Beneficial Electrification Planning Report

Fiscal Years 2026 – 2028

STAFF REPORT OF THE EFFICIENCY MAINE TRUST

Submitted to the Joint Standing Committee on
Energy, Utilities and Technology of the Maine State Legislature

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1. Introduction

In March 2024, the Legislature passed L.D. 589: *An Act to Ensure That the Maine Electric Grid Provides Additional Benefits to Maine Ratepayers*.[1] Pursuant to Section 4 of L.D. 589:

> By February 1, 2025, the trust shall provide a written update on its beneficial electrification planning as well as any recommendations, which may include proposed legislation, to improve its planning activities or to advance beneficial electrification, as defined in the Maine Revised Statutes, Title 35-A, section 3802, subsection 1, and siting of beneficial load, as defined in Title 35-A, section 3802, subsection 1-A, to the joint standing committee of the Legislature having jurisdiction over energy matters. The committee may report out a bill related to beneficial electrification or the trust's recommendations to the 132nd Legislature in 2025.

In this report, the Efficiency Maine Trust (the Trust) provides the required update on its beneficial electrification planning as of January 31, 2025. The Report focuses on the Trust's Beneficial Electrification Plan, which aims to implement a comprehensive program to promote the installation of certain types and applications of heat pumps and electric vehicles (EVs) that meet the criteria of Maine's Beneficial Electrification Policy Act. The distinguishing feature of the specific measures described by the Beneficial Electrification Plan is that they will be eligible for funding from the Electric Efficiency Procurement remitted by Maine's electric utilities to the Trust as part of the Trust's broader, three-year strategic plan called the "triennial plan". Eligibility for the Electric Efficiency Procurement funding is determined by establishing that the measure meets the statutory definition of "beneficial electrification," is cost effective, and will reliably reduce electricity rates over the life of the measure.

Investment in qualifying beneficial electrification measures suppresses the rates that electric utilities charge to recover their fixed costs in the transmission and distribution system. Qualifying beneficial electrification measures accomplish this rate suppression by distributing those fixed costs across an increased volume of electricity sales without adding to the peak loads that trigger the need to build new infrastructure.

Full implementation of the Beneficial Electrification Plan will achieve three very important objectives of Maine policy. First, in an era when electricity rates have been steadily climbing and frustrating electricity customers, implementation of this plan will suppress electricity rates across the lifetime of the measures installed. Second, the plan will reduce heating costs and transportation costs for Maine's homes and businesses. Third, this plan will significantly improve Maine's independence from imported heating and transportation fuels on its path to meeting carbon pollution reduction goals.

2. Policy Framework and Planning Process

a. State Legislation

In 2023, the Maine Legislature enacted L.D. 1724, *An Act to Enact the Beneficial Electrification Policy Act* (BEPA). BEPA introduced several amendments to the statute governing the Trust's activities. These

[1] Public Law, Chapter 553, 131st Maine Legislature, Second Regular Session, L.D. 589, An Act to Ensure That the Maine Electric Grid Provides Additional Benefits to Maine Ratepayers.

amendments clarify the Trust's obligations for planning and implementing programs to advance Maine's policy on beneficial electrification.[2]

BEPA requires that, when developing budgets for the Trust's Triennial Plan (and updates to that plan), determinations of maximum achievable cost-effective (MACE) electric efficiency opportunity shall: "Include all beneficial electrification measures that are cost-effective and reliably reduce electricity rates over the life of the measures."[3] Further, the Act requires the consideration of all net energy costs in evaluation of the cost-effectiveness of beneficial electrification measures, including savings associated with the avoided use of a fossil fuel.[4]

In 2024, the Legislature amended BEPA, requiring this update report and establishing additional requirements of the Beneficial Electrification Plan with the enactment of L.D. 589 – *An Act to Ensure that the Maine Grid Provides Additional Benefits to Maine Ratepayers*. L.D. 589 introduces a concept of "Beneficial Load" complementary to the policy of beneficial electrification and directs the Trust to consider incentivizing such load from commercial and industrial customers. The legislation also directs the Trust to consider concurrent planning efforts related to the future of Maine's grid.

b. Trust Rulemaking

Beginning in late 2023, the Trust conducted a rulemaking to update its Chapter 3 rule to align with requirements of the BEPA. A public hearing on proposed amendments to the rule was held January 16, 2024, and written comments were accepted through January 26, 2024. The amended rule was adopted by the Trust board on February 28, 2024, approved by the Attorney General's office on March 15, 2024, and took effect March 26, 2024. Prior to the initiation of this formal rulemaking, the Trust also engaged an outside consultant to review regulations in other jurisdictions governing funding for beneficial electrification measures. It also discussed a proposed analytical approach with relevant stakeholders and conducted a preliminary analysis of how various beneficial electrification measures would stack up against the criteria of "reliably reduc[ing] electricity rates over the life of the measure."

As part of its statutorily prescribed 2024 Annual Update to the Maine Public Utilities Commission (PUC), on March 1, 2024 the Trust filed a request for a significant change to the approved budgets of Triennial Plan V, then in effect, to reflect the costs and deliverables of an "Interim Beneficial Electrification Plan" (Interim Plan). To develop this Interim Plan, the Trust applied the analytical approach adopted in its Chapter 3 rule. The PUC approved the Trust's request on May 29, 2024.

[2] Maine law defines beneficial electrification as follows: "'Beneficial electrification' means electrification of a technology or process that results in reduction in the use of a fossil fuel, including electrification of a technology or process that would otherwise require energy from a fossil fuel, and that provides a benefit to a utility, a ratepayer or the environment, without causing harm to utilities, ratepayers or the environment, by improving the efficiency of the electricity grid or reducing consumer costs or emissions, including carbon emissions" (35-A M.R.S.A. § 10102(3-A)).

[3] 35-A M.R.S.A. § 10110(4-A)(D).

[4] *Ibid.*

c. Beneficial Load

With the adoption of L.D. 589, the Legislature amended the Beneficial Electrification Policy Act to require that the Trust "Consider incentivizing the appropriate placement of and promoting commercial or industrial beneficial load."[5] The statute says that "beneficial load" means electric load that:

- Increases load that is consistent with the principles of beneficial electrification;
- Takes advantage of excess electrical capacity within the grid while avoiding the need for significant investment in, or expenditures for, additional grid infrastructure; or
- Is used to reduce peak demand or shift the demand to lower cost time periods.[6]

Based on this definition, the Trust observes that in its current programming in Triennial Plan V, it is already incentivizing and promoting beneficial load through three channels. First, the Trust's Commercial and Industrial Custom Program has been incentivizing measures that convert end-uses from fossil fuel to more efficient electric equipment. Second, the Trust's Demand Management Program is promoting large batteries, offering incentives to customers to reduce peak demand by shifting their use to a lower cost time period. Third, in the event analysis by the Nonwires Alternative Coordinator indicates potential cost-effective non-wires alternatives are available to avoid or defer proposed new investments in grid infrastructure (such as was recently proposed but subsequently withdrawn for Central Maine Power [CMP] circuits in the Brunswick area), the Trust has been working with consumers to develop such alternative resources.

d. Stakeholder Input

On April 12, 2024, the Trust hosted a stakeholder workshop in which the Trust presented an initial overview of the Beneficial Electrification Plan for Triennial Plan VI. During the workshop the Trust recapped the process and input received on the Plan, described progress toward key state goals, and shared preliminary budgets for public comment and questions.

The Trust has been meeting regularly with the Office of the Public Advocate, the Non-Wires Alternative Coordinator, CMP and Versant Power, and has introduced the elements of the Beneficial Electrification Plan during these meetings. The Trust also has participated in the comprehensive energy planning process of the Governor's Energy Office, during which it has provided updates and data on the Trust's planning around beneficial electrification.

e. Interaction with the Commission's proceeding on Integrated Grid Planning

The Commission opened a docket (Dkt. No. 2022-00322) in 2022, pursuant to a legislative directive, to institute an integrated approach to grid planning. The Trust has been an active participant throughout the period of the docket. In developing this Beneficial Electrification Plan, the Trust has given consideration to the data, forecasts, and order(s) issued in that proceeding.

[5] 35-A MRSA §3803(2)(A)(2).
[6] 35-A MRSA §3802(1-A).

3. Framework for analyzing eligibility of measures to be funded through the Electric Efficiency Procurement

As previously described, the BEPA requires that the determination of MACE electric efficiency include only those beneficial electrification measures that are cost-effective *and* that reliably reduce electricity rates over the life of the measure.

To assess the cost-effectiveness of each measure, the Trust relied upon its primary cost test (as described in Section 4 – Identifying Cost-Effective Opportunity in this report). As required by BEPA for beneficial electrification measures, this analysis considered all net energy costs associated with the measure, including savings associated with the avoided use of fossil fuels.

To assess whether a measure reliably reduces rates over the life of the measure, the Trust relied on the analytical approach established in Chapter 3 of the Trust's rules. This analysis considers the net present value of only those revenues and costs collected through the utilities' T&D rates that are attributable to the measure. Revenues and costs that were considered include:

- **Changes in utility revenue from incremental electricity sales attributable to the measure**
  To determine this value, the Trust calculates the product of the incremental load from annual consumption of the incentivized equipment (in kWh) and the T&D delivery rate ($/kWh) applied to that incremental load. Annual consumption figures are drawn from the Trust's Technical Reference Manuals (TRMs), measured program data, studies, and relevant analyses conducted by program administrators in other states.

  The Trust calculated a statewide average T&D delivery rate for both residential and commercial customers using weighted averages of rates effective August 1, 2024 for Central Maine Power and July 1, 2024 for Versant Power. Residential rates are averaged from the utilities' default residential rates. Commercial rates are averaged from the utilities' volumetric rates for smaller commercial customers. The calculation includes no rate escalator. Were the price of T&D delivery to increase over the course of the life of each measure, the Trust's choice to use rates currently in effect will constitute a conservative approach to assessing the change in the utilities' revenues attributable to the measures.

- **Changes in utility costs resulting from the marginal effect of the measure on T&D system costs**
  Consistent with the methodologies and assumptions (M&As) approved by the Commission for Triennial Plan V and with the requirements of Chapter 3 of the Trust's rules, the Trust calculated the marginal impact of each measure on T&D system costs by leveraging values for avoided transmission and distribution. Summer peak impacts (kW) of each measure are drawn from the Trust's TRMs and from Trust analysis and modeling. The Trust's analysis shows that winter peaks are not currently driving costs and as a result did not consider winter peak impacts in this analysis and will update its approach at such time as the grid approaches conditions where winter peak drives T&D system needs.

- **The costs of the financial incentive offered to the customer and the costs to administer the incentive program**
  To determine the costs of incentives for each measure, the Trust calculated a representative average incentive amount based on past program activity. For the purposes of this analysis, the Trust assumes that the full incentive amount is included in budgets from the Electric Efficiency Procurement collected from ratepayers (but excluded any additional incentives that might flow to the customer from sources other than the Electric Efficiency Procurement). In addition to the cost of incentives, the Trust included a cost adder to each measure to account for the cost of program administration and delivery.

The net present value of the changes in T&D costs and revenues attributable to each measure are arrived at by applying the Trust's Board-approved discount rate for FY 2025. Where the subtraction of the discounted incremental costs from discounted incremental revenues produces a figure larger than zero, the measure is found to "reliably reduce electricity rates over the life of the measure."

Only those measures that are found both to be cost-effective and to reliably reduce rates over the life of the measure are included in determinations of MACE opportunity for beneficial electrification.

4. Analysis of measures to be included in the Beneficial Electrification Plan

As discussed above, to establish that a measure must be included in its Beneficial Electrification Plan, the Trust looks at whether the measure passes the Trust's primary benefit-cost test and the screen for reliable reduction in rates. What follows is a discussion of that process and the key findings as applied to several categories of measures that were reviewed by the Trust. For measures that pass the primary benefit-cost test there is also a discussion of the drivers of the results of the reliable reduction in rates screen.

The Trust found that, as of the fall of 2024, the following beneficial electrification measures meet the criteria for funding through the Electric Efficiency Procurement:

- Whole home heat pump systems installed in single family homes, duplexes, and condominiums;
- Whole building or whole zone heat pump systems, including rooftop unit heat pumps, installed in commercial buildings and in multifamily buildings of 3 or more dwelling units;
- Certain commercial applications of heat pump water heaters , including in multifamily buildings;
- Sales of battery electric and plug-in hybrid electric vehicles when bundled with "smart charging", where limited to low- and moderate-income households, commercial customers, governments and nonprofit organizations.

As explained below, certain measures that achieve a shift from using fossil fuels to electricity are, nonetheless, <u>not</u> candidates for inclusion in the Beneficial Electrification Plan using funds from the Electricity Efficiency Procurement. This does not mean, however, that such measures, where they are cost effective, could not be eligible for programs that have access to other sources of funding. The Trust will continue to track the cost-effectiveness of these measures as their prices and performance evolve,

and will continue to match up promising measures with available funding consistent with the priorities of the statute, the Triennial Plan, and the directives of the Board.

a. Heat pumps in single family homes, duplexes, and condos

Heat pumps configured to meet at least 80% of the entire heating load of single-family homes, duplexes, and condos for low-, moderate- and any-income customers were found to be cost effective and passed the screen for reducing rates.

- **Incentive:** For each income category the Trust offers an incentive based on a percentage of the total project cost, up to a maximum dollar amount (a "cap"). When determining if the measure will reliably reduce rates, the Trust applies the incentive levels based on actual program averages experienced in FY2024. In each income category, the average incentive is based on the percentage of project cost and not limited by the cap in aggregate.
- **Increase in kWh usage:** To calculate the increase in annual kWh for each income category, the Trust starts with the average annual heating load for each category. The annual kWh increase is calculated using this annual heating load with the Trust's heat pump model.
- **Summer Peak kW Impact:** There is a slight summer peak kW increase associated with this measure. The number of customers adding new cooling is partially offset by the number of customers replacing inefficient air conditioners. The Trust made this determination based on its most recent evaluation of heat pumps installed through the Trust's Home Energy Savings Program.
- **Lifetime:** The lifetime of a heat pump is 18 years.

b. Heat pumps in multifamily dwelling units

Heat pumps used in multifamily dwellings are offered through the Trust's program serving commercial customers ("CIPI"). The heat pump systems are configured to meet the entire heating load of multifamily dwelling units, and were found to be cost effective and pass the screen for reducing rates.

- **Incentive:** The incentive assumed in the analysis of rate reductions was based on the rebate offered by the CIPI program in FY2025.
- **Increase in kWh usage:** Usage is calibrated for the heating load found in the evaluation of the CIPI heat pumps in multi-family dwelling units applied to the same heat pump model discussed above, noting that multi-family units have a relatively low heating demand. This is due in part to the fact that they tend to have fewer exterior walls and the heat loss of one unit often results in helping to heat another.
- **Summer Peak kW Impact:** The baseline for multi-family dwelling units includes a higher incidence of inefficient air conditioning. As a result, installation of heat pumps in multi-family buildings achieves higher savings on summer peak than in single-family homes, duplexes, and condos.
- **Lifetime:** The lifetime of a heat pump is 18 years.

c. Heat pumps in select commercial settings

The Trust also analyzed the impact of installing heat pumps to heat entire buildings, or entire zones, in select commercial settings. These select settings include, but are not limited to,

commercial spaces used for offices, retail, and lodging. In these select settings, heat pumps were found to be both cost effective and passed the screen for reducing rates.

- **Incentive:** The analysis assumed an incentive level based on the rebate being offered by the CIPI program in FY2025.
- **Increase in kWh Impact:** The increased electricity usage is calibrated for the heating load found in the evaluation of the CIPI heat pumps in commercial settings applied to the Trust's heat pump model discussed above. The heating loads for this diverse category were considerably higher than multifamily units.
- **Summer Peak kW Savings:** The cooling load for commercial spaces is considerably higher than in any residential spaces, but is more frequently offset by prior inefficient cooling.
- **Lifetime:** The lifetime of a heat pump is 18 years.

d. Electric vehicles

The Trust screened four different permutations of EV measures: battery electric vehicles (BEVs) and plug in hybrid vehicles (PHEVs); paired with and without a Smart Charger from the Demand Management Program. All the permutations are cost effective, but only the EVs that are purchased (not leased) and bundled with a Smart Charger were found by the Trust's analysis to reliably reduce rates.

- . As the market shifts, the program will focus on low- and moderate-income Mainers, nonprofits, municipalities, school districts, and certain commercial customers. These are customer segments the Trust finds are either less likely to benefit from a tax credit or for whom any price differential between a battery EV or plug-in hybrid EV and a conventional vehicle remains a significant barrier for EV acquisition.
- **Incentive:** The Trust assumes a reduced incentive level compared to what has been offered in recent years. This is necessary to keep the program costs low enough to satisfy the requirement of rate reduction. The reduced incentive also reflects the fact that incremental costs are declining for BEVs generally, and in particular for pre-owned or "used" BEVs, while availability of lower-cost and used models is improving.
- **Increase in kWh usage:** The impact of EVs on the volume of electricity consumption is based on average annual vehicle miles traveled in Maine of 11,895, assuming 36 kWh per 100 miles for PHEVs and 29 kWh per 100 miles for BEVs.
- **Summer Peak kW Impact:** The Trust's analysis shows the impact of charging on summer peak impact of 0.72 kW when that charging is "unmanaged." At this level, the costs incurred by charging outweigh the price suppression of the excess kWh consumption from an EV. However, if we assume that the EV is charged using a Smart Charger, pre-programmed to shift charging out of the peak period and installed at a home or place of business, the impacts on summer peak demand are significantly reduced.
- **Lifetime:** The full lifetime of a new vehicle purchase is 14 years. However, the Trust assumes that an EV has an 11 year lifetime for purposes of its analysis of rate reduction. The Trust may implement program rules to limit the age of vehicles used eligible for the rebate, ensuring sufficient measure life remains to reliably reduce rates. Therefore, the Trust assumed an average lifetime of 11 years, similar to that of a used vehicle coming off of a 3-year lease.

e. Heat pump water heaters in commercial applications

Commercial-grade Heat Pump Water Heaters (both 80 and 120+ gallon) offered through CIPI for commercial and multifamily spaces can be cost effective and reliably reduce rates when those applications are screened for site specific conditions.

- **Incentive:** The Trust assumed that the incentive level was the same as the rebate offered by the CIPI program in FY2025.
- **Increase in kWh usage:** The kWh increase is based on specific high use scenarios that the CIPI team will screen for.
- **Summer Peak kW Impact:** There is an increase in the on-peak kW.
- **Lifetime:** The lifetime of a commercial heat pump water heater is 15 years.

f. Rooftop unit heat pumps

Rooftop unit (RTU) heat pumps offered through CIPI for commercial and multifamily spaces are cost effective and reliably reduce rates when those applications are screened for site specific conditions ensuring eligibility.

- **Incentive:** The Trust assumed an incentive level that is the same as the rebate offered by the CIPI program in FY2025.
- **Increase in kWh usage:** The kWh increase is based on modeled use.
- **Summer Peak kW Impact:** The baseline for this system is an inefficient air conditioning unit, compared to which the RTU performs favorably.
- **Lifetime:** The lifetime of a RTU heat pump is 20 years.

g. Variable refrigerant flow systems

Variable refrigerant flow (VRF) systems are large heat pump systems with complicated valving designed for larger commercial applications. These systems are cost effective, but do not currently satisfy the requirement to reliably reduce rates due to the size of the incentive that is needed to consistently motivate customers. Thus, VRFs are excluded from the Beneficial Electrification Plan. They are still eligible through the Trust's Triennial Plan but the incentives are paid for by a different source of funds.

h. Electric lawn equipment

The Trust assessed electric lawn equipment for cost effectiveness and their potential to reliably reduce electricity rates. The following measures were considered: residential push mowers, residential riding mowers, commercial riding mowers, and commercial leaf blowers.

If the Trust were to apply very favorable assumptions on cost and operating hours, it is conceivable that each of the lawn equipment measures, except for residential riding mowers, could meet the cost effectiveness test. However, none of the electric lawn equipment measures that were analyzed passed the test for reducing rates. In analyzing these measures, the Trust employed the following assumptions:

- **Incentive:** Incentive levels were based on rebates observed in other jurisdictions, including the Xcel Energy program (Minnesota) and Mass Save program (Massachusetts).

- **Increase in kWh usage:** The kWh increase is based on information from technical reference manuals (TRMs) from Minnesota and Vermont.
- **Summer Peak kW Impact:** For residential lawn equipment, the Trust could not find peak contribution information. Therefore, the Trust assumed constant use of annual kWh divided into a 6-month mowing season. For commercial measures, the Trust applied information from the Illinois and Vermont TRMs.
- **Lifetime:** Estimated lifetime assumptions are based on information in the TRMs from Minnesota, Vermont, and Illinois.

The usage of residential lawn mowers is generally predictable at around 26 hours/year, assuming one hour per week for a six-month mowing season. Residential push mowers are cost-effective under the assumption that most program participants would have purchased a new gasoline mower in a counterfactual scenario. Residential riding mowers, however, are not cost-effective, even under the most favorable assumption of $800 incremental cost. Neither measure screened as reliably reducing rates due to low usage in residential applications.

There is considerable variability in the cost and usage of commercial-grade lawn equipment. In the lost opportunity scenario, the incremental cost of riding mowers over gasoline mowers ranges from $1,500[7] to $17,000.[8] In the retrofit scenario, the measure costs (full cost of the electric mower) are $5,000 to $35,000. For leaf blowers, incremental cost is estimated at $300 and retrofit at $570.[9] In all cases, these estimates exclude the need to purchase additional battery packs at $100 to $300 each to get a commercial crew through its workday so they don't have to wait to recharge. These extra batteries can add thousands of dollars to the measure cost for larger equipment. To assess cost-effectiveness of commercial riding mowers, the Trust assumed 875 annual hours of use,[10] peak impact of 1.023 kW and measure life of 6 years.[11] For leaf blowers, the Trust assumed 282 annual hours of use, peak impact of 1.086 kW, and measure life of 5 years.[12]

Under the lowest cost assumptions, commercial riding mowers are cost effective, but under higher cost assumptions, they do not pass the primary cost test. Commercial leaf blowers are cost-effective; however, the need to purchase additional batteries to get a commercial crew through its workday can eliminate the cost-effectiveness for both leaf blowers and low-cost riding mowers.

Regardless of the measures' cost-effectiveness, they do not pass the screen for reliably reducing rates. Commercial riding mowers do not reliably reduce rates due to their estimated impact on summer peak. Commercial leaf blowers do not reliably reduce rates both because they consume minimal kWh from the grid and because they incur some costs associated with impact on summer peak.

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[7] Electric Lawn Mowers. (22 Aug, 2022). SEDAC (illinois.edu)
[8] Prospect of ban on gas-powered lawn equipment draws pushback in South Portland
[9] Vermont Act 56 Tier III Technical Advisory Group. 2022 Annual Report.
[10] Vermont Act 56 Tier III Technical Advisory Group. 2019 Annual Report.
[11] 2024 Illinois Statewide Technical Reference Manual for Energy Efficiency Version 12.0 (22 Sept. 2023).
[12] Vermont Act 56 Tier III Technical Advisory Group

i. Electric bikes

The Trust examined the cost effectiveness and potential for rate reduction of electric bicycles (e-bikes). To date, the available data of the best quality comes from an e-bike pilot in Vermont[13] and the Vermont TRM. Electric bicycles are not-cost-effective and do not reliably reduce rates. To reach these findings, the Trust relied on the following assumptions:

- **Incentive:** The amount of the incentive assumed was based on a legacy rebate offered by the City of South Portland.
- **Increase in kWh usage:** The kWh increase is based on both displaced functional driving miles, as well as recreational miles and the standby power of the charger used in the Vermont report.
- **Summer Peak kW Impact:** Because the Vermont pilot indicated that most load came from standby power of the charger, the Trust assumed the charger was plugged in across all hours of a year.
- **Lifetime:** The lifetime of an e-bike is 8 years.

On March 27, 2024, the Trust announced awards for a request for proposals (RFP) for a pilot of electric bicycles. The Trust will work with local housing authorities to collect Maine-specific data on the usage of the e-bikes for low-income residents. Upon conclusion of the pilot, the Trust will reassess the cost effectiveness and rate reduction of e-bikes.

5. Conclusion

Table 1 below shows the rate suppressive effect of the beneficial electrification measures that meet the criteria for funding through the Electric Efficiency Procurement.

Table 1: Rate Suppressive Effect of Eligible Beneficial Electrification Measures

Measure	Assumed Efficiency Maine Incentive	Gross Rate Suppression
Whole Home Heat Pump (Any Income)	$3,500	$11,470
Whole Home Heat Pump (Moderate Income)	$5,000	$10,100
Whole Home Heat Pump (Low Income)	$6,700	$9,485
Whole Building/Zone Heat Pump (Commercial)	$1,732	$7,614
Whole Building/Zone Heat Pump (Multifamily)	$4,406	$5,861
Battery Electric Vehicle (LMI and Commercial)	$2,000	$3,007
Plug-in Hybrid Electric Vehicle (LMI and Commercial)	$1,000	$2,119

As this table shows, Maine faces a significant opportunity to suppress transmission and distribution rates by promoting certain beneficial electrification measures. The Beneficial Electrification Plan for fiscal years 2026 – 2028 has been integrated into the Trust's triennial plan, subjected to a public stakeholder

[13] Efficiency Vermont. (8 Mar, 2018). Electric Bikes: Survey and Energy Efficiency Analysis: DSS Tech Demo Report: 000-053.

process, approved by the Board of Trustees and filed with the Public Utilities Commission. If successfully implemented, the Beneficial Electrification Plan will deliver sustained rate relief to all of Maine's electricity consumers, reduce overall heating and transportation costs, and enhance Maine's energy independence.

The Trust is only six months into implementing programs funded under the authority of the Beneficial Electrification Policy Act. Its first full, three-year plan developed under this authority will not begin until July 1, 2025. The Trust is gaining new insights with each passing month about the costs and benefits of individual beneficial electrification measures and about the challenges and opportunities of running the programs that promote those measures. Notwithstanding this limited experience, the Trust has begun to observe some internal tension across certain provisions of the Maine statute as it relates to the Trust's electric programs. Whereas many of the traditional statutory directives for energy efficiency and conservation programs are premised on *reducing* electricity consumption to lower individual energy costs, a key benefit of beneficial electrification -- reducing rates for all ratepayers -- is premised on *increasing* consumption (especially in off-peak periods). When LD 1724 was introduced to establish the Beneficial Electrification Policy Act, the Trust supported and advocated for merging beneficial electrification programs into the statutory provisions governing the Trust's electric efficiency programs (Title 35-A, section 10110) as a matter of convenience. In retrospect, it may have been wiser to have created some separation between the two. The Trust looks forward to engaging in discussions about how to optimize the Act. In so doing, we hope to ensure that Maine ratepayers reap the full benefits that cost-effective beneficial electrification and energy efficiency have to offer.