

Memorandum

To: Board of Trustees
From: Michael Stoddard, Executive Director
Re: Vote to Approve Triennial Plan VI
Date: October 3, 2024

1. Proposed Motions

- a. The Board finds the Triennial Plan VI to be consistent with the statutory authority for each source of funds that will be used to implement the plan, with the state energy efficiency targets codified in the Efficiency Maine Trust Act, including the requirement to identify and pursue the maximum achievable cost-effective electricity savings, and with the best practices of program administration; and,
- b. The Board approves the Plan as it was presented to the Board on October 3, 2024, including certain updates referenced in this memorandum, and authorizes the Staff to incorporate non-substantive typographical or stylistic edits or computational corrections as may be required prior to submission to the Public Utilities Commission.

2. Process

Staff published a full draft of Triennial Plan VI (the Plan) on August 22, 2024. This followed a process comprising more than one year of analysis and discussion, including background studies, program evaluations, workshops, presentations to the Board, two stakeholder workshops and a public comment period on the summary plan.

To approve the Plan, the Board must make an affirmative vote of two-thirds of the Trustees.

Once the Plan is approved, the Staff will prepare a filing at the Public Utilities Commission which will initiate an adjudicatory proceeding. The proceeding will be open to the public. In past years, the Plan has reached a settlement, or final adjudication and approval, by the spring preceding the start of the first fiscal year of the Plan.

3. Highlights of the Plan's Deliverables

Attached to this memo is a list of highlights from the Plan's proposed investments, including the following forecasted deliverables:

- 38,000 homes heated entirely with heat pumps (including 6,500 low-income homes)
- 9,900 homes weatherized (1,500 low-income, 1,800 moderate-income, 6,600 all-income)
- 1,700 new battery systems in homes and small businesses
- 333 million tons of CO₂ reduced, annually, by the third year
- \$35 million invested in small businesses
- 137 megawatts of summer peak load reductions by 2028
- \$492 million suppression of electricity rates due to Beneficial Electrification programs

- 3.7-to-1 benefit-to-cost ratio across all programs funded through this Plan

The overall budget for the full, three-year period of the Plan is \$529.3 million. The major sources funding for the budget come from seven different grants of federal funds, the Regional Greenhouse Gas Initiative, electric and gas utilities (the “procurements”), the Forward Capacity Market at ISO-New England, and the settlement of the New England Clean Energy Connect transmission line. A cap, set by statute, on the amount of electric funding that may be collected from electric utilities may cause a reduction in the budget in the second and third year of the Plan.

4. Statutory Framework and Elements for Approval

The Efficiency Maine Trust Act (35-A MRS Chapter 97) requires that the Trust develop a Plan every three years that explains its program objectives and goals, program budget allocations, program designs and implementation strategies, and how performance will be measured and tracked.

Section 10104(4) of the Act states that the Plan must provide integrated planning, program design and implementation strategies for all programs administered by the Trust, including but not limited to the electric conservation programs under §10110, the natural gas conservation programs under §10111, the RGGI Trust Fund under §10109, the Heating Fuels Efficiency and Weatherization Fund under §10119, and any other state or federal funds or publicly directed funds accepted by or allocated to the Trust for the purposes contemplated in the Act.

Section 10104(4)(A) of the Act directs that the Plan identify the maximum achievable cost-effective (“MACE”) energy efficiency savings, as defined by rule by the Trust, and the related programs that could be implemented pursuant to §10110 and §10111 of the Act, the costs and benefits of such programs, and the basis and support for such identified costs and benefits. The recently enacted Beneficial Electrification Policy Act amends §10110, further requires the Plan to include within the calculations of MACE any energy projects and associated budget that meet the eligibility criteria for beneficial electrification measures. The Plan also must set forth the costs and benefits of programs that advance the statutory goals set out in §10104(4)(F) of the Act and incorporate performance metrics. *Id.* at §10104(4)(F) and §10120(1).

Triennial Plan VI, as represented in the draft published on August 22, 2024, together with its appendices, satisfies the requirements of the Act. It is appropriate at this time for the Board to find that the Plan is consistent with the Trust’s statutory authority for each source of funds that will be used to implement the Plan, that it will advance the State energy efficiency goals set forth in § 10104(4)(F) of the Act, and that the Plan reflects best practices of program administration under § 10104(2) of the Act.

5. Updates since publishing the draft on August 22

Since the draft plan was published on August 22, 2024, Staff has made four discrete updates associated with *Appendix O: Demand Management Program Analysis and Considerations*.

- a. In *Appendix O*, Staff has added specific language around the value of the incentive that the program plans to offer for the renewable reliability measure as follows,

“For Renewable Reliability, the Trust is planning on entering into 5-year contracts with certified aggregators. Initially, Renewable Reliability will offer \$200 per kW/year to be paid directly to the aggregator based on the amount of capacity made available during targeted peak conditions.” (p.9)

- b. These planned incentive levels flow through to updates to *Appendix B-2: Program Budget Roll-Up*, where the number of renewable reliability projects remains the same but the payment structure – i.e., pay-for-performance that is paid out across 5 years -- reduces the total program budget for incentives during the period of the Plan. This slightly lower budget will also be reflected in *Appendix A: Budget and Performance Metrics*.
- c. Updates to *Appendix O* further clarified that plug-in hybrid electric vehicles would be eligible to participate in the smart charger initiative.
- d. Finally, Staff proposes to create a standalone *Appendix O-2: Demand Management Measure Screening for Cost Effectiveness*, to be filed with the Plan, that would show the detailed calculations of the cost effectiveness methodology described in *Appendix O-1*. Staff believes this would be helpful for stakeholders and the process at the Public Utilities Commission.

Benefits

Major benefits of Triennial Plan VI (“the Plan”) include:

- Lowering overall energy bills for Maine homes and businesses;
- Implementing, for the first time, Beneficial Electrification Policy Act (BEPA) to help suppress Maine’s electricity rates over the long term;
- Expanding initiatives to help manage costs of electricity by managing time of use for electronic equipment and avoiding periods of peak demand.
- Significantly advancing carbon reduction targets (set in Maine law) to mitigate, and improve resilience to, the harmful impacts of climate change;
- Putting Maine on a path to energy independence and insulating Maine consumers from volatility of global energy prices;
- Promoting investment in upgrades to Maine’s building sector and transportation equipment.

Key metrics forecasted to be delivered by the Plan:

- 38,000 homes heated entirely with heat pumps (including 6,500 low-income homes)
- 9,900 homes weatherized (1,500 low-income, 1,800 moderate-income, 6,600 all-income)
- 1,700 new battery systems in homes and small businesses
- 333 million tons of CO2 reduced, annually, by the third year
- \$35 million invested in small businesses
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- \$492 million suppression of electricity rates due to Beneficial Electrification programs
- 3.7-to-1 benefit-to-cost ratio averaged across the programs funded through this Plan

Program Highlights

- ***Sustained Commitment to Heat Pumps***
 - The Plan builds momentum for an economy-wide transition to clean, efficient heat pumps for space heating and cooling, and hot water.
- ***Expanded focus on low-income multifamily***
 - The Trust will leverage the majority of approximately \$70 million federal funding for Home Energy Rebates from the Inflation Reduction Act (IRA) to support beneficial electrification of low-income multifamily buildings.
- ***Commitment to Weatherization***
 - Thanks in large part to an infusion of funds from the American Rescue Plan Act (ARPA) through the Maine Jobs and Recovery Plan, the Trust significantly increased residential weatherization activity from FY2023-FY2025. The Plan for FY2026-FY2028 shows a commitment to continue this pace (3,300 homes/year) by leveraging RGGI funds. This will, in combination with initiatives of MaineHousing, keep Maine on track to meet the 2030 Maine Climate Council goals for numbers of homes, including low-income homes, weatherized.
- ***Expanded Efficiency Maine Green Bank (EMGB)***
 - Beginning in FY2025, EMGB will add approximately \$15 million to its capitalization using a grant from the US Environmental Protection Agency's (EPA's) Greenhouse Gas Reduction Fund.
 - EMGB will employ a new, user-friendly online dashboard to process loan applications. It is actively expanding its administrative capacity, increasing the breadth of its finance initiatives, and looking to launch new finance initiatives.
- ***Expanded Demand Management Program***
 - The Trust will launch a new offering to incentivize customers purchasing home reliability solutions to invest in home batteries (vs. fossil fuel-fired generators) and use them to reduce system peaks.
 - The Trust will offer incentives for new home EV chargers that are pre-set to shift charging out of peak demand periods, which will decrease costs for all Maine ratepayers. Customers may opt out of participating on any day, but the charger will revert to off peak charging the next day.
 - The Trust will continue to grow the Demand Response Initiative and large battery offering.
- ***Targeted Assistance for the Electric Vehicle Transition***
 - Triennial Plan VI envisions continued build out of a network of EV charging infrastructure, following the Maine DOT's deployment plan, to facilitate Maine's transition to EVs.
 - Targeted subsidies will be offered for consumer segments facing the most significant barriers and/or resistance to purchasing EVs, which will be coupled with compensation for managed ("smart") charging to minimize strain on the grid.

Summary of Measures Offered, by Program

Program	Sectors Served	Measures Offered
Commercial & Industrial Custom Program	<ul style="list-style-type: none"> • C&I • Multifamily • Institutions and Governmental Entities 	Custom energy efficiency, beneficial electrification, distributed generation, and demand management projects (e.g., steam turbines, heat recovery, refrigeration upgrades, process steam reduction, controls)
Commercial & Industrial Prescriptive Initiatives	<ul style="list-style-type: none"> • C&I • Small Business • Multifamily • Institutions and Governmental Entities 	<ul style="list-style-type: none"> • HVAC systems (including heat pump technology) • Heat pump water heaters • Building envelope improvements (weatherization) • Lighting • Sector-specific solutions (e.g., compressed air systems, refrigeration, water cooler timers)
Retail and Distributor Initiatives	All	<ul style="list-style-type: none"> • Heat pump water heaters • Clothes washers • Electronically commutated motor (ECM) circulator pumps
Home Energy Savings Program	<ul style="list-style-type: none"> • Multifamily • Residential • Low- and Moderate-Income Households 	<ul style="list-style-type: none"> • Building envelope improvements (weatherization, energy assessments) • Heat pumps designed to meet heating needs of the entire home (air-source, geothermal) • Biomass boilers and furnaces
Income-Eligible Home Programs	<ul style="list-style-type: none"> • Multifamily • Low- and Moderate-Income Households 	<ul style="list-style-type: none"> • Building envelope improvements (weatherization) • Heat pumps designed to meet heating needs of the entire home (air-source, geothermal) • Supplemental heat pumps • DIY (Do It Yourself) kits with low-flow faucet aerators and low-flow showerheads with thermostatic valves
Electric Vehicle Initiatives	All	<ul style="list-style-type: none"> • Light-duty vehicles (battery EVs and plug-in hybrid EVs for income-eligible participants) • Medium- & heavy-duty EVs • Public EV charging infrastructure
Demand Management Program	All	<ul style="list-style-type: none"> • Demand response • Distributed energy resources (managed EV charging, home smart chargers, small residential/commercial batteries) • Large commercial batteries
Thermal Energy Investment Program	<ul style="list-style-type: none"> • C&I • Small Business • Multifamily • Institutions and Governmental Entities 	<ul style="list-style-type: none"> • Thermal energy-derived projects (i.e., projects that produce thermal renewable energy credits [TRECs], such as boilers using wood or biofuels derived from wood).

Financial Highlights of the Plan

- Total budget for Triennial Plan VI = \$529.3 million if fully funded
 - Major sources of funding include:
 - Federal Funds, including American Rescue Plan Act (ARPA) funds, Inflation Reduction Act (IRA) Home Energy Rebates funds, US Department of Energy - Energy Improvements in Rural or Remote Areas grant, IRA Climate Pollution Reduction Grant (CPRG) funds, IRA Greenhouse Gas Reduction Fund (GGRF), National Electric Vehicle Infrastructure (NEVI) Program Funds, and Charging and Fueling Infrastructure (CFI) grant funds
 - Regional Greenhouse Gas Initiative (RGGI) revenues
 - Electric Efficiency Procurement
 - Natural Gas Efficiency Procurement
 - Forward Capacity Market (FCM) revenues
 - New England Clean Energy Connect (NECEC) Settlement
- Electric MACE budget = \$336 million if fully funded
 - FY2026 = \$95.3 million, FY2027 = \$107.8 million, FY 2028 = \$132.9 million
 - These budgets may be reduced to the extent they are constrained by the statutory cap on the procurement of the Trust's electric programs.
 - Statute places a cap on the portion of the budget that is funded through the electric procurement: the annual electric procurement from the utilities cannot exceed 4% of retail electricity sales in Maine.
 - The Plan identifies a MACE budget that may exceed the cap in FY2026 and likely exceeds the cap in FY2027 and FY2028. Over the course of the Plan, the Trust will work with stakeholders and the Board to develop strategies to address this funding gap. Options could include:
 - Securing new offsetting funds (e.g., additional federal grants, additional RGGI allocations);
 - Work with policymakers to revisit the level of the cap;
 - Scale back incentives and/or program activity.
- The Plan has identified a maximum potential to suppress electricity rates by up to \$492 million over the lifetime of beneficial electrification measures that could be installed if the budgets are fully funded. After accounting for the cost of running the programs to achieve that result, there will be a net suppression effect on rates of \$258 million over that period.

Notable Changes from Triennial Plan V

- ***Beneficial Electrification Policy Act (LD 1724, 2023)***
 - Requires calculation of electric MACE (maximum achievable cost-effective) energy efficiency opportunity to include all beneficial electrification measures that are cost-effective and that reliably reduce electricity rates over the life of the measure.
 - Beneficial electrification measures that pass these criteria are eligible to be funded by the Electric Efficiency Procurement (i.e., electric ratepayers). This has a considerable impact on the electric budget (see Financial Highlights of the Plan).

- Measures that meet the criteria for funding as “Beneficial electrification” in this Plan are: residential whole-home heat pumps, multifamily and commercial whole-building/zone heat pumps, rooftop unit heat pumps, commercial heat pump water heaters, electric vehicles paired with ‘smart charging’. Electrification measures that do not meet the criteria for “beneficial electrification” (e.g., medium and heavy duty EVs, certain heat pump applications) may be eligible for other funding under the Plan where funding is available.
- The Trust has used new information to configure an EV incentive that will effectively lift the market and meet beneficial electrification requirements.
- ***Significantly diminished lighting opportunity***
 - The Trust discontinued incentives for screw-in LED bulbs in FY2023 when federal regulations phased out incandescent and halogen bulbs, making LED bulbs the standard for general service lamps.
- ***Cost effective natural gas efficiency opportunity***
 - In TPVI, the Trust finds there is renewed cost-effective opportunity to achieve natural gas savings through a limited number of measures and proposes funding incentives for residential weatherization and C&I Custom Program projects. Overall, however, natural gas efficiency opportunity is considerably lower than in prior plans.