland	Completed	Public
DEP	2	106 Hogan Rd, Suite 6	Bangor	Completed	Public
DOC	2	358 Main St	Thomaston	Completed	Public
DOC	4	17 Mallison Falls Rd	Windham	Completed	Public
DOC	2	883 Cushing Rd	Cushing	Completed	Public
DOC	1	1182 Dover Rd	Charleston	Completed	Public
DOC	2	64 Base Road	Machiasport	Completed	Public
DOC	1	1182 Dover Rd	Charleston	Completed	Public
DOT	2	66 Industrial Drive	Augusta	Completed	Public
DOT	2	517A Main St	Rockland	Completed	Public
DOT	2	41 Rice St	Presque Isle	Completed	Public
DOT	4	219 Hogan Rd	Bangor	Completed	Public
DOT	2	51 Pleasant Hil Rd	Scarborough	Completed	Public
DOT	2	932 U Route 2	Wilton	Completed	Public
DOT	2	10 Mountain Ave	Fairfield	Completed	Public
DOT	4	4 Center St	Augusta	Completed	Public
DOT	1	51 Pleasant Hill Rd	Scarborough	Completed	Fleet
DOT	1	66 Industrial Dr	Augusta	Completed	Fleet
DOT	1	932 US-2	Wilton	Completed	Fleet
DOT	1	219 Hogan Rd	Bangor	Completed	Fleet
DOT	1	41 Rice St	Presque Isle	Completed	Fleet
DOT	1	24 Child St	Augusta	Completed	Fleet
IF&W	1	56 Game Farm Rd	Gray	Completed	Fleet
IF&W	1	353 Water Street	Augusta	Completed	Fleet
MEARNG	2	194 Winthrop St	Augusta	Completed	Public

APPENDIX D: AUGUSTA EAST CAMPUS AND WEST CAMPUS BUILDINGS

Campus	Address	Town	kWh Meter Location
East Campus	6 Elkins Ln	AUGUSTA	Sub metered
East Campus	32 Blossom Ln	AUGUSTA	Sub metered
East Campus	4 Blossom Ln	AUGUSTA	Sub metered
East Campus	8 Blossom Ln	AUGUSTA	Sub metered
East Campus	25 Tyson Dr	AUGUSTA	Sub metered
East Campus	67 Independence Dr	AUGUSTA	Sub metered
East Campus	18 Elkins Ln	AUGUSTA	Sub metered
East Campus	17 Elkins Ln	AUGUSTA	Sub metered
East Campus	19 Elkins Ln	AUGUSTA	Sub metered
East Campus	28 Tyson Dr	AUGUSTA	Sub metered
East Campus	8 Elkins Ln	AUGUSTA	Sub metered
East Campus	10 Blossom Ln	AUGUSTA	Sub metered
East Campus	47 Independence Dr	AUGUSTA	Sub metered
East Campus	90 Blossom Ln	AUGUSTA	Sub metered
West Campus	111 Sewall St	AUGUSTA	Sub metered
West Campus	221 State St	AUGUSTA	Sub metered
West Campus	127 Sewall St	AUGUSTA	Sub metered
West Campus	24 Child St	AUGUSTA	Sub metered
West Campus	230 State St	AUGUSTA	Sub metered
West Campus	210 State St	AUGUSTA	Sub metered
West Campus	19 Union St	AUGUSTA	Sub metered
West Campus	242 State St	AUGUSTA	Sub metered
West Campus	93 Sewall St	AUGUSTA	Sub metered
West Campus	15 Columbia St	AUGUSTA	Sub metered
West Campus	192 State St	AUGUSTA	Sub metered
West Campus	103 Sewall St	AUGUSTA	Sub metered
West Campus	55 Capitol St	AUGUSTA	Sub metered
West Campus	193 State St	AUGUSTA	Sub metered
West Campus	187 State St	AUGUSTA	Sub metered
West Campus	189 State St	AUGUSTA	Sub metered
West Campus	37 Chamberlain St	AUGUSTA	Sub metered

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