



FY2024 ANNUAL REPORT

DRAFT

The Efficiency Maine Trust (Efficiency Maine) is the independent, quasi-state agency established to plan and implement energy efficiency programs in Maine. Through its suite of programs, Efficiency Maine provides consumer information, marketing support, demonstration pilots, discounts, rebates, loans, and other initiatives to promote high-efficiency equipment and operations that help Maine's homes, businesses, and institutions reduce their energy costs and lower their greenhouse gas emissions. The result is job growth, a more efficient grid, improved energy independence, a stronger local economy, and critical progress toward meeting the state's climate change goals. Efficiency Maine is governed by a Board of Trustees with oversight from the Maine Public Utilities Commission.

Board of Trustees

Glenn Poole, Chair

Mark Isaacson, Vice-Chair

Kenneth Colburn, Treasurer

Joan Welsh, Secretary

Dan Brennan, Ex Officio

Dan Burgess, Ex Officio

Heather Furth

Suzanne MacDonald

Christopher Rauscher

Efficiency Maine Trust, 168 Capitol Street, Suite 1, Augusta, Maine 04330

866-376-2463

www.energymaine.com

Last Revised: November 7, 2024

Table of Contents

Abbreviations/Acronyms	vi
Message from the Executive Director	ix
Introduction	1
Major Programs	7
Commercial and Industrial Custom Program	8
Commercial and Industrial Prescriptive Initiatives	13
Distributor Initiatives	17
Retail Initiatives.....	19
Home Energy Savings Program	22
Low-Income Initiatives	25
Electric Vehicle Initiatives	32
Demand Management Program	35
Other Initiatives	39
Efficiency Maine Green Bank	39
Non-Wires Alternatives.....	42
Renewables	43
Lead by Example Initiative	43
Agricultural Fair Assistance Program	44
Thermal Energy Investment Program	45
High-Performance Affordable Housing Pilot.....	46
School Decarbonization Program.....	46
Strategic Initiatives	48
Evaluation, Measurement, and Verification	49
Innovation	51
Public Information and Outreach.....	55
Finance and Administration	58
Funding Sources	59
Expenditures	63
Statutory Budget Allocation Requirements	64
Audit Results	68
ISO-New England.....	68
Regional Greenhouse Gas Initiative.....	69
Administration	70
Legislative Recommendations	71
Organizational Initiatives and Collaborations	72
Legislature.....	72
Public Utilities Commission.....	72
Governor’s Energy Office and Governor’s Office of Policy Innovation and the Future	74
MaineHousing	74
Department of Environmental Protection	77
Department of Transportation	77
Department of Health and Human Services	77

Office of the Public Advocate.....	77
Maine Climate Council	78
Lead by Example	78
Electric Ratepayer Advisory Council	79
Equity	79
Workforce Development	79
Codes and Standards.....	80
Other Related Initiatives	80
Appendices.....	81
Appendix A: Energy Savings	82
Appendix B: Benefit-to-Cost Ratios.....	84
Appendix C: Program Expenditures	85
Appendix D: FY2025 Budget.....	86
Appendix E: Public Utilities Commission Assessments and Revenue Collections	87
Appendix F: Maine Jobs and Recovery Plan Initiatives	88
Appendix G: Energy Efficiency in Manufactured Housing	94
Appendix H: Glossary	97

List of Tables

Table 1: Sectors Served by Major Programs	2
Table 2: Sectors Served by Other Initiatives	3
Table 3: Major Programs’ Funding Sources	4
Table 4: Other Initiatives’ Funding Sources	4
Table 5: Costs and Benefits for Major Electric Programs	5
Table 6: Costs and Benefits for Major Thermal Programs	6
Table 7: C&I Custom Program – Electric Results.....	9
Table 8: C&I Custom Program – Thermal Results	9
Table 9: C&I Prescriptive Initiatives – Electric Results.....	14
Table 10: C&I Prescriptive Initiatives – Thermal Results	14
Table 11: Distributor Initiatives – Electric Results	17
Table 13: Retail Initiatives – Electric Results.....	20
Table 14: Home Energy Savings Program – Electric Results	23
Table 15: Home Energy Savings Program – Thermal Results	23
Table 16: Low-Income Initiatives – Electric Results	27
Table 17: Low-Income Initiatives – Thermal Results	28
Table 18: EV Initiatives – EVSE Results.....	33
Table 19: EV Initiatives – Rebate Results	33
Table 20: Demand Management Program – Electric Results	36
Table 21: FY2024 Revenues	63
Table 22: FY2024 Expenditures.....	64
Table 23: FY2024 Low-Income Electric Expenditures	66
Table 24: FY2024 Small Business Electric Expenditures	66
Table 25: FY2024 Low-Income Expenditures (All Funding Streams)	67

Table 26: MaineHousing Energy Efficiency and Weatherization Initiatives 76

Table A-1: FY2024 Energy Savings – Major Electric Programs..... 83

Table A-2: FY2024 Energy Savings – Major Thermal Programs 83

Table A-3: FY2024 Energy Savings – Other Initiatives..... 83

Table B-1: Benefit-to-Cost Ratios – Major Electric Programs 84

Table B-2: Benefit-to-Cost Ratios – Major Thermal Programs..... 84

Table C-1: Expenditures – Major Electric Programs 85

Table C-2: Expenditures – Major Thermal Programs 85

Table C-3: Expenditures – Other Initiatives 85

Table D-1: FY2024 Budget as Approved by the Board of Trustees 10/3/2024..... 86

Table E-1: Public Utilities Commission Assessments and Revenue Collections..... 87

Table F-1: Low-and Moderate-Income Weatherization Initiative – Performance Metrics 89

Table F-2: Hospitality Retrofit Initiative – Performance Metrics..... 90

Table F-3: Energy Efficiency Initiative for Local Government, Public Schools, and Congregate Housing –
Performance Metrics..... 91

Table F-4: Energy Efficiency Initiative for Manufacturers – Performance Metrics..... 91

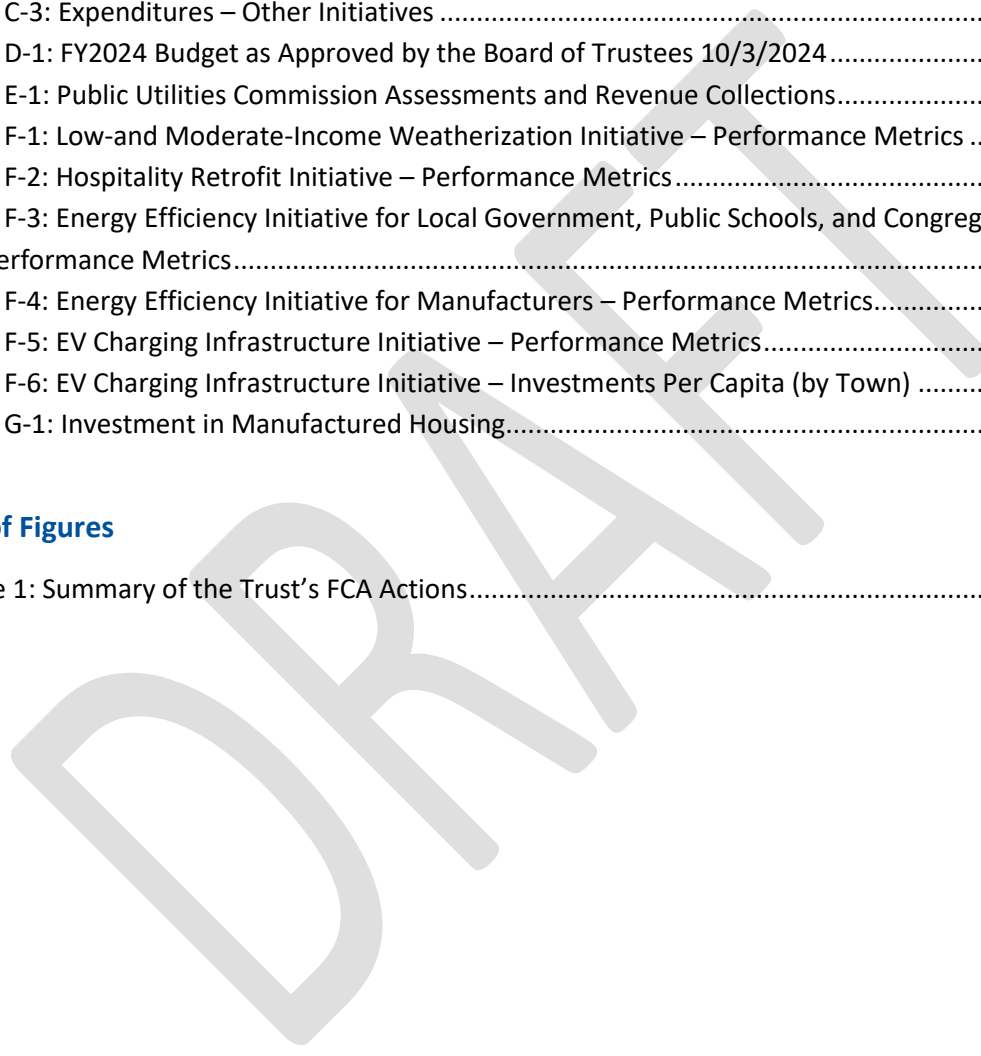
Table F-5: EV Charging Infrastructure Initiative – Performance Metrics..... 92

Table F-6: EV Charging Infrastructure Initiative – Investments Per Capita (by Town) 93

Table G-1: Investment in Manufactured Housing..... 95

List of Figures

Figure 1: Summary of the Trust’s FCA Actions..... 69

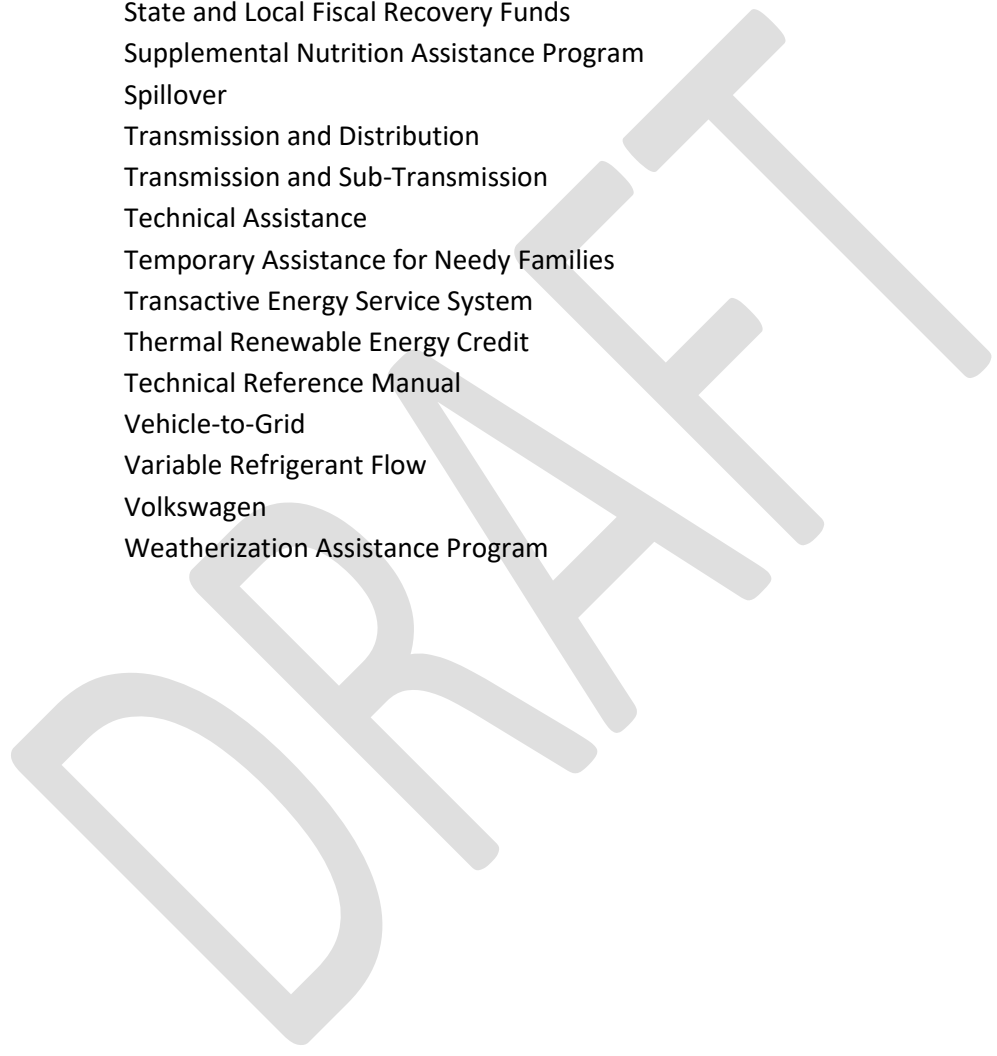


Abbreviations/Acronyms

ACP	Alternative Compliance Payment
AGI	Adjusted Gross Income
AMP	Arrearage Management Program
API	Application Programming Interface
ARPA	American Rescue Plan Act
BEV	Battery Electric Vehicle
BGS	Bureau of General Services
BIL	Bipartisan Infrastructure Law
C&I	Commercial and Industrial
C-PACE	Commercial Property Assessed Clean Energy
CCF	Centum Cubic Feet
CFI	Charging and Fueling Infrastructure
CIP	Commercial and Industrial Prescriptive
CMP	Central Maine Power
CMR	Code of Maine Rules
CO ₂ e	Carbon Dioxide Equivalent
CPRG	Climate Pollution Reduction Grant
CSO	Capacity Supply Obligation
CSP	Curtailment Service Provider
DAC	Disadvantaged Community
DAFS	Department of Administrative and Financial Services
DC	Direct Current
DEP	Maine Department of Environmental Protection
DER	Distributed Energy Resource
DERMS	Distributed Energy Resource Management System
DHHS	Department of Health and Human Services
DIY	Do-It-Yourself
DOE	U.S. Department of Energy
ECM	Electronically Commutated Motor
EERLF	Energy Efficiency Revolving Loan Fund
EERRF	Energy Efficiency and Renewable Resource Fund
EM&V	Evaluation, Measurement, and Verification
EPA	U.S. Environmental Protection Agency
EV	Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
FCA	Forward Capacity Auction
FCM	Forward Capacity Market
FON	Funding Opportunity Notice
FR	Free Ridership

FY	Fiscal Year
GEO	Governor's Energy Office
GGRF	Greenhouse Gas Reduction Fund
GHG	Greenhouse Gas
GOPIF	Governor's Office of Policy Innovation and the Future
GSL	General Service Lamp
HEAP	Home Energy Assistance Program
HESP	Home Energy Savings Program
HVAC	Heating, Ventilation, and Air Conditioning
IRA	Inflation Reduction Act
ISO-NE	Independent System Operator for New England
K-12	Kindergarten to Grade 12
kW	Kilowatt(s)
kWh	Kilowatt-Hour(s)
LBE	Lead by Example
LD	Legislative Document
LED	Light-Emitting Diode
M&V	Measurement and Verification
MAAF	Maine Association of Agricultural Fairs
MACE	Maximum Achievable Cost-Effective
MaineDOT	Maine Department of Transportation
MaineHousing	Maine State Housing Authority
MJRP	Maine Jobs and Recovery Plan
MMBtu	Million British Thermal Unit(s)
MOU	Memorandum of Understanding
MPRP	Maine Power Reliability Program
MRS	Maine Revised Statutes
MTI	Maine Technology Institute
MUBEC	Maine Uniform Building and Energy Code
MW	Megawatt(s)
MWh	Megawatt-hour(s)
NECEC	New England Clean Energy Connect
NEVI	National EV Infrastructure
NTG	Net-to-Gross
NWA	Non-Wires Alternative
NWAC	NWA Coordinator
OPA	Office of the Public Advocate
PACE	Property Assessed Clean Energy
PACT	Program Administrator Cost Test
PHEV	Plug-in Hybrid Electric Vehicle
PHTP	Packaged-Terminal Heat Pump
PON	Program Opportunity Notice

PreK	Pre-Kindergarten
PUC	Public Utilities Commission (Maine)
QP	Qualified Partner
RFP	Request for Proposals
RGGI	Regional Greenhouse Gas Initiative
RRV	Residential Registered Vendor
SBI	Small Business Initiative
SCADA	Supervisory Control and Data Acquisition
SLFRF	State and Local Fiscal Recovery Funds
SNAP	Supplemental Nutrition Assistance Program
SO	Spillover
T&D	Transmission and Distribution
T&ST	Transmission and Sub-Transmission
TA	Technical Assistance
TANF	Temporary Assistance for Needy Families
TESS	Transactive Energy Service System
TREC	Thermal Renewable Energy Credit
TRM	Technical Reference Manual
V2G	Vehicle-to-Grid
VRF	Variable Refrigerant Flow
VW	Volkswagen
WAP	Weatherization Assistance Program



Message from the Executive Director



It's been a busy year for the Efficiency Maine Trust ("the Trust"), filled with planning for and deploying unprecedented levels of investment by the federal government in state energy efficiency initiatives. Simultaneously, we prepared and drafted Triennial Plan VI, our strategic blueprint of initiatives for the next three years to support the transition to beneficial electrification and greater demand management, both of which will help lower energy bills and suppress electricity rates.

A significant highlight of Fiscal Year 2024 (FY2024) was the Trust's implementation of a new program design for its heat pump programs, which shifted program emphasis to a beneficial-electrification-focused "whole-building" approach to heat pump system design. Restructuring the programs in this way supports our mandate to implement cost-effective initiatives that help Maine consumers save more money on their heating bills. We have the contractors of Maine to thank for adapting to this shift in emphasis and for making it a success. And we continue to hear from customers whose homes and buildings are solely heated with heat pumps that they are warm in the winter and cooler in the summer.

FY2024 also marked an unprecedented influx of funding to the Trust; more than \$100 million in new federal grant funding will support its efforts now and into the future to deliver program enhancements and new initiatives within its residential, low-income, commercial, industrial, electric vehicle (EV), and electric grid management programs.

In FY2024, those efforts included:

- Investing \$13 million Maine Jobs and Recovery Plan (MJRP), the state's plan for deploying federal funds from the American Rescue Plan Act of 2021 (ARPA), to support upgrades in low- and moderate-income homes, and in hospitality, public school, and municipal buildings.
- Awarding \$9.6 million of Maine's \$19 million National Electric Vehicle Infrastructure (NEVI)¹ program grant to expand Maine's public EV charging infrastructure.
- Securing \$863,100 through the Energy Efficiency Revolving Loan Fund Capitalization Grant Program (EERLF)² to support a targeted initiative providing loans and grants for energy audits and beneficial electrification retrofit projects in congregate living facilities (i.e., supervised group living facilities, such as long-term care, group home, and supportive housing facilities).
- Securing a \$15 million competitive award through the Charging and Fueling Infrastructure (CFI) Discretionary Grant program.³ This grant will complement the NEVI program, focusing on community-based charging, disadvantaged communities, and rural service centers.

¹ NEVI was funded through the Infrastructure Investment and Jobs Act of 2021 (a.k.a. the Bipartisan Infrastructure Law [BIL]). The Maine Department of Transportation (MaineDOT) is the primary awardee; the Trust administers the program as a subrecipient.

² The EERLF was authorized through the BIL. The Governor's Energy Office (GEO) is the primary awardee; the Trust will administer the program as a subrecipient.

³ The CFI Discretionary Grant program was funded through the BIL. MaineDOT is the primary awardee; the Trust will administer the program as a subrecipient.

- Securing a \$10 million competitive grant through the Energy Improvements in Rural or Remote Areas (ERA) program to support the installation of whole-home heat pumps in manufactured/mobile homes.⁴
- Developing plans for administering funding from the IRA Greenhouse Gas Reduction Fund (GGRF), which is intended to support financing institutions in mobilizing investment in clean technology projects. The Trust coordinated with a successful lead applicant to the GGRF's National Clean Investment Fund grant competition and, at the time of this writing, expects to receive approximately \$15 million to capitalize the Efficiency Maine Green Bank through this channel in FY2025.
- Collaborating with state agencies across New England, including from Governor Mills' office, and the Northeast Energy Efficiency Partnerships to develop a successful regional proposal to deliver more financial incentives for home electrification measures (e.g., heat pump water heaters and heat pumps) through the Climate Pollution Reduction Grants (CPRG) program.⁵ The Trust will administer a budget of approximately \$48 million from the grant to provide incentives for eligible projects in Maine.
- Working with the Governor's Energy Office (GEO) and the Maine State Housing Authority (MaineHousing) to develop a plan for Maine's allocation of IRA Home Energy Rebate Program Funds.⁶ With these partners, the Trust solicited stakeholder feedback on Maine's proposed program designs and budget allocations and submitted application materials to the U.S. Department of Energy (DOE).

In other work over the past year, Efficiency Maine's Demand Management Program has gained the experience and sophistication it will need to play a bigger role in balancing the grid and enhancing reliability as more electric load is added through heat pumps and EVs. The program enrolled 230 small batteries and EV chargers in its Load Shifting Initiative, approved two commercial battery projects over one megawatt each, and enrolled more than 15 megawatts of demand response reduction to help beat the heat waves this past summer.

The Trust is excited about how its work in FY2024 has set the stage to help it implement the Beneficial Electrification Policy Act (BEPA)⁷ in FY2025 and beyond. This groundbreaking law allows the Trust to leverage electric ratepayer funds to fuel-switching measures (i.e., from fossil fuels to electricity) in certain limited circumstances: where those measures are cost-effective and would, over the life of the measures, reliably reduce electric utility rates. This change will ensure sustained, more predictable funding for beneficial electrification incentives, setting Maine on the path toward future lower energy costs, energy independence, and meeting its statutory carbon reduction goals. BEPA also directs the

⁴ The ERA program was authorized through the BIL. The Trust collaborated with GEO and MaineHousing in applying for this grant funding. The Trust is the primary awardee.

⁵ The CPRG program was funded through the IRA. The State of Connecticut is the primary awardee; the Trust will administer the program as a subrecipient.

⁶ GEO will be the primary awardee; the Trust will administer the program as a subrecipient.

⁷ Public Law, Chapter 328, 131st Maine State Legislature, First Special Session, Legislative Document (LD) 1724, An Act to Enact the Beneficial Electrification Policy Act.

Trust to develop a three-year plan for “beneficial electrification” and to incorporate that plan into its triennial plans and updates. In FY2024, the Trust developed an “interim” beneficial electrification plan for FY2025, while simultaneously working to craft a full 3-year beneficial electrification plan for the Triennial Plan VI period.

The Trust spent a significant amount of time this past year developing the comprehensive strategy for the next three years of programming in Triennial Plan VI. The staff performed extensive market research, analyzed past performance of its programs, held numerous stakeholder briefings, and fielded extensive public comments. The final product is now being reviewed by the Public Utilities Commission, and, once adopted, will guide Efficiency Maine programs through the year 2028. Triennial Plan VI proposes initiatives that will:

- lower overall energy bills for Maine homes and businesses;
- identify a maximum potential to suppress electricity rates by up to \$490 million over the lifetime of the beneficial electrification measures that could be installed during the Triennial Plan VI’s three years of program activity;
- expand the Trust’s initiatives to help manage costs of electricity by managing time of use for electronic equipment and avoiding periods of peak demand;
- advance carbon reduction targets set in Maine statute to mitigate and improve resilience to the harmful impacts of climate change;
- contribute to putting Maine on a path to energy independence and insulating Maine consumers from volatility of global energy prices; and
- promote investment in upgrades to Maine’s building sector and transportation equipment.

The Triennial Plan VI is forecasted to achieve the following results:

- 38,000 homes heated entirely with heat pumps
- 6,500 low-income homes heated entirely with heat pumps
- 9,900 homes weatherized (1,500 low-income, 1,800 moderate-income, 6,600 any-income)
- 1,700 new battery systems in homes and small businesses
- \$43 million invested in small businesses
- \$490 million suppression of electricity rates

The Trust is excited to seize these opportunities to continue the work it has begun to deploy this plan and it is enthusiastic about further advancing Maine’s goals for energy efficiency.

The Trust extends its appreciation to its Board of Directors, staff, network of contractors, fellow agencies, and all who lent their support throughout this unparalleled year of progress and promise.

Sincerely,

/s/ Michael D. Stoddard

Introduction

This Annual Report of the Efficiency Maine Trust describes activities during Fiscal Year 2024 (FY2024), which covered the period from July 1, 2023, to June 30, 2024. The report includes the budgets, activities, and results for all programs and related activities administered by the Trust. In total, these programs will save more than 90,775 megawatt-hours (MWh), and more than 12 million British thermal units (MMBtu) in cost-effective lifetime energy savings for Maine energy consumers. The Trust's FY2024 programs helped:

- Avoid more than \$559 million in unnecessary lifetime energy costs;
- Prompt more than \$250 million of incremental private investment using approximately \$100 million of program investment;
- Advance the Governor's new heat pump goal⁸ by installing 27,520 high-performance heat pumps⁹ since July 2023, reaching a milestone of rebating more than 175,000 total heat pumps over the past 12 years;
- Support 2,856 weatherization projects (of which 953 projects were in homes of low-income and moderate-income homes) through the Home Energy Savings Program (HESP) and Low & Moderate-Income Initiatives;
- Install more than 10,500 heat pump water heaters – an all-time annual record;
- Avoid an estimated 62,000 short tons of annual greenhouse gas emissions; and
- Reduce summer peak demand by more than 19 MW.

The Trust was created by state statute in 2009.¹⁰ The purposes of the Trust include:

- Consolidating under one roof the funds for Maine's consumer-focused efficiency and alternative energy programs for all fuel types, including electric, natural gas, and unregulated fuels;
- Procuring distributed energy resources (such as efficiency, demand response, energy storage) that cost less than traditional energy solutions to help individuals and businesses meet their energy needs at the lowest cost; and
- Helping transform the energy market in Maine so that energy-efficient products, alternative energy equipment, and related energy services are more accessible and affordable to residents, businesses, non-profits, and governmental entities.

The Trust is governed by a nine-member Board of Trustees. For the majority of FY2024, Suzanne MacDonald (Senior Researcher at the National Renewable Energy Laboratory) and Joan Welsh (former member of the Maine House of Representatives) served as Chair and Vice-Chair, respectively. Glenn Poole (former Energy Manager at Verso Corporation) served as Treasurer, and Kenneth Colburn

⁸ After Maine reached its goal of installing 100,000 heat pumps between 2019 and 2025 two years early (in 2023), the Governor set a new goal to install 175,000 additional heat pumps between 2023 and 2027.

⁹ The Trust bases its count of units on a "heat pump equivalent" to accommodate the diversity of systems installed across the residential and commercial sectors. One "heat pump equivalent" represents the potential to offset 25.1 MMBtu of delivered heat per year.

¹⁰ 35-A Maine Revised Statutes (MRS) Chapter 97.

(Principal at Symbiotic Strategies LLC) served as Secretary. Ex officio positions were filled by Dan Burgess (Director of the Governor’s Energy Office [GEO]) and by Dan Brennan (Director of the Maine State Housing Authority). Heather Furth (Owner of Orono Brewing Company), Mark Isaacson (Manager at Competitive Energy Services, retired), and Christopher Rauscher (Senior Director of Market Development and Strategy at Sunrun) also served.

Sectors Served

The Trust’s programs and initiatives serve multiple sectors. Table 1 illustrates the sectors served by each Major Program. Table 2 illustrates the sectors served by each of the Trust’s Other Initiatives.

Table 1: Sectors Served by Major Programs

Program	Commercial and Industrial	Small Businesses	Multifamily	Residential			Institutions and Governmental Entities
				Any Income	Low Income	Moderate Income	
Commercial and Industrial Custom Program	✓	✓	✓				✓
Commercial and Industrial Prescriptive Initiatives	✓	✓	✓				✓
Distributor Initiatives	✓	✓	✓	✓	✓	✓	✓
Retail Initiatives	✓	✓	✓	✓	✓	✓	✓
Home Energy Savings Program			✓	✓	✓	✓	
Low-Income Initiatives			✓		✓	✓	
Electric Vehicle Initiatives ¹¹	✓	✓	✓	✓	✓	✓	✓
Demand Management Program	✓	✓	✓	✓	✓	✓	✓

¹¹ The Trust’s EV Initiatives comprise two main components. The first component is the EV supply equipment (EVSE) initiative, which provides planning, education and financial incentives to promote the installation of EV chargers. In FY2024, the EVSE initiative limited participation to properties that are publicly accessible, which did not include private homes. The second component is the EV rebates initiative, which provides consumer education and financial incentives for the purchase or lease of qualifying vehicles. Rebates for the purchase or lease of vehicles were available to all types of Maine customers.

Table 2: Sectors Served by Other Initiatives

Program	Commercial and Industrial	Small Businesses	Multifamily	Residential			Institutions and Governmental Entities
				Any-Income Households	Low-Income Households	Moderate-Income Households	
Efficiency Maine Green Bank	✓	✓	✓	✓	✓	✓	✓
Non-Wires Alternatives	✓	✓	✓	✓	✓	✓	✓
Renewables ¹²				✓			
Lead by Example Initiative							✓
Agricultural Fair Assistance Program	✓	✓					
Thermal Energy Investment Program	✓	✓	✓				✓
High-Performance Affordable Housing Pilot			✓				
School Decarbonization Program							✓

Funding

The Trust received and/or expended funds in FY2024 from a variety of sources, including Maine’s electricity and natural gas utility ratepayers, the Regional Greenhouse Gas Initiative (RGGI), the Maine Power Reliability Program (MPRP) Settlement Funds, the Forward Capacity Market (FCM) from the New England grid, the New England Clean Energy Connect (NECEC) Settlement Funds, federal funds, the Energy Efficiency and Renewable Resource Fund (EERRF), the Volkswagen (VW) Settlement Funds, the Agricultural Fair Assistance Program Fund, and the Thermal Energy Investment Fund. The Trust is directed by Maine statute to invest these funds to promote more efficient and affordable use of energy and customer-sited alternative energy systems. Table 3 and Table 4 depict the FY2024 funding sources available to each of the Trust’s major programs or other initiatives.¹³ Detailed descriptions of the Trust’s funding sources and spending can be found in the [Finance and Administration](#) section.

¹² As described in the Renewables section, the Trust allocated the Renewables budget to fund residential rebates in the Innovation Program’s Hydronic Heat Pump with Thermal Storage Pilot. The pilot was restricted to a handful of homes, so did not broadly serve the residential sector.

¹³ Table 3 and Table 4 reflect the funding sources available to each program or initiative in FY2024. In some cases, those budgeted funds were not actually spent during this fiscal year. By contrast, the “funds invested” indicated at the start of each major program chapter represent the funding sources deployed in FY2024.

Table 3: Major Programs' Funding Sources

Program	Electric Efficiency Procurement	Natural Gas Efficiency Procurement	Regional Greenhouse Gas Initiative	Forward Capacity Market	Federal Funds	Maine Power Reliability Program Settlement Funds	NECEC Settlement Funds	Volkswagen Settlement Funds	State General Fund
Commercial and Industrial Custom Program	✓	✓	✓	✓	✓	✓			✓
Commercial and Industrial Prescriptive Initiatives	✓	✓	✓		✓		✓		
Distributor Initiatives	✓								
Retail Initiatives	✓								
Home Energy Savings Program	✓		✓	✓					
Low-Income Initiatives	✓		✓	✓	✓		✓		
Electric Vehicle Initiatives ¹⁴					✓		✓	✓	✓
Demand Management Program	✓								

Table 4: Other Initiatives' Funding Sources

Initiative	Electric Efficiency Procurement	Regional Greenhouse Gas Initiative	Federal Funds	Volkswagen Settlement Funds	Energy Efficiency and Renewable Resource Fund	Agricultural Fair Assistance Program Fund	Thermal Energy Investment Fund
Efficiency Maine Green Bank		✓	✓				
Non-Wires Alternatives	✓						
Renewables ¹⁵					✓		
Lead by Example Initiative				✓			
Agricultural Fair Assistance Program						✓	
Thermal Energy Investment Program							✓
High-Performance Affordable Housing Pilot		✓					
School Decarbonization Program		✓					

¹⁴ As previously noted, the Trust's EV Initiatives comprise two main components: the EVSE (charging) initiative and the EV rebates initiative. The EVSE initiative leveraged federal, NECEC, and VW funds. The EV rebates initiative leveraged NECEC and VW funds, as well as an allocation from the State General Fund.

¹⁵ As described in the Other Initiatives section, the Trust used these funds to support the Innovation Program's Hydronic Heat Pump with Thermal Storage Pilot in FY2024.

Results

In FY2024, the programs that the Trust administered played an important role in helping Maine businesses and households take advantage of energy efficiency, educating consumers about products that save energy, and helping them connect with vendors and contractors. The Trust's programs provided financial incentives that spurred consumers to choose energy-efficient options over lower-priced, less-efficient options—a choice that will reduce energy bills over the long term and put the Maine economy on a stronger footing.

Table 5 and Table 6 illustrate the costs and benefits associated with major programs that the Trust administered in FY2024.¹⁶ Efficiency Maine's costs reflect the financial incentives paid by the programs, as well as the costs to manage the programs, provide public information and outreach, hold training sessions, provide technical support, and conduct quality assurance for each program. The tables also show the program participants' (customers') incremental costs invested in the energy upgrades, including those associated with upfront costs and operational costs. The lifetime benefits reflect the financial benefits from the energy savings (lifetime avoided energy supply costs and avoided operations and maintenance costs).^{17,18} The benefit-to-cost ratio indicates the ratio of the financial benefits to the sum of Efficiency Maine costs plus participants' incremental costs.

Table 5: Costs and Benefits for Major Electric Programs

Program	Efficiency Maine Costs	Participant Costs	Lifetime Benefits	Benefit-to-Cost Ratio
Commercial and Industrial Custom Program – Electric	\$4,028,821	\$7,453,631	\$26,998,885	2.35
Commercial and Industrial Prescriptive Initiatives – Electric	\$11,872,459	\$16,099,609	\$80,524,367	2.88
Distributor Initiatives – Electric	\$7,983,357	\$801,151	\$26,805,343	3.05
Retail Initiatives – Electric	\$7,778,697	\$1,394,563	\$23,977,538	2.61
Home Energy Savings Program – Electric	\$12,839,717	\$109,256,249	\$164,499,002	1.35
Low-Income Initiatives – Electric	\$1,301,279	\$521	\$3,407,009	2.62
Demand Management Program	\$660,680	\$0	\$5,391,182	8.16
Total	\$46,465,009	\$135,005,724	\$331,603,327	1.83

¹⁶ The costs associated with the Trust's other activities (Other Initiatives, Strategic Initiatives, and Administration) can be found in Table 21.

¹⁷ For detail on the energy savings values incorporated into this calculation by program, see [Table A-1](#) and [Table A-2](#). Where Other Initiatives generated any associated savings, those are captured in [Table A-3](#).

¹⁸ The lifetime benefits shown in the summary tables, and in the individual program tables throughout this report, are calculated using methodologies and assumptions approved by the Public Utilities Commission (PUC) as part of the approval process for the Trust's Triennial Plan V.

Table 6: Costs and Benefits for Major Thermal Programs

Program	Efficiency Maine Costs	Participant Costs	Lifetime Benefits	Benefit- to-Cost Ratio
Commercial and Industrial Custom Program – Natural Gas	\$234,475	\$605,160	\$1,312,656	1.56
Commercial and Industrial Custom Program – Unregulated Fuels	\$654,762	\$17,994	\$95,529	0.14 ¹⁹
Commercial and Industrial Prescriptive Initiatives – Natural Gas	\$146,539	\$136,603	\$2,799,937	9.89
Commercial and Industrial Prescriptive Initiatives – Unregulated Fuels	\$7,088,802	\$15,305,394	\$46,408,551	2.07
Home Energy Savings Program – Unregulated Fuels	\$8,057,125	\$18,248,187	\$31,740,469	1.21
Low-Income Initiatives – Unregulated Fuels	\$23,962,273	\$65,905,751	\$113,583,075	1.26
Electric Vehicle Initiatives – EV Rebates ²⁰	\$2,635,373	\$14,744,190	\$31,767,191	1.83
Total	\$42,779,348	\$114,963,278	\$227,707,407	1.44

¹⁹ As described in the C&I Custom Program chapter, this low benefit-to-cost ratio is due to long project timelines and a relatively low number of project completions (i.e., pay-outs) in FY2024, while accounting for costs incurred to develop and manage projects that were committed to in this fiscal year. The benefits will be reported in the (future) fiscal year in which the projects are completed.

²⁰ As noted above, the Trust's EV Initiatives comprises two main components: EVSE (i.e., chargers) and EV rebates. In this report, the Trust includes EVSE expenditures in the "Other Initiatives" tables (see, e.g., Table 21 and [Table C-3](#)). While EV chargers are critical infrastructure for promoting the increased use of EVs, chargers do not, by themselves, save any energy. The Trust attributes all costs and savings associated with EVs in the "Major Programs" tables under EV Initiatives. Because the savings of EVs derive from avoiding the consumption of gasoline or diesel fuel, they are reported as thermal savings rather than electric savings.

Major Programs

Commercial and Industrial Custom Program

The Commercial and Industrial (C&I) Custom Program incentivizes tailored energy efficiency projects that require site-specific engineering analyses and/or projects with energy conservation measures that are not otherwise covered by prescriptive incentives. The C&I Custom Program is primarily designed to overcome the barriers confronting Maine’s larger businesses and institutions when making investments in complex energy efficiency and distributed generation projects. These projects represent important facility improvements that reduce the inefficient use of energy and keep operating costs down for Maine’s largest energy users.

FY2024 Activities

Following are some program activity highlights for FY2024:

- Awarded incentives to 10 new customers and 20 customers who had participated in prior years.
- Observed an uptick in program interest from manufacturing facilities, driven in part by a targeted, federal incentive for projects that reduce fossil fuel use and additional bonus incentives for beneficial electrification and heat recovery projects.²¹
- Supported continued interest in heating, ventilation, and air conditioning (HVAC) controls and equipment, which constituted 8 of 30 awards made and accounted for 13% of incentive funds awarded.
- Supported increased interest in insulation measures including steam piping and component insulation, as well as thermal curtains for green houses. These projects constituted 4 of 30 awards made and accounted for 14% of incentive funds awarded.
- Observed a decline in participation in three areas that have constituted a large portion of program activity in recent years: projects at cannabis cultivation facilities, microsteam turbine technology, and snowmaking equipment.
- Managed the initiative to increase installation and use of clean, cost-effective energy measures at properties owned or leased by the State of Maine – the so-called Lead by Example (LBE) Initiative.²²

Commercial and Industrial Custom Program

Sectors Served

- Commercial and Industrial
- Small Business
- Multifamily
- Institutions and Governmental Entities

Funds Invested

- Electric Efficiency Procurement
- Natural Gas Efficiency Procurement
- Regional Greenhouse Gas Initiative
- Forward Capacity Market
- Federal Funds
- Maine Power Reliability Program Settlement Funds

²¹ For additional detail on this initiative, see [Appendix F: Maine Jobs and Recovery Plan Initiatives](#).

²² Though managed through the C&I Custom Program, the LBE Initiative did not leverage C&I Custom Program funds. The Trust tracks all LBE Initiative activity and results separately under Other Initiatives.

- Managed the Demand Management Program's initiative to install large commercial batteries – the so-called Energy Storage System Program.²³

FY2024 Results²⁴

Table 7: C&I Custom Program – Electric Results

Metric	Value
Total Participants	14
Total Projects	15
Efficiency Maine Costs	\$4,028,821
Participant Costs	\$7,453,631
Lifetime Benefits ²⁵	\$26,998,885
Benefit-to-Cost Ratio	2.35

Table 8: C&I Custom Program – Thermal Results

Metric	Value	
	Natural Gas	Unregulated Fuels
Total Participants	2	2
Total Projects	2	2
Efficiency Maine Costs	\$234,475	\$654,762
Participant Costs	\$605,160	\$17,994
Lifetime Benefits ²⁶	\$1,312,656	\$95,529
Benefit-to-Cost Ratio	1.56	0.14 ²⁷

FY2024 Analysis

The C&I Custom Program continued to employ an incremental approach to developing projects. The program team focused on encouraging customers to complete one or more individual projects that fit with their current priorities and budget, building a positive foundation for additional program participation and energy efficiency investment in the future. This strategy appears to be effective; as noted above, the program continues to see a significant number of repeat participants.

Activity in the manufacturing sector grew substantially in FY2024. Manufacturers not only took advantage of the enhanced, MJRP-funded incentives for projects that reduce fossil fuel (with additional

²³ Though managed through the C&I Custom Program, the Energy Storage System Program did not leverage C&I Custom Program funds. The Trust tracks all Energy Storage System Program activity and results separately under the Demand Management Program.

²⁴ Some custom projects achieved a blend of electric and thermal savings in FY2024. The results associated with each fuel type are reported in the corresponding tables. Participant figures are therefore repeated; overall, the C&I Custom Program closed projects with 16 distinct participants in FY2024.

²⁵ For detail on the energy savings values incorporated into this calculation, see [Table A-1](#).

²⁶ For detail on the energy savings values incorporated into this calculation, see [Table A-2](#).

²⁷ The low reported program-level benefit-to-cost ratio reflects a significant portion of the program delivery costs incurred for ongoing projects whose benefits will be realized in future program years. Excluding program delivery costs, the project-level benefit-to-cost ratio for custom unregulated fuels projects closed in FY2024 is approximately 3.0.

bonus incentives for beneficial electrification and heat recovery projects), but they also sought out standard incentives for electric efficiency projects through the program.

The program also supported increased interest in certain insulation measures, including steam piping and component insulation, as well as thermal curtains for greenhouses. These particular insulation projects are high-value opportunities with considerable energy cost savings potential.

The program observed a drastic decline in interest from cannabis cultivation facilities after several years of high participation. In FY2022, cannabis projects constituted 19 of 41 awards made and accounted for 13% of incentive funds awarded. In FY2023, cannabis projects constituted 7 of 32 awards made and accounted for 16% of incentive funds awarded. In FY2024, the program did not make a single award to this sector. The Trust attributes this decline primarily to market saturation. Since Maine issued its first recreational cannabis licenses in 2020, many new cultivation facilities sought out Efficiency Maine incentives as part of their facility build-outs. As that expansion has slowed, so too has the sector's participation in the Trust's programs. A second reason for this decline is that what opportunity remains is now served primarily through the C&I Prescriptive Initiatives. The Trust re-directed most cannabis horticultural lighting projects to that program as analysis from past custom projects helped establish consistent, predictable deemed savings values for relatively simple designs and easily accessible equipment. The C&I Custom Program only processes projects with more complex or atypical scenarios that do not qualify for the C&I Prescriptive Initiatives pathway.

The program also experienced declining interest in snowmaking equipment and microsteam turbine technology after relatively high activity for both measures in recent years. Again, the Trust attributes this slowdown to market saturation. Indeed, most of Maine's ski areas responded to rising energy costs and advancements in high-efficiency snowmaking equipment by seeking out the program's incentives. The growth in interest in microsteam turbine engine technology was driven largely by a vendor who actively marketed in Maine. This vendor offers a compact and efficient backpressure turbine package that is economically attractive to lumber mills due to availability of cheaper biomass fuel and rising electric rates. FY2022 saw the first of these packages commissioned. In FY2023, two more of these were commissioned, and the program awarded three new projects. The Trust assumes that the vendor has now contacted most potential sites, and that most of those who determined that the opportunity is worthwhile have moved ahead.

Participants in the C&I Custom Program relied primarily on internal staff and vendors to identify energy efficiency opportunities in FY2023. In some cases, however, more complex projects required site-specific engineering beyond existing staff's capabilities or what vendors were willing to explore on speculation. In other cases, customers were simply unsure of where to start. Accordingly, the program continued to offer support to overcome the lack of site-specific assessment and in-house expertise at customer facilities by providing free scoping audits to identify viable projects. Depending on the context, these scoping audits can range from a comprehensive review of facility opportunities to a consultation and technical guidance on a discrete project. The program also offered technical assistance (TA) grants to support further development of complex projects.

The program completed four scoping audits in FY2024. The number of requests has waned in recent years, coinciding with the rollout of the virtual consultation offering through the C&I Prescriptive Initiatives. This offering provides a simple complement to the C&I Custom Program's on-site scoping audits and can be an efficient way to identify project opportunities in certain, simpler contexts (e.g., retail spaces, offices). Where the virtual consultations identified custom opportunities, customers were referred to the C&I Custom Program. The program completed one TA study in FY2024, continuing the declining trend that began several years ago. (The program completed four TA studies over the past five fiscal years, down from a high of nine completed TA studies in FY2015 alone.) This trend reflects the proliferation of smaller, less complex projects (most of which do not require advanced analysis through a specialized third party) participating in the program over the same period. The program instituted two changes to the TA study incentive offering in FY2024 that it hopes will lead to more participation in future fiscal years: it increased the incentive cap from \$20,000 to \$25,000 and added support for project design development.

Despite relatively slow uptake, scoping audits and TA studies can be a worthwhile investment by the program for those who choose to take advantage of them. Activity from FY2015 through FY2024 suggests that, on average, 52% of scoping audits lead directly to project implementation in subsequent fiscal years. The data also show an average TA-to-project conversion rate of 76% for the same period. The program will continue to invest in these studies where appropriate because, in addition to empowering and encouraging customers to move forward with energy efficiency projects, scoping audits and TA studies represent an opportunity for the program to provide input and direction on facility capital planning.

FY2025 Plans

- Continue to conduct outreach to manufacturers to drive participation in the targeted federal funding opportunity. Where applicable, find additional opportunities to invest the state Industrial Climate Transition Initiative funds to reduce greenhouse gas emissions at industrial facilities in the state.²⁸
- Design and launch a program offering to detect and mitigate compressed air leakage, targeting a significant untapped opportunity.
- Launch an online application process to streamline data collection and improve participant experience.
- Serve as the primary point of contact for all commercial water-to-air heat pump projects. (The C&I Prescriptive Initiatives will discontinue the water-to-air heat pump incentives in acknowledgement of the fact that they are generally site-specific and better-suited to a custom analysis.)
- Work to accommodate the potential for a small number of higher-cost custom project proposals. If a project shows potential for significant, cost-effective electricity savings but

²⁸ For more information on the Industrial Climate Transition Initiative funds, see the [Finance and Administration](#) section.

exceeds the program's \$1 million incentive limit, the Trust may work with customers to have the PUC consider a specific funding request through a long-term capacity contract.

DRAFT

Commercial and Industrial Prescriptive Initiatives

Commercial and Industrial (C&I) Prescriptive Initiatives provide financial incentives, technical assistance, and project management support for the installation of energy-efficient equipment through a mix of broad market-based initiatives and targeted initiatives. The program promotes “off-the-shelf,” widely available equipment that has predictable operating characteristics and applications across the C&I sector. Typical solutions promoted through this program include HVAC systems; LED lighting; and sector-specific solutions, such as refrigeration, compressed air equipment, and agricultural equipment. The program’s targeted initiatives focus on specific sectors, hard-to-reach markets, or certain technologies, providing enhanced incentives or technical support.

Commercial and Industrial Prescriptive Initiatives

Sectors Served

- Commercial and Industrial
- Small Businesses
- Multifamily (≥ 3 units)
- Institutions and Governmental Entities

Funds Invested

- Electric Efficiency Procurement
- Natural Gas Efficiency Procurement
- Regional Greenhouse Gas Initiative
- Federal/Other

FY2024 Activities

Following are some program activity highlights for FY2024:

- Launched a program design change for heat pumps, limiting eligibility to whole-building or whole-zone systems and emphasizing appropriate system sizing.
- Expanded eligibility of packaged-terminal heat pumps (PHTPs) to include other “splitless” heat pump models.
- Incentivized 5,691 heat pumps, including mini-splits, variable refrigerant flow (VRF) systems, and PHTPs/vertical PHTP systems.
- Published a qualified products list for mini-split heat pumps and developed an HVAC checklist to assist Qualified Partners (QPs) in project design and streamline data entry for heat pump projects.
- Launched a new campaign targeting electrification retrofits in licensed assisted housing facilities to invest federal funds. Continued to promote four additional federally funded campaigns targeting the hospitality industry, small municipalities, long-term care facilities, and pre-kindergarten to grade 12 (PreK-12) public schools, expanding certain eligibility criteria to increase participation.²⁹
- Launched a targeted initiative to accelerate whole-building electrification and weatherization in existing multifamily buildings with 3 to 15 units.
- Launched a campaign targeting exterior lighting retrofits and discontinued incentives for interior lighting controls.

²⁹ For more detail on federally funded initiatives, see [Appendix F: Maine Jobs and Recovery Plan Initiatives](#).

- Observed a considerable slowdown in the number of applications for horticultural lighting incentives, particularly from cannabis cultivation facilities.
- Experienced growing interest in “virtual” consultations (launched May 2022) for businesses looking to learn more about how to get started on an energy efficiency project. Conducted 208 consultations, 75 of which led to project implementation (18 participants completed projects, and 57 had projects pending).
- Engaged the QP network and participating distributors with monthly newsletters and webinars, frequent website updates, participation in sector conferences, and ongoing distributor events. The network maintained a high number of engaged contractors (892) representing 758 companies.

FY2024 Results

Table 9: C&I Prescriptive Initiatives – Electric Results

Metric	Value
Total Participants	4,100
Total Projects	40,755 ³⁰
Efficiency Maine Costs	\$11,872,459
Participant Costs	\$16,099,609
Lifetime Benefits ³¹	\$80,524,367
Benefit-to-Cost Ratio	2.88

Table 10: C&I Prescriptive Initiatives – Thermal Results

Metric	Value	
	Natural Gas	Unregulated Fuels
Total Participants	7	312
Total Projects	8	355
Efficiency Maine Costs	\$146,539	\$7,088,802
Participant Costs	\$136,603	\$15,305,394
Lifetime Benefits ³²	\$2,799,937	\$46,408,551
Benefit-to-Cost Ratio	9.89	2.07

FY2024 Analysis

The C&I Prescriptive Initiatives continued to generate momentum behind building electrification in FY2024. The program made a notable shift away from incentivizing supplemental heat pump systems, limiting eligibility to whole-building or whole-zone systems and emphasizing appropriate system sizing. In part, this change was made in response to evaluation results showing that commercial heat pumps were not being used as much as the Trust had assumed, often as a result of an existing central heating system continuing to run and meeting the heat load of spaces before the heat pump could contribute. The program also continued to monitor the ever-expanding universe of heat pump models and

³⁰ Of the 40,755 reported “projects,” 39,704 were bulbs sold through distributors.

³¹ For detail on the energy savings values incorporated into this calculation, see [Table A-1](#).

³² For detail on the energy savings values incorporated into this calculation, see [Table A-2](#).

configuration options to identify potentially eligible measures, expanding eligibility of PHTPs to include “splitless” heat pump models in FY2024.

As efficient LED lamps showed increasing signs of having transformed the market for lighting, the program continued to shift its focus away from lighting measures in FY2025. As with the Trust’s other programs, C&I Prescriptive Initiatives discontinued discounts for screw-in LED replacement lamps in FY2023 when federal regulations phased out incandescent and halogen bulbs, making LED bulbs the standard.³³ In FY2025, the program continued to offer incentives for tubular LED lamps and mogul base lamps, launching a limited-time promotion for exterior lighting retrofits to accelerate the transition of these relatively high-cost measures. It discontinued incentives for interior lighting controls due to cost-effectiveness concerns; the incremental energy savings that can be claimed by installing lighting controls with LED fixtures is generally insufficient. Finally, the program observed a considerable slowdown in the number of applications for horticultural lighting incentives, due primarily to the fact that a large portion of the state’s cannabis cultivation facilities have already participated in the Trust’s programs.

Through its targeted initiatives, the program focused on specific sectors with distinct efficiency opportunities or in harder-to-reach sectors. The program continued its targeted initiatives to support the investment of federal funds in the hospitality industry, small municipalities, long-term care facilities, and PreK-12 public schools. The program expanded eligibility for the initiative targeting small municipalities, extending the opportunity to those with populations between 5,000 and 10,000 (versus under 5,000). It also partnered with The Nature Conservancy to provide enhanced incentives to municipalities that participated in the first round and were looking to expand their projects to serve a whole building. The program also launched a new federally funded campaign targeting electrification retrofits in licensed assisted housing facilities, as well as a targeted initiative for multifamily buildings with 3 to 15 units. Overall, the program has found that the combination of enhanced incentives, direct outreach, custom information, and project management support through these targeted efforts elicits more customer engagement than through standard C&I Prescriptive Initiatives offerings alone. These targeted initiatives also encourage QPs to review opportunities with their customer networks.

The program’s natural gas incentives were limited to large boilers and HVAC controls in FY2024. As indicated by the benefit-to-cost ratio of 9.89 (14.81 in FY2023) these measures are so cost-effective and have such a rapid payback that they are likely to persist in the market without requiring additional incentives from the Trust. Notably, enrollments in both measures have decreased significantly over the past five years – numbering eight total projects in FY2024. Further, the controls that the Trust incentivizes under this program are now integrated into new boiler equipment available on the market today. These conditions indicate that Trust’s incentives for the natural gas boilers and HVAC controls are no longer driving market transformation. The Trust therefore plans to suspend these measures in FY2025.

³³ New standards set by the federal Energy Independence Act of 2007 resulted in LED General Service Lamps (GSLs) becoming the baseline technology for residential and commercial screw-in replacement lamps. With this change in baseline, LED GSLs ceased to be a cost-effective opportunity for program intervention (there being no intervention needed by the Trust’s programs) in most applications, and thus became ineligible for incentives.

In FY2024, the program continued to grow its direct, customer-focused marketing efforts rather than relying primarily on the customer outreach efforts of the QP network. This included participating in industry conferences, attending and leading workshops, and marketing the various initiatives across the state. The program saw increasing interest in its virtual consultation service, indicating that a certain population of Maine businesses and commercial property managers would like to install efficient equipment but do not feel ready to call a contractor. As noted above, the consultations are proving effective in spurring project development; of the 208 consultations conducted in FY2024, 75 led to project implementation (18 participants completed projects and 57 had projects pending).

As in previous years, supporting the program's QP network was an important focus. The program communicates directly with participating contractors through webinars, newsletters, a website, and workshops. The network maintained high number of engaged contractors: 892 individuals representing 758 companies. The most significant growth was among HVAC contractors, reflecting a similar trend in program activity. Indeed, through collaboration with QPs and direct outreach to likely customers, the program saw a continued increase in adoption of larger, more complex HVAC solutions such as VRF systems. The program will continue to prioritize these measures in FY2025.

FY2025 Plans

- Continue and expand targeted incentives for key C&I customer sectors, including small businesses, small municipalities, public schools, long-term care, licensed assisted housing, hospitality, and multifamily buildings (three or more units).
- Launch targeted offerings for multifamily buildings leveraging new federal funds from the Inflation Reduction Act (IRA) Home Energy Rebates program.
- Launch a targeted offering providing grants and loans for energy audits and project implementation in congregate housing facilities, leveraging new federal funds from the Energy Efficiency Revolving Loan Fund Capitalization Grant Program.
- Discontinue water-to-air heat pump incentives in acknowledgement of the fact that they are generally better suited to a site-specific analysis through the C&I Custom Program.
- Suspend remaining natural gas measures (large boilers and HVAC controls) given that they are no longer driving market transformation.
- Develop a qualified products list for VRF systems.
- Continue to offer the virtual consultation service and evaluate its effectiveness.
- Continue to expand marketing and outreach efforts directly to all Maine businesses in addition to those eligible for enhanced incentives through targeted initiatives.
- Continue to attend conferences, workshops, meetings, and other events to share information with potential customers and participating QPs.
- Collaborate with participating distributors and QPs to market available incentives and discounts and targeted initiatives.

Distributor Initiatives

Distributor Initiatives offer incentives for energy-efficient products acquired through distributors. Distributors are supply houses where contractors and larger customers go to purchase plumbing, heating, refrigeration, and electrical supplies. This midstream program leverages relationships with distributors of energy-efficient products to provide instant product discounts and to distribute technology information at the point of purchase. In FY2024, the discounted measures included heat pump water heaters and electronically commutated motor (ECM) circulator pumps for boiler systems.

Distributor Initiatives

Sectors Served

- All

Funds Invested

- Electric Efficiency Procurement

FY2024 Activities

Following are some program activity highlights for FY2024:

- Continued to offer heat pump water heater discounts at all distributors of plumbing supplies in the state; every distributor offers heat pump water heaters at a lower price than traditional electric water heaters.
- Added an incentive on bulk purchases of five or more heat pump water heaters.
- Processed 5,088 instant discounts for heat pump water heaters, compared to 6,217 in FY2023.
- Offered limited-time promotions on ECM circulator pumps, raising the rebate from \$75 to \$100.
- Provided discounts for 14,560 ECM circulator pumps, compared to 14,777 in FY2023.
- Targeted plumbing companies to educate staff on ECM circulator pumps and heat pump water heaters.
- Continued to connect weekly with all participating distributors and to track market share of heat pump water heaters and ECM circulator pumps by branch for each distributor. Used this data to target product training where market share was lowest.

FY2024 Results

Table 11: Distributor Initiatives – Electric Results

Metric	Value
Total Equipment	19,648
Efficiency Maine Costs	\$7,983,357
Participant Costs	\$801,151
Lifetime Benefits ³⁴	\$26,805,343
Benefit-to-Cost Ratio	3.05

³⁴ For detail on the energy savings values incorporated into this calculation, see [Table A-1](#).

FY2024 Analysis

For most of FY2024, the program continued to offer distributors an incentive if they would sell heat pump water heaters for no more than \$499. The program lowered this threshold to \$449 in March. The incentive has put heat pump water heaters at a lower price than traditional electric water heaters, driving considerable demand and program success. The program additionally introduced an incentive on bulk purchases of five or more heat pump water heaters to compete with manufacturer bulk pricing of traditional electric water heaters.

The program continued to focus on marketing primarily to plumbers, the primary customers of distributors, although one distributor continues to have success selling heat pump water heaters directly to consumers. Staff collaborated with plumbing companies to answer installer questions about heat pump water heaters and ECM circulator pumps; staff also worked to adjust the installer locators on the Efficiency Maine website to reflect those plumbers installing heat pump water heaters most frequently. The Distributor Initiatives also benefited from advertising campaigns promoting heat pump water heaters as part of the Retail Initiatives. With these efforts and the discounts offered, sales of heat pump water heaters continue to grow in market share.

FY2024 once again saw success in ECM circulator pump sales as the program marketed available discounts heavily to plumbers through participating distributors. During the second quarter, the program launched a limited-time promotion that targeted heating season, and the response was favorable. Temporarily increasing the discount from \$75 to \$100 motivated distributors to promote them more aggressively, and sales increased.

In FY2023, incentives for natural gas measures including natural gas on-demand water heaters and combi boilers were suspended because they were no longer cost-effective. These measures remained suspended throughout FY2024.

FY2025 Plans

- Continue to collaborate with distributors to keep heat pump water heaters at a lower price than electric resistance water heaters.
- Continue to visit distributors frequently to provide in-store support for product training, best practice sharing, in-store signage, and marketing materials.
- Continue to direct customers interested in heat pump water heaters to plumbers most likely to recommend them.
- Attempt to capture more market share and increase uptake of ECM circulator pumps, including by conducting direct outreach to plumbers and launching additional limited-time promotions.
- End tiered ECM circulator pump incentives and replace them with a standard \$75 instant discount for pumps of all sizes to simplify the program.
- Continue to coordinate with Retail Initiatives on marketing and promotions for heat pump water heaters.
- Consider a campaign to encourage homeowners to have plumbers replace working traditional electric water heaters with heat pump water heaters.

Retail Initiatives

Retail Initiatives focus on energy-saving measures that sell in relatively high volumes through retail stores and that, on average and through typical usage, achieve predictable energy savings.

The program leverages relationships with retailers to promote Efficiency Maine’s mail-in rebates or instant discounts on energy-efficient products. Of all the Trust’s programs, Retail Initiatives reach the largest number of Maine customers; this program also serves all sectors of the economy.

Retail Initiatives	
Sectors Served	<ul style="list-style-type: none"> All
Funds Invested	<ul style="list-style-type: none"> Electric Efficiency Procurement

FY2024 Activities

Following are some program activity highlights for FY2024:

- Collaborated directly with retailers to make heat pump water heaters cost-competitive with traditional electric water heaters after instant discount.
- Continued to offer customers a choice of either an instant discount for heat pump water heaters or a mail-in rebate.
- Processed 4,772 incentives for heat pump water heaters, up from 2,413 in the previous year.
- Continued the replace-on-burnout do-it-yourself (DIY) campaign consisting of price parity with traditional electric water heaters and in-store marketing.
- Executed a campaign to encourage homeowners to replace working traditional electric water heaters before they fail (“DIY early retirement”) with limited-time pricing and out-of-store marketing (email, postal mail, digital ads not tied to “water heater” searches).
- Worked with retail partners to place energy-efficient consumer products in prominent store locations and maintain adequate inventory.
- Added weekend hours for field representatives to train associates when retail locations see the most customer interactions.
- Expanded technical support hours for the heat pump water heater instant discount portal to match retail hours.
- Continued to update the online vendor locator with plumbers installing heat pump water heaters.
- Rebated 5,272 ENERGY STAR®-certified clothes washers.

FY2024 Results

Table 12: Retail Initiatives – Electric Results

Metric	Value
Total Equipment	10,054
Efficiency Maine Costs	\$7,778,697
Participant Costs	\$1,394,563
Lifetime Benefits ³⁵	\$23,977,538
Benefit-to-Cost Ratio	2.61

FY2024 Analysis

The program continued to offer in-store instant discounts at Lowe’s and Home Depot for the third year. In FY2023 Lowes offered a greater discount than Home Depot on heat pump water heaters. This year, the program convinced Home Depot to reduce their pricing to make heat pump water heaters price competitive with traditional electric water heaters. Home Depot matched Lowe’s list price making heat pump water heaters available for \$449 after Efficiency Maine’s \$950 instant discount. The program was able to get some of the lowest prices for heat pump water heaters in the country.

The program leveraged the retailers’ price decrease with a significant marketing campaign. The field team also closely monitored inventory and collaborated directly with store personnel and corporate offices to maximize inventory of heat pump water heaters in the retail locations. Despite close monitoring by the field team and collaboration with store managers, there were moments of discontinuity of the offerings—pricing inadvertently reset to national levels when product numbers changed or inventory lagged behind demand. Even with these challenges, Maine sold 13 times the number of heat pump water heaters per capita than the United States as a whole.³⁶

In FY2024 the program ran two limited-time offers. The first offer took place between January 1-March 31 and added an additional \$100 to the instant discount. The second offer took place between June 1 and June 30 and added an additional \$50 to the instant discount. Both offers drove demand to unprecedented levels.

Prompted by feedback from retailers that field team and portal support hours did not match retail hours, the team added weekend field team associate training and expanded portal technical support hours. These changes enabled retailers and customers to contact the team early mornings, evenings, and weekends, when 52% of heat pump water heaters in Maine are sold.

FY2025 Plans

- Continue to target DIY replace-on-burnout heat pump water heaters with in-store and online marketing combined with instant discounts that keep heat pump water heaters cost-competitive with traditional electric water heaters.

³⁵ For detail on the energy savings values incorporated into this calculation, see [Table A-1](#).

³⁶ According to the U.S. Environmental Protection Agency [2023 ENERGY STAR Unit Shipment and Market Penetration Report](#), there were 190,000 heat pump water heaters sold in the United States. With a population of 335 million, that equates to 0.6 units/1,000 people/year. The Trust’s programs rebate 7.6 units/1,000 people/year.

- Continue to encourage homeowners to replace working traditional electric water heaters with heat pump water heaters using limited-time offers of favorable pricing and out-of-store marketing.
- Collaborate with retailers to ensure availability and prominent in-store location of heat pump water heaters.

DRAFT

Home Energy Savings Program

The Home Energy Savings Program drives installation of home weatherization and efficient heating systems by offering rebates and loans, providing customer and vendor education, and developing and maintaining a vendor network. HESP encourages energy upgrades in single-family homes, multifamily homes with two units, and condominiums.

FY2024 Activities

Following are some program activity highlights for FY2024:

- Consistent with the Trust's other programs, launched a change to heat pump program design that limits eligibility for rebates to heat pump systems serving a whole home's heating needs. Discontinued rebates on supplemental heat pump systems through this program.
- Rebated 1,804 whole-home heat pumps under the new program design, plus 8,534 partial-home heat pump indoor units under the old program design.
- Installed the second-most heat pumps per capita of any state in the country after Vermont.
- Collaborated with the Low-Income Initiatives team to introduce a moderate-income tier for heat pump rebates in that program. (Activities and results for this new income tier are reported in the Low-Income Initiatives section, below.)
- Weatherized 1,884 homes for the full year, a significant contribution to the goals of Maine's climate action plan.
- Continued to implement a comprehensive marketing plan promoting weatherization and heat pumps in collaboration with Low-Income Initiatives.
- Presented at dozens of events and training workshops throughout FY2024, increasing program awareness among customers and contractors.
- Supported Residential Registered Vendors (RRVs) with in-person visits and monthly pro-calls. Added a heat pump field specialist position to support distributors and installers participating in the program. Ended the year with more than 800 registered vendors: 681 heat pump vendors and 74 weatherization vendors.

Home Energy Savings Program

Sectors Served

- Residential
- Multifamily (2 units)

Funds Invested

- Electric Efficiency Procurement
- Regional Greenhouse Gas Initiative
- Forward Capacity Market

FY2024 Results

Table 13: Home Energy Savings Program – Electric Results

Metric	Value
Total Participants	9,033
Total Projects	9,142
Efficiency Maine Costs	\$12,839,717
Participant Costs	\$109,256,249
Lifetime Benefits ³⁷	\$164,499,002
Benefit-to-Cost Ratio	1.35

Table 14: Home Energy Savings Program – Thermal Results

Metric	Value
	Unregulated Fuels
Total Participants	1,943
Total Projects	2,026
Efficiency Maine Costs	\$8,057,125
Participant Costs	\$18,248,187
Lifetime Benefits ³⁸	\$31,740,469
Benefit-to-Cost Ratio	1.21

FY2024 Analysis

The shift toward the “whole-home approach” marked a significant change for the program’s heat pump incentives in FY2024. This change coincided with a number of developments, including:

- Availability of a new federal tax credit for heat pumps (30% of project cost up to \$2,000), an amount that significantly exceeded the Trust’s rebate for a supplemental heat pump;
- A growing collection of case studies demonstrating that heat pumps, using the proper type, size and configuration, can heat an entire home even in extreme cold temperatures;
- Results of an evaluation showing underusage of heat pumps when they are used as supplemental systems and operated concurrently with the old central furnace or boiler; and
- Urgency to accelerate activity to reach statutory goals for the number of homes using whole-home heat pump systems by 2030, based on the targets of the climate action plan of the Maine Climate Council.

The program instituted higher incentives to reflect higher project costs (40% of project costs up to \$4,000) for a whole-home heat pump system. It also placed a strong emphasis on proper system sizing to ensure that at least 80% of the home’s heating load could be met with heat pumps, allowing for some supplementation with other sources (e.g., electric space heaters, monitor heaters, and wood stoves). Participants were required to turn off their existing central fossil fuel heating systems to ensure that they are only used as emergency backup. In homes where the existing central system is also used to

³⁷ For detail on the energy savings values incorporated into this calculation, see [Table A-1](#).

³⁸ For detail on the energy savings values incorporated into this calculation, see [Table A-2](#).

provide domestic hot water (e.g., for the sink, shower, or laundry), the central system remains on, and the program required thermostats for space heating to be turned off or all the way down.

Beginning in FY2023, Trust staff worked collaboratively with stakeholders to design the whole-home heat pump program. The Trust acknowledged that this program design shift constituted a significant departure from prior years, requiring staff to work closely with heat pump manufacturers and installers and respond to feedback rapidly. When the changes were adopted in September 2023, alongside downturn in consumer spending, the program saw a decline in rebate activity. However, as the year continued, the number of rebates climbed steadily due in part to contractor support and aggressive marketing and outreach. By the end of the year, the rate of program activity was on par with FY2023 – a record year for heat pump installations.

Following national trends, weatherization activity slowed considerably in FY2024. The program team continued to spend significant time working with weatherization contractors and tracking their backlogs. The program also supported weatherization with a robust marketing campaign that included radio, newspaper, direct mail, email, and digital advertisements.

Staff participated in dozens of workshops, events, and conferences for both homeowners and contractors. Through HESP and the Low-Income Initiatives, the Trust also increased its support for participating RRVs by providing training scholarships, matching marketing investments, and offering a program liaison service that provides regular outreach to contractors with the highest levels of program participation.

FY2025 Plans

- Continue to support weatherization projects and heat pump installations with vendor and customer outreach and incentives.
- Consider program changes to complement federal tax credits and other federal incentives; continue to leverage federal tax credits to drive program success.
- Re-launch financing for customers of all income levels seeking support for heat pump and weatherization projects through the Efficiency Maine Green Bank.

Low-Income Initiatives

The Trust delivered energy efficiency benefits to low- and moderate-income customers through a portfolio of initiatives in FY2024.³⁹ These initiatives targeted energy efficiency funding to eligible households through three channels:

- *Market-based initiatives*, where income-eligible customers participate in the same programs the Trust offers to other residential customers, and where low- and moderate-income customers may be eligible for enhanced incentives.
- *Targeted initiatives*, where the Trust focuses on specific measures, types of homes/buildings, geographic areas, pilot projects, etc., using enhanced incentives and/or facilitating project management and contractor support.
- *Direct-mail campaigns*, where eligible customers receive an offer for free DIY kits with small energy-saving devices, along with a postage-paid order form.

Low-Income Initiatives

Sectors Served

- Residential – Low-Income
- Residential – Moderate-Income
- Multifamily

Funds Invested

- Electric Efficiency Procurement
- Regional Greenhouse Gas Initiative
- Forward Capacity Market
- Federal/Other
- NECEC Settlement Funds

The resulting blend of approaches is designed to overcome some of the major obstacles to accessing cost-effective energy upgrades encountered by low- and moderate-income Mainers.

FY2024 Activities

Following are some program activity highlights for FY2024:

Market-Based Initiatives

- Consistent with the Trust's other programs, launched a change to heat pump program design that limits eligibility for rebates to heat pump systems serving a whole home's heating needs. Observed considerable uptake among income-eligible customers in the residential sector; installed 726 systems in low-income homes and 1,095 systems in moderate-income homes (1,821 total).
- Discontinued rebates for supplemental heat pumps for all customers except qualifying low-income households. For qualifying low-income households, increased the rebate for a supplemental heat pump from \$2,000 to \$4,000, capped at 80% of project costs. Observed

³⁹ Low-Income Initiatives is not the only Efficiency Maine program serving income-eligible customers; they also participate in the C&I Prescriptive Program (multifamily offerings), Retail Initiatives, Distributor Initiatives, EV Initiatives, and the Demand Management Program. For a summary of the Trust's investments in initiatives serving low-income customers specifically, see Table 24: FY2024 Low-Income Expenditures (All Funding Streams).

considerable decline in interest in supplemental heat pumps, installing 62 such systems after the introduction of the whole-home heat pump rebates.

- Collaborated with the HESP team to launch a new rebate tier for moderate-income households installing whole-home heat pump systems, aligning income-eligibility and rebate levels for both heat pumps and weatherization measures.
- Continued the expanded, market-based weatherization initiatives for low- and moderate-income households initiated in FY2022. Saw a continued acceleration of program activity, supporting upgrades in 953 homes (up from 62 in FY2021, 249 in FY2022, and 740 in FY2023).
- Discontinued the use of tax-assessed property values in establishing eligibility for moderate-income rebates, pivoting instead to using a review of adjusted gross income (AGI) for all project types. (The AGI pathway for moderate-income customers was previously applied only to weatherization projects.)
- Collaborated with HESP on an extensive marketing and outreach campaign focused on heating homes entirely with heat pumps and on promoting weatherization, targeting both homeowners and participating trade allies.

Targeted Initiatives

- Launched the Manufactured (Mobile) Home Initiative, offering incentives to low-income customers retrofitting existing fossil fuel furnaces with central heat pump systems that leverage the home's existing ductwork. Instituted a lease option for the participant's project co-pay.
- Provided incentives to support the installation of 716 heat pump water heaters in low-income homes. Of these units, 319 replaced existing electric resistance water heaters, and 397 of these units replaced fossil fuel systems that pull domestic hot water off the boiler (i.e., tankless coil water heating). Under this targeted initiative, the program covered 100% of the project costs.
- Worked with Passamaquoddy tribal leaders to rebate 50 heat pumps in their communities.
- Finalized two affordable housing projects that were awarded funding in FY2022 to build to higher energy efficiency standards as part of a High-Performance Affordable Housing Pilot.⁴⁰

Direct-Mail Campaigns

- Discontinued LED bulb offerings in the DIY energy-saving kits, leaving only faucet aerators and low-flow showerheads with thermostatic valves.
- Continued to observe a considerable slowdown in the number of DIY energy-saving kit requests and fulfillments (1,311 in FY2024 vs. 5,341 in FY2023 vs. 20,052 in FY2022), due primarily to market saturation from multiple years of direct mailings.

Other Activities

- Continued to refine the Trust's online form for verifying income-based eligibility (launched late FY2022) to help individuals access enhanced incentives. As noted above, pivoted to using the AGI pathway for moderate-income customers seeking a rebate for any project type. Also

⁴⁰ Though managed through the Low-Income Initiatives, the Trust tracks all High-Performance Affordable Housing Pilot activity and results separately under Other Initiatives.

extended the AGI verification option to the subset of low-income participants in the Manufactured (Mobile) Home Initiative.

- Continued to support the electric utilities' Arrearage Management Program (AMP) by providing participants with electricity use reports and information on energy-saving products and available incentives.⁴¹
- Supported the Innovation Program's Whole-Home Heat Pump Solutions Pilot.⁴²
- Convened quarterly meetings of the Low-Income Advisory Group (a gathering of stakeholders, including the Office of the Public Advocate, the Public Utilities Commission, low-income advocates, state and local housing authorities, tribal group representatives, utilities, and community action agencies) to collaborate on the Trust's offerings. The Advisory Group coordinated with other low-income programs and resources across the state, provided status reports on implementation, and gained valuable insights on program design and implementation.
- Raised awareness about the Trust's low- and moderate-income offerings at various events, including the Common Ground Country Fair, Resilient Harrison Maine, Maine Air National Guard Family Day, a Finance Authority of Maine meeting, an Age-Friendly Saco Lunch 'n' Learn, Sustainable Scarborough Day, MaineHousing's 2023 Affordable Housing Conference, Orono Energy Efficiency Fair, Rockland Electrification Expo, United Way of Midcoast Heating Meeting, "Tea Talks" for the Dexter Age Friendly Community, York Energy Coach Training, City of Portland Home Energy Fair, Portland Earth Day Celebration, Wiscasset Climate Action Team Earth Day Fair, Camden Talks Climate, the Northern Lights/Maine Healthcare Climate Collaborative, and municipal energy/sustainability/climate action committee meetings (Dover-Foxcroft, Freeport, Brooklin, Chebeague Island), as well as library information sessions and presentations to various Rotary and Lions clubs.

FY2024 Results

Table 15: Low-Income Initiatives – Electric Results

Metric	Value
Total Participants	2,004
Total Projects	2,004
Efficiency Maine Costs	\$1,301,279
Participant Costs	\$521
Lifetime Benefits ⁴³	\$3,407,009
Benefit-to-Cost Ratio	2.62

⁴¹ A Maine law enacted in April 2014 requires each electric utility to offer AMP initiatives. The AMP legislation was intended to help reduce the number of low-income customers in arrears on their electric bills and, therefore, lower the "bad debt" burden to ratepayers that is associated with customers who fail to pay their utility bills.

⁴² For further detail, see the [Innovation](#) section.

⁴³ For detail on the energy savings values incorporated into this calculation, see [Table A-1](#).

Table 16: Low-Income Initiatives – Thermal Results

Metric	Value
	Unregulated Fuels
Total Participants	3,882
Total Projects	3,932
Efficiency Maine Costs	\$23,962,273
Participant Costs	\$65,905,751
Lifetime Benefits ⁴⁴	\$113,583,017
Benefit-to-Cost Ratio	1.26

FY2024 Analysis

Market-Based Initiatives

The shift toward the “whole-home approach” marked a significant change for the market-based initiative for heat pumps in FY2024. As described elsewhere in this report, this change coincided with a number of developments that convinced the Trust it was an appropriate time to implement a shift in the program design.⁴⁵ The program instituted higher incentives to reflect higher project costs and added a moderate-income pathway for heat pumps (the pathway recognizing moderate-income status and offering correspondingly elevated rebates was previously limited to weatherization projects). The program offered 60% up to \$6,000 for moderate-income customers and 80% up to \$8,000 for low-income customers.

The program also placed a strong emphasis on proper system sizing to ensure that at least 80% of the home’s heating load could be met with heat pumps, allowing for some supplementation with other sources (i.e., electric space heaters, monitor heaters, and wood stoves). Participants were required to turn off their existing central fossil fuel heating systems to ensure that they are only used as emergency backup, unless they are using the central system for domestic hot water. Though this program design change was met with some resistance from RRVs at the outset, the Trust was able to gain buy-in through diligent outreach and education, and by responding to constructive feedback. As noted above, the program saw considerable uptake among income-eligible customers, who constituted more than half of all residential installations over the course of the year. The new moderate-income pathway was particularly popular and likely resulted in a shift of activity from the HESP to Low-Income Initiatives in FY2024.

As noted above, the Trust continued to provide supplemental heat pump rebates to low-income customers only. It did so on the presumption that these households are less likely to have a tax liability and therefore may not be able to take advantage of the new federal tax credit on heat pumps. Interestingly, despite increasing the associated rebate from \$2,000 to \$4,000 (capped at 80% of project costs), the Trust observed considerable decline in activity; the program issued 62 rebates for supplemental systems during the six months the offering was active in FY2024. Eligible homeowners

⁴⁴ For detail on the energy savings values incorporated into this calculation, see [Table A-2](#).

⁴⁵ See, for example, the [FY2024 Analysis](#) section of the Home Energy Savings Program chapter.

were far more attracted to the generous whole-home rebates of 80% up to \$8,000, completing 1,827 comprehensive heat pump projects.

Interest in the market-based weatherization initiative continued to grow, with 904 homes weatherized in FY2024 (up from 740 homes in FY2023). This pace of activity helps put Maine on track to meet the weatherization goals of the state's climate action plan by 2030. The Trust continued to leverage federal ARPA funds through the MJRP to support these weatherization projects.⁴⁶

Targeted Initiatives

The Manufactured (Mobile) Home Initiative experienced a smooth transition from Innovation pilot to full program offering under Low-Income Initiatives in FY2024. In its current iteration, the initiative incentivizes ducted heat pumps in single-wide homes in and south of Bangor.⁴⁷ The program completed 70 installations over the course of the year and generated a healthy pipeline of interested homeowners for FY2025. The Trust also worked to recruit additional RRVs, with 15 installers expressing interest in participating in FY2025 (up from 5 in FY2023). Maine has garnered national attention for this initiative, amplified by the plan to deploy federal funds from the Inflation Reduction Act Home Energy Rebates program to expand the effort.

In FY2024, low-income households accessed heat pump water heaters either through the program's initiative that provided free units for eligible customers or by purchasing discounted units at local retail stores such as Lowe's or Home Depot. The purchases from retail stores are reported on in the Retail Initiatives section. Roughly 45% of the program's incentives for heat pump water heaters in FY2024 were for projects that replaced electric resistance water heaters and 55% replaced tankless coil systems for water heating.

Direct-Mail Campaigns

As noted above, the program observed a considerable slowdown in the number of requests for DIY energy-saving kits in FY2024. In FY2022, the program sent repeated mailings of business reply cards to the full list of participants in the Home Energy Assistance Program (HEAP) and programs managed by the U.S. Department of Health and Human Services (DHHS). Given that, it is likely that the program satisfied most of the demand from the eligible pool. Furthermore, by shifting DIY kit offers away from broad mailings of business reply cards to an automated approach through the online eligibility verification process in FY2023, the Trust may have reached a smaller universe of households expressing interest in its programs. Finally, it is likely that these kits became less attractive to customers when LED bulbs were discontinued.

⁴⁶ For additional detail, see [Appendix F: Maine Jobs and Recovery Plan Initiatives](#).

⁴⁷ The Trust continued to pilot different permutations of whole-home heat pumps in manufactured (mobile) homes through the Innovation Program in FY2024 (e.g., different equipment, "double-wide" homes, and northern regions of the state). Depending on the results of these studies, the Trust may expand the Manufactured (Mobile) Home Initiative offerings in the future.

Other Activities

In FY2022, the Trust added an online form that individuals can use to request Efficiency Maine verification of their income eligibility to receive higher incentives offered through the program. The form initially included two pathways for income-based eligibility: participation in HEAP and demonstration of tax-assessed property values below county-based thresholds set by Efficiency Maine. The Trust verified eligibility, providing individuals with a formal confirmation letter. This simplified the process for the individual and provided a way to participate even if they had not received, or had lost, a direct-mail offer. The approach also helped Efficiency Maine pursue a broad marketing and outreach campaign, which generated significant interest.

Late in FY2022, and in collaboration with DHHS, the Trust expanded the number of pathways to also include participation in the Supplemental Nutrition Assistance Program (SNAP) for food assistance, Temporary Assistance for Needy Families (TANF) for cash assistance, or MaineCare for medical insurance coverage.⁴⁸ Using the form, individuals provide sufficient information for DHHS to verify participation; upon receiving verification from DHHS, the Trust then sends the customer confirmation that they can participate in the program. In FY2023, the Trust added yet another pathway for moderate-income households to confirm eligibility for certain offerings based on an AGI threshold, as demonstrated through a tax transcript from the Internal Revenue Service.

As noted above, the Trust discontinued the use of tax-assessed property values in establishing eligibility for moderate-income rebates in FY2024, pivoting instead to using the AGI pathway for moderate-income customers seeking a rebate for any project type. It also extended the AGI verification option to the subset of low-income participants in the Manufactured (Mobile) Home Initiative. The Trust started exploring opportunities for more automated income verification tools (i.e., Application Programming Interface [API] integrations), and will extend the AGI verification pathway to all customers when it can take advantage of this streamlined administrative process. Before AGI can be used to qualify customers for upgrades funded by electric procurement, the Trust will need to complete a rulemaking process to change the definition of “low-income residential customer” in Chapter 3 of the Trust’s rules.⁴⁹

Overall, the Trust processed 9,825 verification requests through the online form in FY2024 (up from 5,701 in FY2023): 24% through the HEAP pathway, 29% through the DHHS program pathway, 45% through the AGI pathway, and 1% through the property value pathway. The online form proved to be a key asset to the program; it created a streamlined customer experience, eliminated the Trust’s dependence on direct mailings using the DHHS mail house, and helped RRVs support their customers and receive rebates more quickly.

Enrollments in AMP remained relatively steady in FY2024. The program continued to provide electricity usage assessments, energy-saving tips, and offers for energy-saving devices to 100% of new AMP enrollees. As noted above, the Trust phased out LED bulb offerings in the DIY energy-saving kits, leaving

⁴⁸ The Trust began collaborating with DHHS to reach low-income households receiving assistance through these other means-tested programs in FY2019. Prior to launching this streamlined online process, the Trust provided physical outreach materials to DHHS to send to its mailing list.

⁴⁹ See 95-648 Code of Maine Rules (CMR) ch. 3.

low-flow showerheads with thermostatic valves and faucet aerators only. The program continued to assess which AMP customers may benefit from installation of a heat pump water heater, replacing 42 electric resistance water heaters for AMP enrollees in FY2024.

FY2025 Plans

- Drive demand for high-performance heat pumps in income-eligible homes to help meet Maine’s statutory goal of having at least 115,000 households in the state wholly heated by heat pumps and an additional 130,000 households in the state partially heated by heat pumps by 2030.⁵⁰
- Continue to advance the market-based weatherization initiative to support Maine’s goal to weatherize at least 10,000 low-income households through the combined efforts of the Trust and MaineHousing between 2020 and 2030.⁵¹
- Launch an expanded Manufactured (Mobile) Home Initiative to invest new, dedicated federal funds from the Inflation Reduction Act Home Energy Rebates program and the Energy Improvements in Rural or Remote Areas program.
- Coordinate with the Maine Department of Environmental Protection to incentivize participants in the Manufactured (Mobile) Home Initiative, if they so choose, to remove their oil tanks after their heat pump has been installed.
- Explore options for more automated income verification tools (i.e., API integrations.)
- Continue to work with MaineHousing to provide an education and outreach program to residents of manufactured homes to increase awareness of the Trust and MaineHousing’s offerings.⁵²

⁵⁰ 35-A MRS §10104(4)(F)(7). This goal was established by the Maine Climate Council in 2020 and codified in statute by the 130th Legislature in 2021.

⁵¹ 35-A MRS §10104(4)(F)(2). This goal was established by the Maine Climate Council in 2020 and codified in statute by the 130th Legislature in 2021.

⁵² For additional detail, see [Appendix G](#).

Electric Vehicle Initiatives

The Trust administers programs to expand availability of electric vehicle (EV) charging infrastructure (also referred to as EV supply equipment) and the adoption of EVs in Maine. The Trust's programs provide grants to fund the installation of EV charging infrastructure in Maine and rebates for eligible vehicles.

FY2024 Activities

Following are some activity highlights for FY2024:

Charging

- Reviewed, awarded, and contracted over \$10 million to 18 direct-current (DC) fast-charging projects at Maine destinations and along priority corridors in locations including Millinocket, Ellsworth, and Newport.
- Collaborated on Maine's Updated Plan for EV Infrastructure Deployment (Maine's NEVI Plan).
- Collaborated with MaineDOT on a second application for Charging and Fueling Infrastructure (CFI) Discretionary Grant Program funds.
- Launched four competitive solicitations to begin to invest a previously awarded \$15 million in CFI funds.

Vehicles

- Provided a total of 1,206 EV rebates in FY2024.
- Of the total rebates, 702 were for battery electric vehicles (BEVs) and 504 were for plug-in hybrid electric vehicles (PHEVs). In addition to the number of standard rebates that were used by individual consumers, specially targeted rebates went to 41 governmental entities; 72 low-income customers; 127 moderate-income customers; and 20 commercial and non-profit customers.
- Launched an electric bike (e-bike) pilot program to support entities that serve low-income individuals and awarded grants for three pilot projects.
- Educated participating dealers on the clean vehicle federal tax credits.
- Conducted regular visits to dealerships to build relationships with and gather feedback from dealership staff.

Education, Marketing, and Stakeholder Engagement

- Participated in a DC fast-charger (a.k.a., Level 3 charger) ribbon cutting in Lewiston and the groundbreaking and unveiling of fast chargers at the Rockland Hannaford, among the first chargers developed in the country with National Electric Vehicle Infrastructure (NEVI) funds.
- Launched a public service announcement campaign on radio and social media about EVs and EV charging.

Electric Vehicle Initiatives

Sectors Served

- All

Funds Invested

- Volkswagen Settlement Funds
- NECEC Settlement Funds
- Federal Funds
- State General Fund

- Expanded a Google Ads campaign, which brought in 13,600 visits to program webpages in FY2024.
- Developed and disseminated new brochures, floor signs, window clings, and table tents for Efficiency Maine Participating EV Dealers.
- Hosted or participated in EV workshops, conferences, and ride-and-drive events, including the Common Ground Country Fair, Curtis Memorial Library EV event, Portland and South Portland's National Drive Electric Week, Rockland Electrification Expo, Green & Healthy Maine HOMES Energy Show and EV Expo, Wells Library Community Event, and Scarborough Sustainability Day.
- Presented program updates and federal funding briefings at stakeholder meetings hosted by Drive Electric Maine, the Transportation Strategic Advisory Group, and local climate action groups.

FY2024 Results

Table 17: EV Initiatives – EVSE Results⁵³

Metric	Value
Total Level 2 Plugs Awarded	0
Total Level 3 Plugs Awarded	83
Efficiency Maine Costs ⁵⁴	\$1,959,302

Table 18: EV Initiatives – Rebate Results

Metric	Value
Total EV Rebates	1,206
Efficiency Maine Costs	\$2,635,373
Participant Costs ⁵⁵	\$14,744,190
Lifetime Benefit ⁵⁶	\$31,767,191
Benefit-to-Cost Ratio	1.83

FY2024 Analysis

In FY2024, the Trust launched and awarded two rounds of competitive solicitations for public DC fast chargers along priority corridors, as well as launched and awarded solicitations for public DC fast chargers within communities across the state. The Trust also worked with site developers and host sites to help them complete 47 Level 2 EV charging projects awarded in the previous fiscal year. These efforts invested federal funds from three different federal awards.

⁵³Elsewhere in this report, the Trust includes EV Initiatives' EVSE metrics with Other Initiatives and EV Initiatives' rebate metrics with Major Programs (see, e.g., Table 21 and Table C-3). The reason is that, while EV chargers are critical infrastructure for promoting the increased use of EVs, unlike all other Major Programs, chargers do not, by themselves, save energy. Nevertheless, because EVSE is such an integral element of the Trust's EV Initiatives, descriptions of the associated FY2024 activity are included in the EV Initiatives chapter in the Major Programs section.

⁵⁴ The costs reported here reflect amounts paid out during FY2024. They do not reflect amounts that were awarded in FY2024 but will not be paid out until the next fiscal year.

⁵⁵ Participant Costs reflect the customers' share of the incremental costs to purchase the vehicle, new electricity costs associated with charging those EVs, and avoided maintenance costs.

⁵⁶ For detail on the energy savings values incorporated into this calculation, see [Table A-2](#).

To invest the \$15 million in Charging and Fueling Infrastructure Discretionary Grant Program Funds awarded in March 2024, the program launched a call for Level 2 projects at community locations, multifamily buildings, large workplaces, and regional services centers at the end of FY2024. All of these charging projects are part of “Recharge Maine,” the Trust’s ongoing collaboration with MaineDOT, GEO, the Governor’s Office of Policy Innovation and the Future (GOPIF), and the Maine Department of Environmental Protection (DEP) to expand availability of public charging infrastructure.

The second focus of the Trust’s EV Initiatives is to directly incentivize the adoption of EVs in Maine. In FY2024, the Trust offered instant discounts through participating car dealers in Maine and rebates for vehicles purchased directly from the manufacturer. The program offered enhanced incentives for qualified low- and moderate-income Maine residents, Maine governmental entities, tribal governments, and select non-profits. Notably, the number of low-income and moderate-income rebates provided through the program increased by more than 100% over the previous fiscal year.

To support these efforts, staff participated in dozens of dealer visits, “ride and drives,” and other outreach events across the state, including several EV charger groundbreaking and ribbon-cutting events. The program also developed new dealer training and marketing materials and launched an awareness campaign on EVs and EV charging on Google search, social media, and Maine radio stations.

Finally, the Trust was directed by the Maine Legislature to explore incentivizing electric bikes for low-income and moderate-income Mainers and for entities that serve those individuals. In response, the Trust launched a competitive solicitation for e-bike projects from organizations serving low-income Mainers. Three applicants—Lewiston Housing Authority, Portland Housing Authority, and South Portland Housing Authority—were awarded grants. The Trust will review the findings from the pilot projects to consider future e-bike initiatives.

FY2025 Plans

- Continue to support EV charging infrastructure planning through the Recharge Maine Initiative.
- Continue to administer competitive solicitations to invest federal funds for DC fast chargers and Level 2 chargers.
- Continue to support the installation and commissioning of DC fast charger and Level 2 sites funded in previous fiscal years.
- Continue to grow EV rebate uptake among low- and moderate-income customers, businesses, and government entities.
- Evaluate EV rebate trends and available budget and make program changes, as appropriate.
- Continue to educate participating dealers and the public on the benefits of transitioning to electric vehicles.
- Develop and launch medium- and heavy-duty EV demonstration projects.

Demand Management Program

The Demand Management Program seeks to increase the efficiency of energy use in Maine by deploying measures and strategies that mitigate the impacts of peak demand on electricity utility transmission and distribution (T&D) systems and balance the increased penetration of intermittent renewables on the grid. In FY2024, the program consisted of two discrete initiatives:

Demand Management Program

Sectors Served

- All

Funds Invested

- Electric Efficiency Procurement

- *Demand Response Initiative*: A traditional demand response program where participants are compensated for reducing their electricity usage when called upon to do so. This typically occurs during periods of peak demand that drive system costs. Third-party curtailment service providers (CSPs) recruit end-user participants and manage all aspects of participation in demand response events and reporting to the Trust.
- *Load Shifting Initiative*: An initiative focused on using both passive and active load-shifting strategies across fleets of devices. These load-shifting measures are a form of “distributed energy resource” or “DER” that are programmable and, in some cases, networked, operating in response to internal or remote signals.

FY2024 Activities

Following are some program activity highlights for FY2024:

Demand Response Initiative

- Worked alongside CSPs and other programs in the Northeast to remove some significant barriers of entry for large commercial customers who wanted to participate but were ineligible due to behind-the-meter generation.
- Reduced the 2023 summer capacity season peak by 11.49 MW through three dispatches based on validated results.
- Approved three CSPs for the 2024 summer capacity season (June 1, 2024 – September 30, 2024).
- Enrolled a total of 177 participants through CSPs.

Load Shifting Initiative

- Worked closely with Virtual Peaker, the Trust’s Distributed Energy Resource Management System (DERMS) provider, to enroll devices for in preparation for the 2024 summer capacity season.
- Launched residential and commercial small battery management measures and enrolled the first batteries; by the end of FY2024, 131 small batteries were enrolled for the 2024 summer capacity season (which will be reported in next year’s annual report), surpassing the program’s goal for both FY2024 and FY2025.

- Launched residential managed EV charging measures; by the end of FY2024, 99 vehicles and chargers were enrolled for the 2024 summer capacity season.
- Launched Technical Assistance funding for Energy Storage System projects and added two large batteries: Bowdoin College (3 MW) and Portland Jetport (1.9 MW).

FY2024 Results

The results for the Demand Management Program recorded in this annual report derive from activity conducted from June 1 through September 30, 2023, which is referred to as the 2023 summer capacity season throughout this chapter. This period straddles the end of FY2023 and the start of FY2024. Since the results of the activity were not validated until the autumn of 2023 and the incentive payments were made at that time (i.e., during FY2024), they are reported in this annual report in connection with FY2024.

While there was activity during FY2024 in the Load Shifting Initiative as noted above, including enrolling more than 200 customers before the 2024 summer capacity season, the performance of those enrollments was not validated until the autumn of 2024. As a consequence, the results for that activity, including the costs and benefits, will be reported in the Trust's FY2025 Annual Report and are not factored into the results reported here.

Table 19: Demand Management Program – Electric Results

Metric	Value
Total Participants ⁵⁷	228
Efficiency Maine Costs	\$660,680
Participant Costs	-
Lifetime Benefits ⁵⁸	\$5,391,182
Benefit-to-Cost Ratio	8.16

FY2024 Analysis

Demand Response Initiative

Enrollment in the Demand Response Initiative for the 2023 summer capacity season was so strong that it encumbered the full FY2024 budget well in advance of the 2023 summer capacity season. The Trust's Board approved a budget increase, enabling CSPs to enroll additional participants. These additional participants brought the total enrolled curtailable load to 16.04 MW.

CSPs called a total of three events during the 2023 summer capacity season and successfully forecasted the New England system peak on September 7, 2023. The program was able to capture 11.49 MW, a roughly 4 MW increase compared to the 2022 summer capacity season.⁵⁹ Program achievement rates improved in the second year of this program as participants became more familiar with the process and

⁵⁷ "Participants" as used here means customers enrolled by CSPs and customers who actively participated in the Load Shifting Initiative.

⁵⁸ For detail on the energy savings values incorporated into this calculation, see [Table A-1](#).

⁵⁹ The program compensates CSPs for actual, validated savings only.

CSPs adjusted their portfolios to better match actual participant performance. The Trust will continue to monitor these metrics in the year ahead as the program matures.

In February of FY2023, the Trust launched a Program Opportunity Notice for CSPs and pre-qualified three CSPs to operate in the Trust's Demand Response Initiative program for the 2024 summer peak capacity season. By the end of FY2024, the three CSPs had enrolled 16.04 MW of curtailable load with an additional 10 MW in the pipeline for enrollment in the beginning of FY2025, to participate in the summer 2024 capacity season. CSPs called the first demand response event of the summer on June 20, 2024.

Load Shifting Initiative

The program officially started offering incentives for small battery management in FY2024. Eligibility for the measure was limited to batteries that have an inverter size of no greater than 20 kilowatts (kW) and are sited at customers (both residential and commercial) on volumetric rates. These batteries are dispatched between 15 and 60 times per summer when demand on the electric grid is forecasted to be at its highest. Each dispatch, or demand response event, lasts no longer than three hours. The program does not call events on holidays, weekends, or within two days before major storms. Participants are paid \$100 per kilowatt of verified, continuous discharge during the system peak of the Independent System Operator for New England (ISO-NE). Without this initiative, customers have no incentive to dispatch their batteries on the grid during peak events.

The program surpassed its goal of 120 enrollments within the first month of the 2024 capacity season, a full year ahead of schedule. By the end of FY2024, 131 small batteries were enrolled. Staff worked closely with the DERMS provider as well as original equipment manufacturers (OEMs) to ensure that batteries were responding to events and discharging to the grid. Staff will evaluate the performance of batteries over the 2024 capacity season and issue incentives in the second quarter of FY2025.

FY2024 also saw the continuation of managed charging for EVs charged at their owners' homes (i.e., residential). This measure is limited to equipment (and vehicles using that equipment) that consumes between 2.8 kW and 19.2 kW of power. This equipment is often called a Level 2 charger. For EV chargers, participants can choose between two pathways: charging management via hardware-based controls on a home charger or charging management via integrated controls within the EV (known as "telematics"). Like the small battery charging initiative, electric vehicles respond to demand events and delay their charging until the event is over and demand on the electric grid is low. Participants receive an initial \$50 upon enrollment in the program and an additional \$50 per year for each year that they continue participating. By the end of FY2024, 99 vehicles and chargers had been enrolled. Staff will continue to enroll customers throughout the year on a rolling basis.

The program leveraged existing relationships with the vendor network and existing program materials to support the launch of these incentives. Staff coordinated with various vendors throughout the state to market this program more directly to customers who have already installed battery arrays and EV chargers. The Trust recognizes that the current program is not able to capture the full potential of EV

types and charging market sectors, and plans to focus efforts on launching a new approach in the future that is outlined in Triennial Plan VI.

In addition to launching the small battery and EV DER measures, the Energy Storage System Innovation Pilot Project transitioned to the Demand Management Program and became part of the Load Shifting Initiative. The program also launched Technical Assistance funding to Energy Storage System Program projects to offset the costs of system design and interconnection studies. In FY2024, The Trust awarded two Energy Storage System projects: Bowdoin College (3 MW) and Portland Jetport (1.9 MW).

FY2025 Plans

Demand Response Initiative

- Oversee an expanded portfolio for the 2024 summer capacity season, with 25.71 MW of curtailable load (vs. 16.04 MW in FY2024).
- Collect CSP feedback mid-year with the goal of improving program design for the 2025 summer capacity season.

Load Shifting Initiative

- Continue to enroll customers in the managed EV charging measure on a rolling basis.
- Open enrollment for small battery management for the 2025 summer capacity season.
- Continue to boost outreach to battery manufacturers to ensure diversity of vendors and model options for small batteries.
- For the 2025 summer capacity season, transition to Triennial Plan VI offerings that involve intervening at the time a customer is purchasing new equipment (EVs, EV chargers, small batteries).

Other Initiatives

In FY2024, the Trust spearheaded the implementation of several miscellaneous initiatives, some of which leverage or supplement the Trust's existing programs, and others that stand on their own with unique characteristics. A brief description of these initiatives follows.

Efficiency Maine Green Bank

In 2012, the Trust launched its first suite of loan products helping Mainers to finance clean energy and energy efficiency projects in their homes, followed in subsequent years by the introduction of loans and lease products catering to small businesses, municipalities, schools, and low-income households. In 2021, the Maine Legislature enacted Public Law, Chapter 358, authorizing the establishment of a more comprehensive financing program at the Trust.⁶⁰ Collectively, these financing initiatives are administered under the umbrella of the Efficiency Maine Green Bank. Efficiency Maine Green Bank initiatives are generally designed to drive private capital into market gaps for energy efficiency and clean energy equipment and services. These initiatives serve as an important complement to the Trust's other financial incentives (e.g., rebates, instant discounts) and technical assistance to Maine's residents, businesses, and institutions.

In late 2022, Congress passed the Inflation Reduction Act. A provision of the IRA authorized the U.S. Environmental Protection Agency (EPA) to implement the Greenhouse Gas Reduction Fund (GGRF), a historic \$27 billion investment to facilitate development of energy efficiency and clean energy projects. EPA awarded funds through three grant competitions in 2024: the \$14 billion National Clean Investment Fund (NCIF), the \$6 billion Clean Communities Investment Accelerator (CCIA), and the \$7 billion Solar for All (SFA) competition. The Trust aligned with one lead applicant in the NCIF competition—the Coalition for Green Capital—which was one of three proposals nationally to receive an award from EPA. The Trust is projecting that approximately \$15 million of this grant will be directed to support the Efficiency Maine Green Bank beginning in FY2025.

In FY2024, the Trust worked to expand the Efficiency Maine Green Bank's finance initiatives and administrative capacity to deploy the injection of new federal capital from the GGRF into qualifying energy projects in Maine. The new funds are expected to double the size of the Efficiency Maine Green Bank's portfolio, enabling new offerings while also bringing more complex administrative requirements. In order to support this expansion, the Trust commissioned a new online lending platform and brought on a new provider for lending services. Trust staff also fostered strong relationships with members of the green bank community from across the country, helping to organize a negotiating block for GGRF implementation and to establish a network for exchanging experiences and best practices. The Trust also continued to explore opportunities to leverage third-party capital through Maine's local lending community (e.g., community banks and credit unions) to supplement the Efficiency Maine Green Bank's

⁶⁰ Public Law, Chapter 358, 130th Maine State Legislature, First Special Session, LD 1659, An Act To Create the Maine Clean Energy and Sustainability Accelerator.

investments after GGRF funds are fully deployed. Staff fostered valuable working relationships with a number of local contacts, orienting potential partners and seeking feedback on program design options.

In addition to planning for expansion during FY2024, the Trust continued to manage its existing finance initiatives. The full suite of Efficiency Maine Green Bank offerings and related FY2024 activity is described in the subsections below.

Home Energy Loans

The Trust leverages its Residential Revolving Loan Fund⁶¹ to offer home energy loans that help homeowners pay for energy upgrades, currently without borrower fees and with relatively low interest rates. The loan types include Property Assessed Clean Energy (PACE) loans, which are secured by a lien on a property, and unsecured Home Energy Loans. In early FY2023, as market interest rates rose, demand for these relatively low-interest loans began exceeding historical patterns and depleting the pool of available capital. In response, the Trust restricted availability of residential loans to income-eligible applicants at the half-way point of FY2023 and maintained this limitation throughout FY2024.

Over the course of FY2024, the Trust loaned approximately \$1.12 million to residential customers who took advantage of rebates through Low-Income Initiatives (plus one loan for a borrower who received a HESP rebate). These loans facilitated 265 projects, most of which involved the installation of heat pumps.⁶² All loans were unsecured Home Energy Loans; the Trust did not issue any PACE loans in FY2024.

Small Business Energy Loans

In FY2024, the Trust used its Small Business Loan Fund to offer loans to businesses participating in the Small Business Initiative (SBI)—a targeted initiative of the C&I Prescriptive Initiatives. Consistent with SBI requirements, any business having a peak electrical demand of 50 kW or less can access this financing to help in upgrading to high-performance heat pumps and VRF systems. In FY2024, the Trust loaned \$2,462 for one project with a small business customer. Staff is exploring ways to expand the types of eligible projects, term lengths, interest rates, and maximum loan amounts to further help small businesses.

Commercial Property Assessed Clean Energy

C-PACE is a financing model that enables a commercial property owner to place a special assessment on their property to finance energy efficiency upgrades and renewable energy installations. This assessment is collected through the municipal property tax bill. In 2021, the Legislature enacted LD 340, An Act To Allow for the Establishment of Commercial Property Assessed Clean Energy Programs, enabling municipalities in Maine to establish this type of offering in their jurisdictions through passage

⁶¹ The Residential Revolving Loan Fund was originally capitalized with federal funds from the American Recovery and Reinvestment Act in 2010. It has since been supplemented with RGGI funds.

⁶² When the Trust limited eligibility to income-eligible applicants in FY2023, a number of *any-income* projects remained in the pipeline (signed loan agreements, not yet completed/funded). One (1) of the 265 loans issued in FY2024 was to an any-income borrower from this pipeline whose loan came to fruition during the fiscal year. The Trust did not initiate any *new* any-income loans in FY2024.

of a local ordinance.⁶³ The legislation authorizes the Trust to administer a C-PACE program. It allows a C-PACE loan to cover up to 100% of the cost of a qualifying energy-saving improvement, including audits, project development, and application fees.

The Trust launched the C-PACE program in FY2023 and worked with interested municipalities and capital providers to recruit their participation. The first municipalities to opt in to the program passed their ordinances in early FY2024. Throughout the fiscal year, the Trust continued to meet with interested municipalities and local lenders to facilitate their understanding and adoption of the program. By the end of the year, the Trust had onboarded 11 participating municipalities and 3 registered capital providers. The program approved its first project application in March.

Municipal Lease

A municipal lease, sometimes referred to as a tax-exempt lease purchase, is a contract that allows an entity to obtain the use of equipment without incurring debt. A municipal lease is an effective alternative to traditional debt financing (e.g., bonds, loans) because it allows a public organization to pay for energy upgrades by using funds already set aside in its annual operating budget. This arrangement enables the government entity to use utility bill savings to help pay for the financing costs on the lease. This mechanism lowers the upfront cost of a project (typically to \$0), spreads the costs of the project over several years, and leverages tax-exempt interest rates.

The Trust launched a municipal lease offering near the end of FY2023. Through this finance initiative, the Trust pairs eligible Efficiency Maine program participants with private, Maine-based lenders that provide this type of financing. Eligible participants include Maine municipalities or public PreK-12 schools (or school districts) under the Maine Department of Education. The Trust did not see any activity in this initiative in FY2024.

Manufactured (Mobile) Home Initiative Lease

As described in the Low-Income Initiatives section, the Manufactured (Mobile) Home Initiative provides incentives for whole-home heat pump system retrofits in manufactured homes. In FY2024, the Trust provided a lease option for customers to cover their 20% share of upfront project costs. Participants leased the equipment either with a single up-front payment of \$2,000 or 50 monthly payments of \$50. After the payment obligations have been completed, the participant has the option to purchase the equipment for \$1. Additionally, the Trust fully warrants the working operation of the heat pump during this lease period. Over the course of the year, 70 participants enrolled in the initiative; 31 selected the up-front payment option, and 39 selected the monthly payment option. The Trust plans to transition this offering to a loan (instead of a lease) in FY2025, requiring that installers provide customers a full five-year parts and labor warranty. The loan approach more clearly establishes customer ownership of the equipment from the beginning.

⁶³ Public Law, Chapter 142, 130th Maine State Legislature, First Special Session, LD 340, An Act To Allow the Establishment of Commercial Property Assessed Clean Energy Programs.

Non-Wires Alternatives

In 2019, the Legislature enacted LD 1181, An Act to Reduce Electricity Costs through Nonwires Alternatives, amending the process for planning and approving investments in the electric utilities' T&D systems.⁶⁴ The law established a formal, independent process for the consideration of non-wires alternatives (NWAs) by the Maine Public Utilities Commission, and an NWA coordinator (NWAC) position within the Office of the Public Advocate (OPA) to review annual plans and individual project proposals.⁶⁵ As part of the process, the Trust was assigned to develop and deliver all customer-sited NWA resources (such as energy efficiency or energy storage) that are determined to be more cost-effective than the proposed T&D system investments.

In FY2024, the Trust and the NWAC worked jointly to implement and refine procedures to efficiently review the utilities' investment plans for their T&D systems. The NWAC had a total of 51 projects under review between Central Maine Power (CMP) and Versant. Of those, the NWAC completed its review of 27 projects. The vast majority of those projects were expeditiously returned to the utility with no cost-effective NWA identified. There was one case where the NWAC's independent electrical engineers identified savings of \$3.6 million to \$6.1 million from a project where the NWA review process determined a component of the upgrade was not needed and could be deferred until asset condition concerns necessitated a rebuild.

The Trust did not identify any behind-the-meter solutions that were cost effective in FY2024.

The NWA-related cases that were active in front of the PUC in FY2023 included:

- Docket No. 2020-00125 – Commission Initiated Inquiry of the Nonwires Alternatives Investigation Process; and
- Docket No. 2019-00309 – Request for Approval of Section 31 Rebuild Pertaining to Central Maine Power Company;
- Docket No. 2023-00268 – Investigation into Highland Substation and Related Mid-coast Transmission Needs; and
- Docket No. 2020-00125 – Commission Initiated Inquiry of the Nonwires Alternatives Investigation Process.

The Trust, the NWAC, and CMP revisited the NWA proposed for the Section 31 rebuild around Brunswick in light of accelerating local EV adoption. EMT and CMP's analysis confirmed that EV adoption rates in the area are higher than the state average, and would likely drive summer peak load beyond the threshold of the NWA. The Trust specifically examined the efficacy of managed charging to avoid the peak and, based on a review of leading programs, concluded that a managed charging program will not

⁶⁴ Public Law, Chapter 298, 129th Maine State Legislature, First Regular Session, LD 1181, An Act to Reduce Electricity Costs through Nonwires Alternatives.

⁶⁵ 35-A MRS §3131-3134.

result in sufficient peak savings to avoid the needed upgrade. As a result, CMP, OPA, and EMT agreed to a replacement stipulation that the PUC accepted on June 26, 2024.

Renewables

For the past decade, the Trust administered the Renewable Energy Demonstration Grants program to support the promotion, research, design, and demonstration of emerging clean energy technologies. The initiative was funded by EERRF, a revenue stream composed of voluntary contributions from electric ratepayers, as well as funds from electricity suppliers that elect to meet their renewable portfolio standard obligations through alternative compliance payments (ACPs).⁶⁶ Projects were selected through a competitive bidding process; grant awards were provided for applications of renewable energy technologies that demonstrate uses for renewable technologies and that support community facilities. Past projects have included solar photovoltaic installations, solar hot-air systems, biomass boilers, and district heating. The last request for proposals (RFP) was issued in FY2018; the Trust finalized one remaining project awarded under that RFP in FY2022.

In FY2023, the Legislature enacted LD 187, An Act to Eliminate the Energy Efficiency and Renewable Resource Fund and to Provide Needs-based Low-income Assistance.⁶⁷ This bill emerged from a legislative recommendation in the Trust's FY2022 Annual Report. There, the Trust noted that revenue from the fund had been so low and sporadic that for several years in a row it had insufficient funds to make a competitive solicitation worthwhile. The Trust also pointed out that Maine's policies to promote renewable energy have evolved to dwarf what the fund could offer. Arguably, the costs of the Trust to administer these funds, and of the utilities to collect and remit them, outweigh the benefits of the program. The Legislature agreed with this assessment; LD 187 discontinued the EERRF, eliminated the voluntary ratepayer contributions, and redirected future ACP revenues to the T&D utilities to provide financial assistance to low-income households.

With the passage of this bill, the Trust sought to invest the remaining EERRF fund balance for a constructive purpose consistent with the statutory provisions and the rules of the EERRF. To that end, the Trust decided to use EERRF funds to rebate the equipment costs associated with additional retrofits of heat pump/storage tank systems through the Innovation Program's Hydronic Heat Pump with Thermal Storage Pilot.⁶⁸

Lead by Example Initiative

In FY2022, the Trust coordinated with the Bureau of General Services (BGS), GEO, and GOPIF to launch an initiative to promote the increased installation and use of clean, cost-effective energy measures at

⁶⁶ See 35-A MRS §10121.

⁶⁷ Public Law, Chapter 306, 131st Maine State Legislature, LD 187, An Act to Eliminate the Energy Efficiency and Renewable Resource Fund and to Provide Needs-based Low-income Assistance.

⁶⁸ For more information on this pilot, see the [Innovation](#) section.

state properties. The Trust refers to this as the “Lead by Example” Initiative.⁶⁹ Per a Memorandum of Understanding (MOU) between the Trust and the Office of the Attorney General for the State of Maine and the Commissioner of the Department of Administrative and Financial Services (DAFS), the Trust was initially authorized to use approximately \$3.7 million in Volkswagen Settlement Funds to support this initiative. The Trust’s role under the initiative is to provide initial project screening, technical assistance, and enhanced financial incentives for energy upgrades at state properties. The Trust has focused its efforts on cost-saving, and carbon-saving, projects to convert Maine state buildings currently heated with oil or propane to heat pump-based systems.

In FY2024, the Trust made awards for equipment upgrades at three facilities and approved technical assistance funding for projects at an additional four facilities. The Department of Education was awarded a total of \$191,652 to install a multi-zone VRF system and electric hot water heaters at the Edmunds Consolidated School located in Dennysville, offsetting the use of fuel oil and propane used for space and water heating. The Maine Army National Guard was awarded a total of \$150,334 to replace the existing HVAC system in the Norway Armory assembly hall with a heat pump air handling unit with energy recovery ventilation. The Maine Department of Agriculture, Conservation and Forestry was awarded a \$70,930 incentive to install a multi-zone VRF heat pump system to offset the use of fuel oil and electric resistance heating at the Maine Forest Service’s southern region headquarters in Augusta.⁷⁰

With respect to TA incentives, the Trust awarded four agencies a total of \$69,800 to develop designs and bid solicitation documents for heat pump systems. Two of these TA studies led to project awards in FY2024. Though the Trust does not have sufficient budget to award Lead by Example Initiative funds to the other two projects, those facilities could potentially access standard project incentives through the C&I Custom Program or the C&I Prescriptive Initiatives if they choose to pursue the associated upgrades.

Also in FY2024, BGS identified on its own initiative several opportunities to “lead by example” in state properties for projects demonstrating new, clean energy technologies and building systems. One example is the addition of new public EV chargers on, or immediately adjacent to, the state capitol grounds. For this and a handful of other energy upgrades on state properties, the Trust determined that it would be most efficient for BGS and DAFS to take the lead in determining which projects should receive the funding. To that end, in the spring of FY2024 the Trust agreed to amend the project MOU so that a portion of the funds could go directly to DAFS to develop and fund clean energy projects.

Agricultural Fair Assistance Program

In 2019, the Legislature enacted LD 1186, An Act to Address Electricity Costs of Agricultural Fairs, requiring the Trust to administer a new program to help agricultural fairs reduce their electricity costs

⁶⁹ The Trust’s effort focusing on energy in state buildings is one element of a broader initiative, of the same name, overseen by GOPIF and working to reduce carbon emissions across a wide range of activities in state government. See [Organizational Initiatives and Collaborations – Lead by Example](#) for more information.

⁷⁰ The FY2024 Lead by Example expenditures reported elsewhere in this report reflect amounts paid out during FY2024. They do not reflect amounts that were awarded in FY2024 but will not be paid out until the next fiscal year.

through the most cost-effective opportunities available, including opportunities to reduce peak electricity demand. The legislation also established the Agricultural Fair Assistance Program Fund to support this program.

In collaboration with the Maine Association of Agricultural Fairs (MAAF), the Trust launched a Funding Opportunity Notice (FON) for agricultural fairs in early FY2023. This FON offered elevated incentives for the measures found to offer the greatest opportunity for efficiency upgrades on the fairgrounds: interior and exterior LED lighting and high-performance heat pumps for heating and air conditioning. With the help of MAAF, the program directed marketing and outreach about the FON directly to the fairs and the electrical contractor community. In FY2024, the Trust and MAAF reviewed the submitted applications and determined the financial awards for 14 eligible fairs. Each fair worked with their equipment suppliers and installation contractors to complete the approved scope of work prior to their 2023 opening day.

The Trust submitted a final report on the initiative to the Energy, Utilities and Technology Committee in January 2024.⁷¹ The report concluded that, though the Agricultural Fair Assistance Program succeeded in helping agricultural fairs make modest reductions to their electricity costs, it was an experiment that the Trust recommends not extending or repeating. First, there were no economic opportunities to meaningfully reduce demand at the fairs. Second, the projects to reduce the volume of electricity consumption were not cost-effective. While the equipment installed through this initiative is significantly more efficient than the equipment it replaced, it generally runs for only a small fraction of the year. The extremely limited operating hours of agricultural fairs prevents the efficient equipment from running long enough to save much energy. Absent significant energy savings, the benefit-to-cost ratio falls well below 1.0 and does not meet the traditional cost-effectiveness standard required for all Efficiency Maine programs that use ratepayer funds.

Thermal Energy Investment Program

In 2021, the Legislature enacted LD 597, An Act to Establish the Thermal Energy Investment Program, requiring the Trust to establish a new program to provide incentives and loans to businesses, municipalities, educational institutions, and non-profit entities for the installation of new thermal energy-derived projects.⁷² The goal of the legislation is to strengthen the state's forest products industry and lower energy costs by increasing the efficient use of thermal energy production. Thermal energy-derived projects are defined in the statute as projects that produce thermal energy and thermal renewable energy credits (TRECs) under Maine's renewable portfolio standard, such as wood-fueled combined heat and power or the conversion of fossil fuel-fired boilers to wood-fueled boilers or boilers using biofuels derived from wood. The statute does not stipulate any cost-effectiveness requirements

⁷¹ Efficiency Maine Trust, [Agricultural Fair Assistance Program: Final Staff Report of the Efficiency Maine Trust](#), January 14, 2024.

⁷² 35-A MRS §10128.

for these projects. The new law provides that the Thermal Energy Investment Fund will be funded through ACPs from electricity suppliers that fail to secure their required quota of TRECs.⁷³

The Trust launched the Thermal Energy Investment Program in December of FY2023. The program provides an incentive of 35% of project costs, with an additional 10% incentive for projects that include the installation of advanced emission controls or energy meters. The program did not receive incentive claims for any projects completed in FY2024; one new application was submitted for program review and pre-approval.

High-Performance Affordable Housing Pilot

In FY2022, the Trust launched a pilot to incentivize developers of new construction affordable housing to modify their baseline and build to Passive House standards.⁷⁴ In FY2024, the pilot's two projects were completed: (1) a 60-unit building developed by Avesta on Valley Street in Portland ("Porter Station"), and (2) a 60-unit building developed by South Portland Housing Development Corporation in Scarborough ("Oak Hill Senior Housing"). The Trust benefited from gaining more detailed information about the differences between the previous baseline and the Passive House standards, as well as some insights into best practices in approaching high-performance new construction generally. Notably, the Legislature enacted LD 1656, An Act to Promote Energy-Efficient Affordable Housing, in May 2022, requiring that all future new construction projects funded by MaineHousing meet efficiency qualifications based on industry-recognized certification programs such as Passive House.⁷⁵

School Decarbonization Program

Prior to 2021, the statute required the Trust to administer the School Energy Savings Program, providing incentives and technical support for energy audits, as well as incentives for energy-saving measures at PreK-12 schools in Maine. In 2021, the Legislature enacted LD 815, An Act to Support School Decarbonization, expanding the scope of this program to provide a more comprehensive technical and financial support to help K-12 schools become carbon neutral.⁷⁶ The bill renamed the initiative the School Decarbonization Program and allowed the Trust to facilitate access to, and cost-share, a variety of "professional services" beyond energy audits, including technical support, financing, and legal services. Late in FY2022, the Trust launched a School Decarbonization Technical Assistance Program that provides a cost share for engineering studies and professional services to negotiate power purchase agreements on projects to electrify a school's heating system. The Trust also assigned a staff member to serve as the primary point of contact for schools; this person assesses each school's inquiry on a case-

⁷³ 35-A MRS §3210(9)(C).

⁷⁴ More information about Passive House standards may be found on the Passive House Institute U.S. website at <https://www.phius.org/>.

⁷⁵ Public Law, Chapter 718, 130th Maine State Legislature, Second Regular Session, LD 1656, An Act to Promote Energy-Efficient Affordable Housing.

⁷⁶ Public Law, Chapter 152, 130th Maine State Legislature, First Special Session, LD 815, An Act To Support School Decarbonization.

by-case basis, directing them to the Trust’s existing program offerings where appropriate and facilitating access to professional services as requested. In FY2024, the point of contact connected a number of school representatives with the targeted opportunity for PreK-12 schools offered under the C&I Prescriptive Initiatives. The Trust also received one request for funding under the School Decarbonization Technical Assistance Program to support the development of a solar power purchase agreement.

DRAFT

Strategic Initiatives

Evaluation, Measurement, and Verification

The Trust's evaluation, measurement, and verification (EM&V) activities provide research and data-driven analysis to inform program design and delivery strategies, verify program results, and facilitate continuous program and organizational improvement. The Trust carries out these activities using a combination of in-house initiatives and subcontracted, independent third-party reviews performed by firms that specialize in the evaluation of energy efficiency programs.

FY2024 Activities

Following are some activity highlights for FY2024:

- *Triennial Plan Studies*: The Trust completed the following studies to better understand the potential for cost-effective energy savings and the market channels for energy efficiency measures under the next triennial plan:
 - Comprehensive Assessment of Potential New Measures
 - Residential Baseline Assessment
 - Electric Vehicle Market Assessment
 - Load Impacts from Electric Vehicles in Maine
 - Statewide Avoided T&D Valuation Review
- *Triennial Plan Proceedings*: Staff prepared materials for the Trust's filings at the PUC related to the current Triennial Plan, including the FY2024 Annual Update.
- *Technical Reference Manual (TRM) Updates*: The Trust's TRMs memorialize the methods and assumptions used to calculate energy and demand savings. The Trust made updates to the TRM assumptions as new information became available in order to improve the accuracy of claimed savings.
- *Forward Capacity Market Measurement and Verification (M&V) Compliance Review*: The Trust completed its annual FCM M&V Compliance Review. The review found that the Trust's methods and assumptions for calculating peak summer demand savings at the portfolio level were estimated at $\pm 5.19\%$ relative precision with 80% confidence, exceeding the requirement of the ISO-NE. Winter demand savings were calculated at $\pm 9.58\%$ relative precision. The ISO-NE standard is that the relative precision of the portfolio not exceed $\pm 10\%$ with 80% confidence. The review team also found that the metering equipment used by the Trust to measure distributed generation assets was FCM compliant.
- *Customer Surveys*: The Trust conducted an online demographic survey of low-and moderate-income customers who received weatherization rebates to inform federal funds reporting.
- *Program Evaluations*:
 - The Trust finalized the Residential Heat Pump Impact Evaluation. The study found that the Trust's initial assumptions about the type and distribution of decision type ("retrofit" vs. "lost opportunity") were inaccurate. In one regard, the Trust's initial energy savings projections were overly conservative. It had assumed that 100% of the purchasing decisions for any-income customers were "lost opportunity," in which the

Trust would only count electric savings (i.e., it initially assumed that the customer had already decided to install a heat pump, and the impact of the program was to encourage the consumer to purchase a more efficient model than they otherwise would have). Evaluators ultimately found that 79% of installations were “retrofits.” In another regard, however, evaluators found that the heat pumps are not being used as much as the Trust had initially assumed. Taken together, the net result showed slightly higher energy savings than the Trust had originally estimated. Also notable is the fact that multi-zone heat pump systems were deemed not cost-effective. In addition to slightly higher equipment costs in a multi-zone setup, possible drivers to be “short cycling” and system imbalances resulting in lower efficiency. This finding is reflected in the exclusion of multi-zone heat pumps from the whole-home heat pump rebate offering announced in FY2024.

- Launched the C&I Custom Program Evaluation.
- Issued an RFP for the Impact Evaluation of Heat Pump Water Heater and Electronically Commutated Motor Measures
- *effRT 2.0*: The Trust continued to invest in improvements to *effRT 2.0*, the multiprogram database that supports the Trust’s reporting and project activity tracking, to improve data accuracy and application processing.

FY2025 Plans

Following are some EM&V activities planned by the Trust for FY2025:

- Conclude and publish the report for the C&I Custom Program Evaluation.
- Launch the Impact Evaluation of Heat Pump Water Heater and Electronically Commutated Motor Measures.
- Launch the Evaluation of the Electric Vehicle Initiatives with particular focus on hourly charging profiles.
- Publish periodic updates to the TRMs as new information becomes available.
- Roll out real-time, ongoing customer surveys on other programs.
- Seek opportunities to expand the use of utility interval data and modern analytics in the performance of the Trust’s EM&V activities.

Innovation

The Trust's Innovation Program provides funding to conduct pilot projects that demonstrate new types of energy efficiency, demand management, or alternative energy measures, and new strategies for promoting such measures. The program focuses on measures that show significant potential to be cost-effective and to provide energy savings or greenhouse gas savings but are not yet well understood or established in the Maine marketplace. The measures piloted may or may not prove to be cost-effective or popular. One purpose of the Innovation Program is to use smaller projects to generate findings about cost-effectiveness and market demand before making larger commitments of resources that a full-scale program entails.

FY2024 Activities

Following are some Innovation Program activity highlights for FY2024:

- Expanded the Whole-Home Heat Pump Solutions Pilot to more fully develop elements of sustainable, broader application of this measure; added installations in double-wide (vs. single-wide) manufactured homes, in manufactured homes located farther north than previously tested, and using an alternative heat pump configuration for manufactured homes.
- Transitioned previous learnings to a broader program offering under Low-Income Initiatives for single-wide homes in and south of Bangor using the pilot's original ducted heat pump furnace replacement model.
- Added two new test sites for the Hydronic Heat Pump with Thermal Storage Pilot, monitoring a total of three test sites over the course of the year.
- Monitored the ongoing Maine Transactive Energy Pilot.
- Monitored the ongoing Commercial Split-System Heat Pump Water Heater Demonstration Pilot.
- Per legislative mandate, conducted a feasibility assessment for a Vehicle-to-Grid (V2G) pilot and made recommendations to the Legislature.⁷⁷
- Sunsetting the Energy Storage System Program pilot and incorporated large battery storage as a cost-effective electrical measure under the Demand Management Program.⁷⁸

FY2024 Results

In 2023, the Legislature passed LD 519, *Resolve: to Evaluate a Vehicle-to-grid Pilot Project Using Electric School Buses*, directing the Trust to assess the feasibility of implementing a V2G pilot project, located at the Wells-Ogunquit Community School District, in which the batteries in electric school buses are charged at times when demands on the electric grid are low, and electricity stored in those batteries is discharged to the electric grid when demands on the grid are high.⁷⁹ The resolve also directed the Trust to work with interested parties and stakeholders to complete the assessment of the pilot project

⁷⁷ Public Law, Chapter 32, 131st Maine State Legislature, LD 519, Resolve, to Evaluate a Vehicle-to-grid Pilot Project Using Electric School Buses.

⁷⁸ For more information, see the [Demand Management Program](#) section.

⁷⁹ Public Law, Chapter 32, 131st Maine State Legislature, LD 519, Resolve, to Evaluate a Vehicle-to-grid Pilot Project Using Electric School Buses.

considering (1) the likelihood of an electric school bus V2G pilot project becoming cost-effective in the future; (2) options that will minimize the costs and maximize ratepayer benefits; (3) forecasted costs inclusive of grid interconnection; and (4) whether a pilot project could be implemented within the available budget in the Trust's Innovation Program. The resolve also required that the Trust submit a report to the Legislature's Energy, Utilities and Technology Committee by January 15, 2024, detailing the assessment of the pilot project and including a recommendation regarding its feasibility.⁸⁰

The Trust worked with two primary stakeholders in formulating an assessment of a potential V2G pilot project in Wells-Ogunquit school district: (1) Ledgemere Transportation, the local branch of the national organization Student Transportation of America, which manages the electric school buses for the Wells-Ogunquit school district; and (2) CMP, the electric utility serving the school district. As a first step, the Trust conducted a literature review of completed and ongoing V2G pilots from around the country. It then completed a benefit-cost analysis incorporating known benefits and costs. The Trust encountered a number of unknown costs that could not be quantified until CMP can complete the Chapter 324 Interconnection process. The existence and magnitude of unknown potential costs made it challenging to conduct a comprehensive and accurate assessment. The Trust concluded that Maine's current grid interconnection rules create barriers to battery installations in general, but specifically disadvantage battery installations that export their capacity to the grid. The Trust will continue to work with relevant stakeholders to improve this process for batteries while recognizing the need to maintain safety and reliability. The Trust also noted that it appears that the Wells-Ogunquit school district and its vendor will not proceed further in the process, and as a result, will not pursue V2G in the immediate future.

FY2024 Analysis

The Trust continued the Whole-Home Heat Pump Solutions Pilot in FY2024. This pilot aims to identify and test whole-home heat pump solutions that can directly replace an existing home heating system. As the pilot moved into FY2024, it had installed whole-home heat pump systems and was monitoring their performance in more than 30 manufactured homes and 10 stick-built homes. The Trust saw heat pumps in ducted manufactured home installations work at all temperatures observed, including temperatures lower than -15°F. The Trust therefore transitioned the initiative from a pilot to become a broader program offering under Low-Income Initiatives in FY2024. The program (the Manufactured [Mobile] Home Initiative) limited eligibility to single-wide manufactured homes in Maine's three warmer climate zones where the pilot proved successful. The Trust also expanded the Innovation pilot in FY2024, installing systems at additional sites with more challenging conditions, such as in double-wide manufactured homes and manufactured homes located in the colder climate zone north of Bangor. It also expanded the pilot to test an alternative configuration of heat pumps that requires an outdoor heat pump unit but utilizes the blower of the existing furnace. The team anticipates completing a total of 20 installations before winter 2024-2025, during which it will begin reviewing performance of these systems and conducting a metering analysis.

⁸⁰ The final report is available at https://www.energymaine.com/docs/EMT_School-bus-V2G-report-1.15.24-FINAL.pdf.

Also in FY2024, the Trust continued the Hydronic Heat Pump with Thermal Storage Pilot to identify and test retrofitting one or more types of hydronic heat pumps with thermal storage to fully heat homes that use existing hydronic distribution systems. The heat pump systems must supply 100% of the heat load of an existing structure currently heated by a boiler combusting a delivered fuel, such as heating oil, and distributing the heat through the existing hydronic system. The heating systems deployed through the pilot include an air-to-water heat pump, multiple thermal storage tanks, and an electric boost element. The components are connected to a supervisory control and data acquisition (SCADA) system that maintains resident comfort and would be capable of responding to a variety of hypothetical grid conditions. The pilot enrolled one test home in FY2023 and added two test homes in FY2024—all average-size homes around Millinocket. This focus will allow for proof of concept in a geographic area where significant amounts of wind power are driving negative electricity prices in the winter months.

In FY2023, the Trust partnered with the Post Road Foundation as part of its U.S. Department of Energy-sponsored project—Evaluating Transactive Energy for Rural America (known as the “Maine Transactive Energy Pilot”). The goal of the pilot is to create an enhanced “prices-from-devices” transactive energy software platform for two “Connected Communities” in Maine, called the Transactive Energy Service System (TESS). The software platform will coordinate the operation of DERs among the buildings in each community. The project will then assess TESS’s ability to achieve load flexibility and occupant comfort in a cost-effective manner. TESS will be deployed in each community, and performance will be observed over multiple years and seasons. Special-purpose experiments will be undertaken to simulate operational conditions that may not frequently arise (e.g., wholesale power price peaks, system load peaks, and uncommon market conditions).

These observations and experiments will measure performance metrics by comparing each community’s performance with TESS operational and with TESS disabled. Although “prices-from-devices” transactive energy has been tried before with either a single type of DER or a small number of homes, this will be the first effort to test transactive energy at the hundred-building scale with a mixed set of DERs and in a rural context. In Maine, each community will have about 100 pre-existing structures. Each building will host at least one type of DER that is currently incentivized through Efficiency Maine programs, such as an emergency power backup battery for a home or a smart EV charger. In FY2023, the Trust and other pilot collaborators selected Brunswick and Mount Desert Island as the two Connected Communities for the pilot. In FY2024, the Trust and the Post Road Foundation began to develop customer-facing tools and equipment integrations, and initiated community engagement that will enable the successful deployment of the pilot.

The Trust also continued to monitor progress in its Commercial Split-System Heat Pump Water Heater Demonstration Pilot in FY2024. To explore which kinds of buildings or applications might benefit most from split-system heat pump water heaters that use waste heat recovery, the pilot has recruited participants to represent four different building types—a brewery, a data center, a food processing facility, and a college dormitory. In FY2023, the equipment and metering were installed and commissioned at all four sites, and the test period began. Each participating pilot installation required a significant amount of site-specific engineering to fully capitalize on waste heat recovery, suggesting that these systems are unlikely to be suitable for prescriptive measures but might be appropriately

incorporated into the Trust's programs as custom measures. The Trust anticipates concluding the pilot and generating a final analysis in FY2025.

FY2025 Plans

- Continue to expand the Whole-Home Heat Pump Solutions Pilot, completing additional installations in double-wide manufactured homes and manufactured homes located farther north, and testing an alternative configuration of heat pumps that requires an outdoor heat pump unit but utilizes the blower of the existing furnace. Analyze and report on results across all phases of the pilot.
- Expand the Hydronic Heat Pump with Thermal Storage Pilot by enrolling four additional test sites. Monitor six total homes over the winter.
- Continue the Maine Transactive Energy Pilot, initiating device integration with TESS and sending preliminary control signals.
- Analyze and report on the results of the Commercial Split-System Heat Pump Water Heater Demonstration Pilot.
- Identify ideas for new innovation pilots and issue solicitations, as appropriate.

Public Information and Outreach

The Trust engages in a range of marketing and outreach activities across all its programs to reach a wide variety of customers across the State of Maine. Through efforts such as the Trust's website, media relations, social media, events, targeted mailings, and more, the Trust provides Maine residents and businesses with information about its rebates and programs, as well as general energy information and education. These marketing efforts help to increase awareness among Maine residents and businesses of the benefits of cost-effective efficient technologies, energy resources, and operating practices. The Trust provides guidance on how to access its rebates and programs, as well as promotes workforce development and professional training relevant to energy efficiency. Additionally, as Maine's energy efficiency program administrator, the Trust is frequently called upon to participate in energy-related events and to provide input on energy policy discussions.

FY2024 Activities

Following are some program activity highlights for FY2024, in addition to those described earlier within the individual program sections:

- *Events:*
 - Presented at more than 125 events, including events for Maine businesses and residents, such as energy industry forums, and state, regional, and national conferences on heat pumps, electric vehicles, and beneficial electrification.
 - Hosted Efficiency Maine's Annual Event celebrating the Trust's trade allies and hosting more than 160 electricians, plumbers, heating system installers, insulation technicians, distributors, manufacturers, business owners, electric vehicle dealers, and other stakeholders.
- *Web Resources:* Enhanced informational web resources (available on the Efficiency Maine website—[efficiencymaine.com](https://www.efficiencymaine.com)) about demand management; financing; EVs; and residential, commercial, and industrial solutions. The website also features helpful online energy calculator tools for heating, water heating, and electricity rates. Over the course of FY2024, the website averaged 67,000 visits per month.
- *Trainings:* Expanded and continued to offer educational and training resources online and in person by:
 - Continuing to offer online training for Residential Registered Vendors and Qualified Partners;
 - Continuing to offer training for participating EV Initiatives dealerships;
 - Continuing to offer trainings for Maine Realtors; and
 - Regularly supporting heat pump installer courses at Maine community colleges, distributors, and professional associations.

- *Media Outreach and Advertising:*
 - Participated in media interviews on energy efficiency issues and Efficiency Maine programs, including TV and radio news segments, and articles in more than 200 state and national media outlets, including a feature article in *The New York Times*.
 - Enhanced media outreach, social media activity, and media events to publicize the benefits of existing programs and to amplify positive media coverage.
 - Leveraged digital advertising and social media platforms to advertise rebates, drive potential participants to the website, answer customer questions, and promote word-of-mouth information exchange among program participants and vendors.
- *Call Center:*
 - Answered customer inquiries related to the Trust's programs through the Trust's call center staffed by customer service agents. In FY2024, the call center averaged more than 3,000 calls per month and answered 95% of them within 20 seconds. The call center also received an average of 671 letters per month.
 - Scheduled quality assurance inspections, conducted website testing, fulfilled requests for print materials, enrolled participants in the low-income free water heater program, and entered loan application information for customers who are uncomfortable using the internet.
- *Heat Pump Kits:* Shared heat pump tips and informational kits with heat pump rebate recipients. Over the course of FY2024, more than 11,000 kits were shipped to residential and commercial rebate recipients. The Trust also mailed and emailed seasonal heat pump tips to all heat pump rebate recipients.
- *Home Energy Score:* Per a legislative mandate,⁸¹ the Trust selected a home energy score provider through a competitive procurement and launched a web resource for Mainers interested in home energy scores.

FY2024 Plans

- Support beneficial electrification as an ongoing priority through outreach, press, and events on the benefits and applications of heat pumps, heat pump water heaters, EVs, ventilation units, and variable refrigerant flow systems.
- Support the communications and information needs of the Trust's newer initiatives, including EV Initiatives, the Efficiency Maine Green Bank, and Demand Management.
- Support the communications needs of the Trust's federally funded initiatives.
- Develop and provide educational resources on key solutions and technologies. This will include sending heat pump kits to heat pump rebate recipients and enhancing educational resources for heat pump installers, commercial HVAC contractors, design engineers, and participating EV dealers.

⁸¹ Public Law, Chapter 259, 131st Maine State Legislature, LD 1101, An Act to Support Lower Home Energy Costs by Establishing a Home Energy Scoring System.

- Continue to support media inquiries from news outlets interested in learning more about Efficiency Maine’s programs or seeking commentary on energy topics.
- Participate in symposiums, conferences, and industry forums to share program information and Efficiency Maine’s data analysis with efficiency professionals, government officials, and potential customers.

DRAFT

Finance and Administration

Funding Sources

The Trust received and expended funds in FY2024 from a variety of sources. Below are brief descriptions of the Trust's funding sources and how they are invested through Efficiency Maine's major programs and other initiatives.

Electric Efficiency Procurement

Electric Efficiency Procurement funds come from payments that electric utilities make directly to the Trust for the procurement of cost-effective electrical energy efficiency. The amount of funding the Trust receives is determined by the budget needed to capture the maximum achievable cost-effective (MACE) energy efficiency potential approved by the Maine PUC. Where available and appropriate, the Trust allocates a portion of other funding sources to offset some of the utility procurement necessary to capture MACE potential.

Maine's electricity customers who take service at the transmission and sub-transmission (T&ST) level do not contribute to and are ineligible for funding from the Electric Efficiency Procurement, but are generally eligible for other funds.

Natural Gas Efficiency Procurement

Natural Gas Efficiency Procurement funds come from natural gas distribution utilities. Similar to the standard used to establish the appropriate level of funding for electric efficiency, the amount of the procurement set for natural gas efficiency programs is based on the amount needed to capture the MACE natural gas savings through energy efficiency and conservation.

Maine's very large manufacturers and very large agricultural and aquaculture businesses, whose usage exceeds 1 million centum cubic feet (CCF) of natural gas annually, are limited to paying the assessment for the Natural Gas Efficiency Procurement on their first 1 million CCF of usage. This limitation does not impact their eligibility for the Trust's natural gas efficiency programs.

Regional Greenhouse Gas Initiative

RGGI is a multistate initiative to limit carbon emissions from electricity generators. Maine joined RGGI in 2009 when it was established. Under RGGI, large generators are required to purchase "carbon allowances" in an amount equal to their annual carbon emissions. Allowances are sold at quarterly auctions for this purpose.

Maine law requires that 100% of the annual emissions allowances for carbon dioxide be allocated for public benefit to produce funds for carbon reduction and energy conservation, and that the revenue resulting from the sale of allowances must be deposited in the Regional Greenhouse Gas Initiative Trust Fund managed by the Trust.⁸²

⁸² 38 MRS §580-B(7).

The Trust must use RGGI funds for measures, investments, loans, technical assistance, and arrangements that reduce electricity consumption, increase energy efficiency or reduce greenhouse gas emissions, and lower energy costs at commercial or industrial facilities, and for investment in measures that lower residential heating energy demand and reduce greenhouse gas emissions.

Forward Capacity Market

FCM funds are proceeds from the Trust's capacity resources, which are bid into the ISO-NE markets. The compensation that the Trust receives from the FCM is for the reduction of demand delivered through qualifying efficiency projects that are tracked and reported by the Trust.

In late FY2019, the Maine Legislature enacted a Governor's bill—LD 1766, An Act to Transform Maine's Heat Pump Market to Advance Economic Security and Climate Objectives—establishing a goal of installing 100,000 high-performance heat pumps in the state between 2019 and 2025. The new law directed the Trust to allocate five years of new FCM revenue to promoting high-efficiency heat pumps and required that these funds be used to “supplement but not supplant” the existing incentives funded by the Electric Efficiency Procurement. The new law also provided that the Trust's FCM revenues must be excluded from consideration when the PUC determines the amount of cost-effective electric energy efficiency resources to be procured to capture MACE potential. The new law went into effect in September 2019.⁸³

Federal Funds

The Trust received federal funds through the American Recovery and Reinvestment Act in 2009 and 2010. These funds were disbursed through grants and through a revolving loan fund. The Residential Revolving Loan Fund has been in operation since that time and continued to operate in FY2023.

In FY2022, the Trust was named a recipient of \$50 million of American Rescue Plan Act (ARPA) funds as part of the Maine Jobs and Recovery Plan (MJRP). The MJRP allocated the \$50 million to Efficiency Maine to accelerate weatherization upgrades for low- and moderate-income residents, and to expand energy efficiency investment among local governments, schools, community organizations, businesses, and manufacturers. The MJRP also allocated \$8 million to MaineDOT to expand state, municipal, and other publicly accessible EV charging stations and related infrastructure in partnership with Efficiency Maine. The Trust began to invest these funds in FY2023.⁸⁴

Also in FY2023, Maine received approximately \$19 million of National EV Infrastructure Program funds (enabled through the 2021 Infrastructure Investment and Jobs Act — also known as the Bipartisan Infrastructure Law). The Trust was contracted by MaineDOT and the Governor's Energy Office to administer the state's NEVI funds, providing grants for qualifying EV charging infrastructure projects.

⁸³ Public Law, Chapter 308, 129th Maine State Legislature, LD 1766, An Act To Transform Maine's Heat Pump Market To Advance Economic Security and Climate Objectives.

⁸⁴ For further detail on these initiatives, see [Appendix F: Maine Jobs and Recovery Plan Initiatives](#).

Maine Power Reliability Program Settlement Funds

The funds that the Trust received from the MPRP Settlement are governed by a May 7, 2010, stipulation approved by the PUC. The Trust received its final payment from the MPRP Settlement in FY2022; \$150,000 for the weatherization of low-income homes, \$250,000 for efficiency projects for T&ST customers, and another \$100,000 to be allocated for other programs at the Trust's discretion. Though it did not receive any new MPRP funds in FY2024, the Trust did spend some remaining carryforward.

New England Clean Energy Connect Settlement Funds

In 2019, the PUC approved Central Maine Power's request to build the NECEC—a 1,200 MW transmission line traversing Maine from the Quebec border to Lewiston.⁸⁵ As part of the settlement agreement approving the project, the project sponsors agreed to establish multiple funds to deliver benefits to Maine through programs administered by the Trust. The Trust has used NECEC funds to support EVs; EV chargers; variable refrigerant flow (VRF) systems for schools; and weatherization, heat pumps, and heat pump water heaters for low- and moderate-income households. From late 2021 to 2023, the NECEC project was on hold pending a referendum and judicial review, during which time the quarterly payments of settlement funds to the Trust were suspended. Settlement payments resumed during FY2024, and the Trust leveraged the funds to support the targeted heat pump water heater replacement initiative within Low-Income Initiatives.

Volkswagen Settlement Funds

In 2016 and 2017, VW agreed to settle allegations that it violated the federal Clean Air Act by installing “defeat devices” on certain diesel vehicles. Maine (through MaineDOT) received settlement funds from VW under consent decrees reflecting one settlement agreement. Through a Memorandum of Understanding, MaineDOT contracted with the Trust to administer approximately \$3.15 million of these funds to promote EV charging infrastructure with the goal of reducing greenhouse gas emissions and improving the energy efficiency of transportation in the state. Separately, VW settlement funds were also awarded to the Office of the Attorney General for the State of Maine. Of these funds, \$5.1 million were transferred to the Trust for running a program to reduce carbon and nitrogen oxides emissions through the promotion and increased use of EVs. Another approximately \$3.7 million in funds were transferred to the Trust to help state government facilities reduce their carbon footprint through energy efficiency improvements as part of the Governor's “Lead by Example” initiative.⁸⁶ In FY2024, the Trust expended the remaining allocation for EVs in FY2024 and continued to spend down the Lead by Example allocation.⁸⁷

Energy Efficiency and Renewable Resource Fund

EERRF is composed of voluntary contributions from ratepayers, as well as alternative compliance payments (ACPs) from entities that do not meet Maine's renewable portfolio standard requirement.

⁸⁵ Maine PUC, Orders Approving Transmission Line, Dkt. No. 2017-00232 as supplemented by Dkt. No. 2019-00179, May 3, 2019, and October 20, 2020, respectively.

⁸⁶ Maine Executive Order No. 13, FY 19/20, An Order for State Agencies to Lead by Example Through Energy Efficiency, Renewable Energy and Sustainability Measures, November 26, 2019.

⁸⁷ For more information, see [Other Initiatives – Lead by Example](#).

Maine law stipulates that 35% of these revenues be directed to the Maine Technology Institute (MTI) to help promote research on and development of renewables. The Trust may use the remainder of these revenues to fund demonstration projects or to provide rebates for customer-sited, commercialized renewable energy equipment, as funds allow.

In FY2023, the Legislature enacted LD 187, An Act to Eliminate the Energy Efficiency and Renewable Resource Fund and to Provide Needs-based Low-income Assistance.⁸⁸ The bill discontinued the EERRF, eliminated the voluntary ratepayer contributions, and redirected future ACP revenues to the T&D utilities to provide financial assistance to low-income households. With the passage of this bill, the Trust sought to invest the remaining EERRF fund balance for a constructive purpose consistent with the statutory provisions and the rules of the EERRF. To that end, the Trust decided to use EERRF funds to support the Innovation Program’s Hydronic Heat Pump with Thermal Storage Pilot in FY2023.⁸⁹

Agricultural Fair Assistance Program Fund

In late FY2019, the Maine Legislature enacted a bill, LD 1186, An Act to Address Electricity Costs of Agricultural Fairs, requiring the Trust to administer a new program to help agricultural fairs reduce their electricity demand charges.⁹⁰ The new law established the Agricultural Fair Assistance Program Fund to support this program.⁹¹ The PUC assessed each electric utility an amount necessary to collect the total value of demand charges paid by agricultural fairs in the state during the prior year. The Trust collected revenues for this fund in FY2021, FY2022, and FY2023. The Trust expended all remaining funds in FY2024.

Thermal Energy Investment Fund

In 2021, the Legislature enacted LD 597, An Act to Establish the Thermal Energy Investment Program, requiring the Trust to establish a new program to provide incentives and loans to businesses, municipalities, educational institutions, and non-profit entities for the installation of new thermal energy-derived projects.⁹² The new law established the Thermal Energy Investment Fund to support this program. The fund receives ACPs from electricity suppliers that fail to secure their required quota of thermal renewable energy credits (TREC)s.⁹³

State General Fund

In 2022, the Legislature enacted LD 1554, An Act to Provide Climate Change Transition Assistance for Maine’s Energy-intensive Businesses. This legislation required the Trust to establish an “Industrial Climate Transition Initiative” to develop and support climate change mitigation strategies designed to reduce greenhouse gas emissions at industrial facilities in the state. The bill appropriated one-time

⁸⁸ Public Law, Chapter 306, 131st Maine State Legislature, First Special Session, LD 187, An Act to Eliminate the Energy Efficiency and Renewable Resource Fund and to Provide Needs-based Low-income Assistance.

⁸⁹ For more information on this legislative change and the FY2023 investment, see [Other Initiatives – Renewables](#).

⁹⁰ Public Law, Chapter 169, 129th Maine State Legislature, First Regular Session, LD 1186, An Act to Address Electricity Costs of Agricultural Fairs.

⁹¹ 35-A MRS §10124.

⁹² Public Law, Chapter 199, 130th Maine State Legislature, First Special Session, LD 597, An Act to Establish the Thermal Energy Investment Program.

⁹³ 35-A MRS §3210(9)(C).

funding of \$500,000 from the State General Fund to support this initiative.^{94,95} The Trust allocated these funds to the C&I Custom Program to support cost-effective energy efficiency projects at industrial facilities.

Also in 2022, the Trust received \$3.5 million in one-time funding through the state's supplemental budget to support EV rebates.⁹⁶

Table 20 provides a summary of the Trust's revenues received during FY2024.

Table 20: FY2024 Revenues

Funding Source	Amount
Electric Efficiency Procurement	\$34,197,965
Natural Gas Efficiency Procurement	\$937,677
Regional Greenhouse Gas Initiative	\$41,061,318
Forward Capacity Market	\$4,796,510
Federal Funds	\$13,858,513
Energy Efficiency and Renewable Resource Fund	\$95,572
NECEC Settlement	\$3,500,000
Thermal Energy Investment Fund	\$1,343,350
Interest Income ⁹⁷	\$1,104,197
Total	\$100,895,102

Expenditures

The Trust invested more than \$101 million in FY2024 to fund the activities described throughout this Annual Report, including Major Programs, Other Initiatives, and Strategic Initiatives. Table 21 provides a summary of the Trust's expenditures during FY2024.

⁹⁴ Public Law, Chapter 716, 130th Maine State Legislature, LD 1554, An Act To Provide Climate Change Transition Assistance for Maine's Energy-intensive Businesses.

⁹⁵ Per the statute, the Industrial Climate Transition Initiative funds flow through the RGGI Fund.

⁹⁶ Public Law, Chapter 635, 130th Maine State Legislature, LD 1995, An Act To Make Supplemental Appropriations and Allocations for the Expenditures of State Government, General Fund and Other Funds and To Change Certain Provisions of the Law Necessary to the Proper Operations of State Government for the Fiscal Years Ending June 30, 2022 and June 30, 2023.

⁹⁷ Includes investment (bank) interest income and interest income from the Trust's revolving loan funds. The Trust uses bank interest income to offset administration expenses. Loan interest income gets recycled back into the revolving loan funds.

Table 21: FY2024 Expenditures⁹⁸

Use of Funds	Amount
Major Programs	
Commercial and Industrial Custom Program	\$4,904,029
Commercial and Industrial Prescriptive Initiatives	\$19,114,848
Distributor Initiatives	\$7,983,357
Retail Initiatives	\$7,778,697
Home Energy Savings Program	\$21,602,441
Low-Income Initiatives	\$25,663,796
Electric Vehicle Initiatives – EV Rebates	\$2,690,967
Demand Management Program	\$802,075
Other Initiatives⁹⁹	
Efficiency Maine Green Bank ¹⁰⁰	\$747,695
Lead by Example Initiative	\$305,998
Agricultural Fair Assistance Program	\$9,920
Thermal Energy Investment Program	\$6,591
High-Performance Affordable Housing Pilot	\$278,302
Electric Vehicle Initiatives – EV Supply Equipment ¹⁰¹	\$781,671
Strategic Initiatives and Administration	
Strategic Initiatives	\$1,999,294
Administration	\$4,557,196
Other Payments¹⁰²	\$1,913,440
Total Use of Funds	\$101,879,573

Statutory Budget Allocation Requirements

The Efficiency Maine Trust Act requires the Trust to allocate budgets and deploy strategies for the Electric Efficiency and Conservation Fund and the Natural Gas Conservation Fund in a manner that

⁹⁸ Reporting on metrics for Major Programs and Other Initiatives elsewhere in this Annual Report (Table 5 and Table 6, throughout the Major Program chapters, and in [Appendix B](#)) is based on project completion dates, while Table 21 reflects accrual-basis accounting. This results in some variance due to timing differences.

⁹⁹ This table only lists those Other Initiatives that expended funds in FY2024 (i.e., those with no expenditures are not listed.)

¹⁰⁰ Reflects loan servicing support expenditures only (i.e., not the loans themselves). For detail on FY2023 loan activity, see the [Other Initiatives – Efficiency Maine Green Bank](#) section.

¹⁰¹ As elsewhere in this report, the Trust includes EV Initiatives' EVSE expenditures with Other Initiatives and EV Initiatives' rebate metrics with Major Programs. The reason is that, while EV chargers are critical infrastructure for promoting the increased use of EVs, unlike all other Major Programs, chargers do not, by themselves, save any energy. Nevertheless, because EVSE is such an integral element of the Trust's EV Initiatives, descriptions of the associated FY2023 activity are included in the EV Initiatives chapter in the Major Programs section.

¹⁰² Includes payments to MTI for its share of the EERRF, payments to DEP for its RGGI-related administration costs, and payments for administration costs to RGGI Inc. (the non-profit entity that manages RGGI).

gives all customers a “reasonable opportunity to participate” in its programs.^{103,104} The statute expressly directs the programs paid for through these funds to satisfy specific budget allocations for two customer groups: *low-income residential customers* and *small business customers*. This section provides an overview of the statutory budget allocation requirements for these customer groups and how the Trust met these targets in FY2023.¹⁰⁵

For the Electric Efficiency and Conservation Fund, the statute states that the Trust must target at least 10% of funds or \$2.6 million, whichever is greater, to low-income residential consumers and small business consumers, respectively.¹⁰⁶

As described in Triennial Plan V,¹⁰⁷ the Electric Efficiency and Conservation Fund target for low-income customers is 10% of the Fund’s total program budget. The plan set out to achieve this target by combining funding from three programs, as follows: (1) 100% of the Electric Efficiency Procurement budget for Low-Income Initiatives; (2) the portion of program spending in Distributor Initiatives that is attributable to purchases by low-income customers; and (3) the portion of program spending in Retail Initiatives that is attributable to purchases by low-income customers. Table 22 shows the Trust’s expenditures in each of these categories in FY2024, for a total investment of \$3,012,110. This represents 8.5% of the Electric Efficiency and Conservation Fund’s total program budget, falling 1.5% (or \$537,072) short of the 10% target for this year.

The Trust attributes this shortfall primarily to two factors. First, there was a significant decrease in responses to the Low-Income Initiatives’ direct-mail activity. Second, the direct installation initiative to put new heat pump water heaters in low-income homes resulted in replacing a higher number of old tankless coil systems than had originally been forecasted, and a lower number of electric resistance systems than had originally been forecasted.¹⁰⁸ As a result, less of the initiative’s cost was billed to the Electric Efficiency and Conservation Fund than had originally been forecasted (as more of it was billed to the RGGI and NECEC funds that are used where the measure savings is primarily heating fuels). It is worth noting that low-income customers also benefited from the LEDs, clothes washers, and room air purifiers incentivized through Retail Initiatives, but because the precise proportion has not been quantified, the Trust did not attribute any portion of the budget for those measures to meet the low-income allocation.

¹⁰³ 35-A MRS §10110(2)(B) and 35-A MRS §10111(1)(B).

¹⁰⁴ The Electric Efficiency and Conservation Fund and the Natural Gas Conservation Fund are the fund names provided in statute (35-A MRS §10110 and §10111). The principal revenue sources for these funds are the Electric Efficiency Procurement and the Natural Gas Efficiency Procurement, respectively. The Trust therefore uses the latter terms elsewhere in the report when describing the relevant funding sources.

¹⁰⁵ Chapters 3 and 4 of the Trust’s rules provide additional detail on these requirements, as well as specific definitions of “low-income residential consumer” and “small business consumer.” See 95-648 CMR ch. 3-4.

¹⁰⁶ 35-A MRS §10110(2)(B).

¹⁰⁷ Efficiency Maine Trust, Appendix H: Statutory Budget Allocation Requirements, in *Triennial Plan for Fiscal Years 2023-2025*, 2022.

¹⁰⁸ For additional detail, see the Low-Income Initiatives section.

Table 22: FY2024 Low-Income Electric Expenditures

Program	Expenditures
Low-Income Initiatives	\$1,084,301
Portion of Distributor Initiatives	\$882,756
Portion of Retail Initiatives	\$1,045,053
Total	\$3,012,110
10% Target	\$3,549,182
Variance	\$(537,072)

As also described in Triennial Plan V, the Electric Efficiency and Conservation Fund target for small business customers is 10% of the Fund’s total program budget. The plan set out to achieve this target by combining funding from three programs, as follows: (1) 100% of electric spending in the Small Business Initiative (SBI is a discrete initiative within the Commercial and Industrial Prescriptive [CIP] Initiatives); (2) a portion of the spending from the Fund for all other initiatives in the CIP Initiatives attributable to projects completed at small businesses; and, (3) a portion of the spending from the Fund for Retail Initiatives attributable to projects completed at small businesses. Table 23 shows how the Trust exceeded the statutory allocation requirement through the activities of these three programs in FY2024.

Table 23: FY2024 Small Business Electric Expenditures

Program	Expenditures
CIP Initiatives	
Small Business Initiative	\$3,096,977
Portion of CIP Initiatives Other	\$3,499,823
Portion of Retail Initiatives	\$155,574
Total	\$6,752,375
10% Target	\$3,549,182
Variance	\$3,203,193

For the Natural Gas Conservation Fund, the statute states that Trust must apportion funds such that a “reasonable” percentage of the available funds is directed to programs for low-income residential consumers and small business consumers.¹⁰⁹

As described in Triennial Plan V, the Trust determined that low-income households represented significantly less than 1.0% of total natural gas load, and therefore applied 1.0% of the total program budget for the Natural Gas Conservation Fund to the Low-Income Initiatives (\$15,278 in FY2024). The Trust ended up suspending the use of Natural Gas Conservation Funds for natural gas measures (weatherization) in the Low-Income Initiatives in FY2024 upon determining that weatherization projects in natural gas homes were not cost-effective. Low-income natural gas customers were still able to participate in weatherization incentives funded with MJRP funds.¹¹⁰ So, while the Trust did not spend any Natural Gas Conservation Funds in this sector (and therefore did not meet its 1% target) it did invest

¹⁰⁹ 35-A MRS §10111(1)(B).

¹¹⁰ For the same reasons, the Trust leveraged RGGI funds for all-income weatherization incentives in natural gas homes in the Home Energy Savings Program.

a total of \$82,661 in MJRP funds in this same purpose. Generally, the relatively low budget amount and limited universe of cost-effective measures provides few opportunities to expend the available funds.

The Trust's natural gas programs define a small business consumer as a commercial customer of a gas distribution utility that has an annual usage of 40,000 centum cubic feet (CCF) or less. In a 2021 study, the Trust found that 28% of participants in the CIP program's natural gas offerings were small businesses, a significant fraction of participation and a reasonable share of the overall budget for natural gas programs. That study will periodically revisit and report on small business participation in the program. For FY2024, 28% of natural gas spending in CIP was just over \$41,000.

Though the Trust's statutory requirements for budget allocation are specific to procurement funds (i.e., the Electric Efficiency and Conservation Fund and the Natural Gas Conservation Fund), the Trust also allocated additional funding streams to programs to support low-income and small business customers in Triennial Plan V. The full suite of funds invested in low-income customers in FY2024 is summarized in Table 24. The approximately \$20.4 million invested represents more than 22% of the Trust's overall program spending.

Table 24: FY2024 Low-Income Expenditures (All Funding Streams)

Program	Expenditures
Portion of Low-Income Initiatives ¹¹¹	\$18,078,239
Portion of Distributor Initiatives	\$882,756
Portion of Retail Initiatives	\$1,045,053
Portion of EV Initiatives	\$406,500
High-Performance Affordable Housing Pilot	\$417,454
Innovation Manufactured Home Heat Pump Pilot	\$96,279
Total	\$20,926,281

¹¹¹ Excludes the portion of Low-Income Initiatives spending that was dedicated to moderate-income households and reflects spending on low-income households only.

Audit Results

The independent certified public accountant firm of Runyon, Kersteen, Ouellette, Inc., issued an audit report on the Trust's activities for the year ended June 30, 2024. The report covered the Trust's internal control over financial reporting and compliance with government accounting standards and financial statements. The report was unanimously accepted by the Board of Trustees on October 3, 2024.

The report of the audit of the Trust's financial statements delivered an "unmodified opinion" and found "no material weaknesses" related to the Trust's internal controls. The auditors wrote:

In our opinion, the financial statements ... present fairly, in all material respects, the respective financial position of the governmental activities and the major fund of the Efficiency Maine Trust, as of June 30, 2024, and the respective changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.¹¹²

The auditors did make a finding that the Trust's procurement policy has not adopted all aspects required by new regulations under the Uniform Guidance. They added "[h]owever, during our testing of procurement over federal expenditures, we did not notate any violations of the Uniform Guidance procurement standards."¹¹³

As reported in the audit, the Trust's FY2024 revenues and expenditures are \$101,895,012 and \$100,081,126, respectively, plus another \$1,913,440 sent to state agencies, and lease proceeds of \$114,993 resulting in a decrease to fund balance of \$984,471. The Trust's governmental fund balance as of June 30, 2024 is \$99,289,734 of which \$71,850,238 is restricted for operations and programs and \$27,439,497 is restricted for grant and revolving loan activity.

ISO-New England

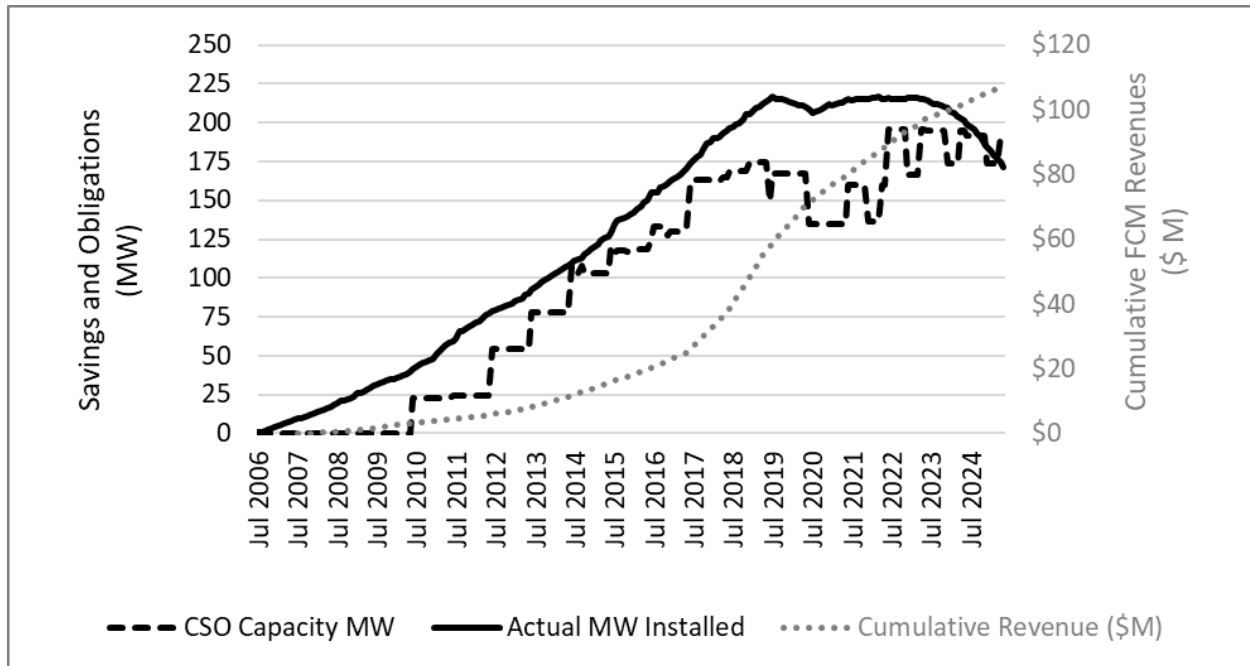
In FY2024, the Trust participated in the 18th Forward Capacity Auction (FCA). The Trust maintained its existing resources totaling 117 MW of summer peak demand savings, for which it will be paid a price of \$3.580 per kW per month. The Trust is also closely monitoring the wide-sweeping changes in design for the 19th FCA, which is currently planned to be held in February 2028 for delivery in June 2028. By the end of FY2024, the Trust's programs had delivered a total of 202 MW of summer peak demand savings. This represents a decline from past years due in large part to the fact that another 12 MW of measures

¹¹² Efficiency Maine Trust, "Annual Financial Report for the Year Ended June 30, 2024," prepared by Runyon, Kersteen, Ouellette, Inc., October 21, 2024, p.1.

¹¹³ Efficiency Maine Trust, "Reports Required by Government Auditing Standards and the Uniform Guidance for the Year Ended June 30, 2024," prepared by Runyon, Kersteen, Ouellette, Inc., October 21, 2024, p.10.

installed in prior years reached the end of their expected life and expired out. Figure 1 summarizes the Trust’s delivered savings and near-term future obligations.

Figure 1: Summary of the Trust’s FCA Actions



CSO = Capacity Supply Obligation.

Regional Greenhouse Gas Initiative

Each year, the Trust must report out on its RGGI expenditures and associated program results to both RGGI Inc. (the non-profit corporation created to support development and implementation of RGGI) and the Legislature.

The RGGI Annual Report to the Legislature covers all items related to the implementation of RGGI, and is collaboratively prepared by DEP, the PUC, and the Trust. The report is submitted to two legislative committees: the Joint Standing Committee on Environment and Natural Resources and the Joint Standing Committee on Energy, Utilities and Technology. In the most recent report, the Trust described how it invested over \$20.3 million of RGGI funds in FY2023. The RGGI funds expended in that year are projected to result in annual savings of approximately 1 million kilowatt-hours (kWh), 195,251 MMBtu, and 16,288 tons of carbon dioxide.

Administration

The Board of Trustees elected the following officers in FY2024:

- Glenn Poole, Chair
- Mark Isaacson, Vice-Chair
- Kenneth Colburn, Treasurer
- Joan Welsh, Secretary

The Board of Trustees approved one update to the Trust's administrative policies in FY2024: the Staff Salary Schedule. As the organization has grown in recent years, Staff observed that it would be helpful to introduce more low- to mid-career positions in the Staff Salary Schedule. The management team, with support from Board officers, also saw value in delegating some administrative and supervisory duties of the Executive Director and Deputy Director to additional new positions. In both cases, the solution has involved adding new positions. Additionally, Staff undertook research to evaluate position titles and salaries at peer organizations, providing useful comparisons for both new and existing positions. Although this research found that the Trust's current salary ranges are largely aligned with industry norms, some of the Trust's ranges were slightly lower than industry standards and, in those cases, were adjusted upward.

The Board of Trustees also adopted the Efficiency Maine Trust Board of Trustees Guide to Roles and Responsibilities in FY2024. The document was developed by the Board to help orient new Trustees, and to serve as a reference and reminder for veteran Trustees, to facilitate the efficient and effective operation of the organization. It provides an overview of responsibilities and expectations of individual trustees; responsibilities and expectations of the Board as a whole (including general matters, administrative matters, duties of the Board, liability and indemnity); and confidentiality and conflict of interest.

The Board of Trustees also approved amendments to one of the Trust's administrative rules in FY2024: Chapter 3 –Electric Efficiency and Conservation Programs. These amendments reflect updates to the Efficiency Maine Trust Act resulting from the enactment of Public Law 2023, Chapter 328, An Act to Enact the Beneficial Electrification Policy Act.¹¹⁴ These changes pertain to the Trust's activities to advance the policy of beneficial electrification and to the inclusion of certain cost-effective beneficial electrification measures in the determination of maximum achievable cost-effective (MACE) resources in the Trust's triennial plan. Adopted updates to the rule also reflect changes made by the Legislature in recent years to 35-A MRS §10104(4) and to 35-A MRS §10110(2), which describe goals that the Trust must advance in its triennial plans and criteria for conservation programs.

¹¹⁴ Public Law, Chapter 328, 131st Maine State Legislature, First Special Session, LD 1724, An Act to Enact the Beneficial Electrification Policy Act.

Legislative Recommendations

The Trust's authorizing statute provides that the Annual Report should include "[a]ny recommendations for changes to the laws relating to energy conservation."¹¹⁵ The Trust does not have any such recommendations at this time.

DRAFT

¹¹⁵ 35-A MRS §10104(4).

Organizational Initiatives and Collaborations

In FY2024, the Trust engaged in various state, regional, and national forums that advance its mission. Within Maine, the Trust monitors and participates in state initiatives and proceedings with an eye to supporting policies and programs that will promote cost-effective energy conservation or greenhouse gas reductions, consistent with the purposes given to the Trust in the Efficiency Maine Trust Act. Additionally, the Efficiency Maine Trust Act provides that: “The trust shall monitor conservation planning and program development activities in the region and around the country...” and also that “The trust may coordinate its efforts under this section with similar efforts in other states in the northeast region...” Accordingly, the Trust engages with a number of regional and national initiatives. A brief description of the relevant organizational initiatives and collaborations follows.

Legislature

In FY2024, the Trust participated in public hearings and work sessions of the Maine Legislature to fulfill its duty as “a champion for funding cost-effective energy and energy efficiency programs.”¹¹⁶ The Trust staff provided information, analysis, and testimony on matters directly relating to the Trust’s programs and issues of energy conservation, customer-sited alternative energy systems, or greenhouse gas emissions reductions. A sampling of the bills that the Trust monitored or participated in discussing includes:

- LD 122, An Act to Update the Electric Vehicle Rebate Program and to Establish a Pilot Program to Support the Uptake of Medium-duty and Heavy-duty Zero-emission Vehicles;
- LD 1606 – Resolve, to Study Opportunities and Provide Guidance for School Clean Energy and Energy Efficiency Programs;
- LD 2067, An Act to Continue the Arrearage Management Program;
- LD 2053, An Act to Exempt Buildings Used to Cultivate Crops from the Maine Uniform Building and Energy Code; and
- LD 589, An Act to Ensure that the Maine Electric Grid Provides Additional Benefits to Maine Ratepayers.

Public Utilities Commission

The Trust staff was active in proceedings at the PUC in FY2024. The Trust staff filed and presented necessary testimony, evidence, comments, briefs, and exceptions related to the development, review,

¹¹⁶ 35-A MRS §10104(2)(B).

and approval of the Trust's Significant Changes to the Fifth Triennial Plan, Annual Update to the Triennial Plan, and related dockets. A selection of the relevant dockets that were active in FY2024 included:

- Docket No. 2021-00380 – Request for Approval of Fifth Triennial Plan for Fiscal Years 2023-2025 Pertaining to Efficiency Maine Trust; and
- Docket No. 2022-00039 – Public Utilities Commission Procurement of Electric Resources and Assessment for Natural Gas Resources for Fifth Triennial Plan FY 2023-2025.

In addition to the Triennial Plan dockets, the Trust staff also engaged in other proceedings at the PUC that have a direct or indirect impact on the Trust's programs. Other cases that the Trust engaged with in FY2024 included:

- Docket No. 2021-00325 – Commission Initiated Investigation into Transmission and Distribution Utility Rate Design to Promote State Policies;
- Docket No. 2022-00152 – Request for Approval of a Rate Change Pertaining to Central Maine Power Company;
- Docket No. 2023-00103 – Commission Initiated Rulemaking for Small Generator Interconnection Rule Chapter 324;
- Docket No. 2023-00239 – Commission Initiated Inquiry Regarding Arrears Management Program;
- Docket No. 2023-00019 – Commission Initiated Inquiry Regarding Rate Structure for Standard Offer Service;
- Docket No. 2023-00302 – Commission Initiated Inquiry Regarding the Potential for the Effective Use of Renewably Sourced Gas, Public Law 2023, Chapter 222;
- Docket No. 2023-00316 – Commission Initiated Inquiry Regarding Utility Control or Ownership of Energy Storage;
- Docket No. 2023-00336 – Request for Approval of Distribution Rate Change Pursuant to 35-A MRS §307 (3/31/25) Pertaining to Versant Power;
- Docket No. 2024-00014 – Request for Approval of Annual Compliance Filing Pertaining to Central Maine Power Company;
- Docket No. 2024-00015 – Request for Approval of Rate Change Regarding Annual Reconciliation of Stranded Cost Revenue and Costs Pertaining to Central Maine Power Company;
- Docket No. 2024-00077 – Versant Power Request for Approval of Rate Change – Annual Revenue Decoupling Adjustment;
- Docket No. 2024-00078 – Request for Approval of a Rate Change – 307 (7/1/24) Pertaining to Versant Power; and
- Docket No. 2024-00149 – Maine Public Utilities Commission Investigation into Allocation of Benefits of Distributed Generation under Net Energy Billing.

For more on the dockets related to Non-Wires Alternatives, please see the [Non-Wires Alternatives](#) section.

Governor's Energy Office and Governor's Office of Policy Innovation and the Future

The Trust worked with GEO to report energy data and program results to the U.S. Department of Energy (DOE), Maine's federal delegation, the Independent System Operator for New England (ISO-NE), the American Council for an Energy-Efficient Economy, and other non-profit and academic initiatives seeking energy data from Maine. The Trust conferred with GEO on legislation pending at the Legislature and certain dockets pending at the Public Utilities Commission. It also participated in GEO's development of the Maine Energy Plan: Pathway to 2040, as well as in GEO's discussions around the launch of the feasibility study on the establishment of a "Distribution System Operator" in Maine. Finally, the Trust and GEO collaborated on various applications for federal grants, including the IRA Home Energy Rebates program and the Energy Efficiency Revolving Loan Fund.

The Trust also collaborated with both GEO and GOPIF on a variety of issues and initiatives, including conferring on the use of existing and potential future investments of federal funds, activities related to the Maine Climate Council, the Maine Climate Council's Industrial Innovation Task Force, Maine's Plan for EV Infrastructure Deployment, and the Lead by Example Initiative to spur energy upgrades at state properties. In some cases, these collaborations are described in the sections below in further detail.

MaineHousing

The Trust conferred with the Maine State Housing Authority (MaineHousing) on developing updates to MaineHousing's annual plan for the DOE Weatherization Assistance Program and the HEAP Weatherization and Central Heating Improvement Program initiatives. As it does every year, in FY2024 MaineHousing briefed the Trust's Board, at a public meeting, on the elements of the coming year's weatherization plans. This briefing gave the Trust the opportunity to ask questions and provide input regarding lessons learned, best practices, and ways to ensure that similar initiatives at the Trust are complementary and not duplicative.

The Trust also continued to coordinate with MaineHousing on heat pump programs in FY2024. In recent years, MaineHousing has allocated a portion of its federal HEAP funds for heat pump installations in support of the state's heat pump goals. It has also received other federal grant funds to pursue heat pump installations in low-income homes. MaineHousing bases the portions of its heat pump program design elements on the Trust's existing equipment criteria, installation requirements, and inspection training protocols. As with weatherization initiatives, the two organizations worked to develop programs that are complementary and not duplicative.

MaineHousing was also part of the planning group developing Maine's IRA Home Energy Rebates program in coordination with the Trust and GEO.

The Trust's authorizing statute requires that it include in the Annual Report:

Total funds received and expended by the State on energy efficiency and weatherization pursuant to the Weatherization Assistance for Low-income Persons Program of the United States Department of Energy and the Low-income Home Energy Assistance Program of the United States Department of Health and Human Services.¹¹⁷

The budgets and expenses of these and other energy-efficiency-related initiatives are summarized in Table 25, which was prepared by MaineHousing.

[Remainder of this page purposely left blank.]

DRAFT

¹¹⁷ 35-A MRS §10104(5)(B)(4).

Table 25: MaineHousing Energy Efficiency and Weatherization Initiatives



Weatherization Readiness - Funding provided by DOE Annual funds as well as State Housing Opportunities for Maine (HOME) funding through the Home Accessibility Repair Program. This program component was first offered in 2022, and households must meet eligibility criteria for weatherization.			
<u>Services include:</u> repair or replacement of items which would not allow a household to receive weatherization services. Weatherization services must be completed within 6 months.	Calendar Year	Households Assisted	Production Expense
	2024	10	\$ 72,964.00
	2023	44	\$ 385,152.00
	2022	2	\$ 15,920.00
Weatherization - Funding provided by DOE Annual, DOE Bipartisan Infrastructure Law (BIL) funds and HEAP grant. Eligible households must be at or below 200% of federal poverty or HEAP eligible and have an energy audit completed for assessment of services.			
<u>Services include:</u> air sealing, installation of insulation, health & safety measures as well as replacement of an appliance and water heater (upon available funding).	Calendar Year	Households Assisted	Production Expense
	2024	331	\$ 3,860,065.00
	2023	261	\$ 5,002,930.00
	2022	316	\$ 3,206,175.00
	2021	303	\$ 2,795,934.00
	2020	359	\$ 2,885,403.00
Central Heating Improvement - Funding provided by HEAP grant as well as State HOME funding. This program will provide services for centrally installed heating systems including oil tanks and chimney services. Eligible households must meet HEAP eligibility criteria.			
	Calendar Year	Households Assisted	Production Expense
Heating System Replacement	2024	246	\$ 1,804,584.00
Heating System Repair		420	\$ 251,635.00
Heating System Replacement	2023	491	\$ 2,353,486.00
Heating System Repair		841	\$ 319,645.00
Heating System Replacement	2022	960	\$ 4,624,718.71
Heating System Repair		1546	\$ 662,588.57
Heating System Replacement	2021	813	\$ 3,455,802.97
Heating System Repair		1300	\$ 268,020.64
Heating System Replacement	2020	811	\$ 3,307,952.32
Heating System Repair		1341	\$ 515,276.39
Heat Pump - Funding provided by HEAP grant as well as the Sustainable Energy for Residential Consumers (SERC) grant from DOE. Eligible households must be at or below 200% of federal poverty.			
<u>Services include:</u> installation of a heat pump in a household to reduce the overall energy burden as well as electrical panel upgrade if necessary.	Calendar Year	Households Assisted	Production Expense
	2024	647	\$ 2,725,566.00
	2023	687	\$ 2,793,445.00
	2022	1697	\$ 6,355,729.82
	2021	901	\$ 2,911,527.85
	2020	304	\$ 878,835.60

Prepared by MaineHousing 8.4.2024; 2024 data does not reflect the full calendar year.

Department of Environmental Protection

In FY2024, the Trust worked with DEP on multiple issues. DEP is Maine’s administrative liaison to RGGI Inc., the non-profit entity that manages RGGI. In FY2024, the Trust and DEP, together with the PUC, continued their practice of preparing an annual report for the Legislature on RGGI activities and results in Maine. The Trust’s executive director and the DEP commissioner also served as co-chairs of the Maine Climate Council’s Industrial Innovation Task Force. (See the [Maine Climate Council](#) section for more detail.) Additionally, the Trust began working with DEP to layer their oil tank removal incentives onto the Manufactured (Mobile) Home Initiative.

Department of Transportation

The Trust works closely with MaineDOT on a number of issues and initiatives related to EV charging infrastructure. In FY2024, the Trust administered MaineDOT’s \$8 million MJRP allocation to expand publicly accessible EV charging stations, conferring with the department on plans and strategies and providing regular updates on performance metrics required for federal reporting. The Trust also managed the state’s National EV Infrastructure Program funds, collaborating with MaineDOT to review bids and select grant awardees.

Department of Health and Human Services

DHHS provides health and social services to approximately a third of the state's population, including children; families; older Mainers; and individuals with disabilities, mental illness, and substance use disorders. It operates a number of state and federal programs for which low income and/or limited assets are criteria for eligibility (e.g., SNAP for food assistance, TANF for cash assistance, and MaineCare for medical insurance coverage). The Trust works closely with DHHS to verify which individuals are participating in these income-eligible programs, while maintaining confidentiality, in order to determine that these individuals are eligible for the Trust’s initiatives aimed at helping low-income Mainers.

Office of the Public Advocate

In its role representing the interests of Maine utility consumers, OPA provides valuable insight into the Trust’s programs. The Trust actively collaborates with OPA on the Arrearage Management Program and on the NWA assessment process. In FY2024, the NWA team worked jointly to implement and refine procedures to efficiently review the utilities’ investment plans for their T&D systems. For more detail, see the [Non-Wires Alternatives](#) section.

Maine Climate Council

In 2019, the Legislature passed a bill establishing the Maine Climate Council to develop a climate action plan every four years to put Maine on a trajectory to reduce emissions by 45% by 2030 and at least 80% by 2050.¹¹⁸ The Council and its six Working Groups are composed of scientists, business leaders, environmental advocates, local and state officials, and engaged citizens. The Trust was named as an ex-officio member of the Council and was asked to serve as co-chair for the Working Group on Buildings, Infrastructure, and Housing. The Trust was also an active member of the Energy Working Group and the Transportation Working Group. Each Working Group was charged with developing, analyzing, and recommending strategies to inform the Council's plan to mitigate emissions and support resilience in Maine's various sectors. The Council presented its first four-year climate action plan to the Governor and Legislature on December 1, 2020.

One strategy identified in the climate action plan was for Maine to create an Industrial Innovation Task Force through which industry and stakeholders could collaborate to study and pilot innovations and incentives to reduce carbon emissions from Maine's industrial processes. The Trust worked with GEO and DEP to launch the Industrial Innovation Task Force in FY2021 and has convened periodic meetings since that time. The Trust's executive director and DEP's commissioner serve as co-chairs of this group. In FY2024, members were asked to provide recommendations related to reducing industrial emissions for the forthcoming update to Maine's climate action plan. The group will continue meeting and discussing potential technology applications and grant opportunities in FY2025.

The Trust's executive director has continued to serve as co-chair of the Working Group on Buildings, Infrastructure, and Housing as the Maine Climate Council prepares to update the state's climate action plan by December 2024.

Lead by Example

The Governor's Executive Order 13, FY 19/20, An Order for State Agencies to Lead by Example through Energy Efficiency, Renewable Energy and Sustainability Measures, directs state agencies to meet or exceed the state's renewable energy and greenhouse gas reduction targets.¹¹⁹ The Order names the Trust as a member of the Sustainability Leadership Committee, working with sustainability coordinators from GEO, GOPIF, DEP, the Department of Administrative and Financial Services, and MaineDOT to lead development and implementation of plans, seek consistency and cost efficiencies where appropriate, and track progress.¹²⁰

¹¹⁸ Public Law, Chapter 476, LD 1679, 129th Maine State Legislature, An Act To Promote Clean Energy Jobs and To Establish the Maine Climate Council.

¹¹⁹ Maine Executive Order No. 13, FY 19/20, An Order for State Agencies to Lead by Example Through Energy Efficiency, Renewable Energy and Sustainability Measures, November 26, 2019.

¹²⁰ For more information on the Trust's programmatic LBE activities, see [Other Initiatives – Lead by Example Initiative](#).

Electric Ratepayer Advisory Council

In April 2022, the Legislature enacted LD 1913, An Act To Create the Electric Ratepayer Advisory Council.¹²¹ The stated goal of the council is to evaluate measures to make electricity more affordable in Maine and to advise the Public Advocate on these potential measures. The statute placed the Trust's executive director (or their designee) as one of five non-voting ex-officio members of the 18-member council. The council convened several meetings in FY2024 and generated a report to the Legislature.

Equity

The Trust's work, and Triennial Plan V (FY2023-2025), reflect the priority of enhancing fairness and promoting equity. Fairness in the Trust's programs is advanced in part by ensuring that statutory minimum funding levels are allocated to low-income customers and to small business customers.¹²² Equity and cost considerations factor into all of the Trust's budget allocations and program designs, but particularly those targeted at low- to moderate-income households and small businesses. For these customers, the barriers to accessing energy efficiency and clean energy upgrades tend to be greater, and they commonly need more support to participate in the Trust's programs.

In FY2024, the Trust increased investments in low- and moderate-income households through many of the initiatives and programs described above, including the Low-Income Initiatives' weatherization and heat pump programs, and the EV rebate program in particular. The Trust also maintains a strong focus on geographic equity in its programs. In FY2024, that geographic focus included a special effort to develop EV charging projects in small, rural, and/or disadvantaged communities.¹²³

The Trust also relies on its Low-Income Advisory Group, the EV Advisory Group, Recharge Maine, and others to help staff consider income-related equity issues in its program designs and implementation. Members of the Trust's internal equity working group supported programmatic equity goals as well as within internal operations. These staff members participated in a number of industry trainings around equity initiatives and concerns; they also learned about industry best practices. In FY2025, the Trust will continue to engage in meaningful equity initiatives, in particular those equity priorities as outlined in the Trust's federally funded initiatives.

Workforce Development

The Trust monitors workforce capacity and skillsets as part of its planning and implementation of efficiency programs. Where the Trust identifies educational topics related to designing, installing, and

¹²¹ Public Law, Chapter 623, LD 1913, 130th Maine State Legislature, An Act To Create the Electric Ratepayer Advisory Council.

¹²² For additional detail, see the [Finance and Administration – Statutory Budget Allocation Requirements](#) section.

¹²³ The priority communities targeted through the Trust's MJRP initiatives include economically disadvantaged communities; rural areas and small towns; and small businesses. For additional detail on these initiatives and their equity metrics, see [Appendix F: Maine Jobs and Recovery Plan Initiatives](#).

maintaining high-efficiency equipment, it may support targeted training and other means of promoting quality assurance. During FY2024, the Trust sponsored trainings for heat pump installers and provided scholarships for heat pump and Building Performance Institute training. It hosted webinars for contractors to learn about the latest program and technology developments. It also supported GOPIF in its work leading the Maine Clean Energy Partnership and its efforts to develop the clean energy workforce in Maine.

Codes and Standards

State and local building codes and equipment standards are occasionally the subject of policy change. When this happens, it can impact energy efficiency programs in various ways. For example, in 2019 the Maine Legislature reformed Maine's regulatory framework for building codes. The reforms included establishing a requirement that the Maine Uniform Building and Energy Code (MUBEC) be updated and made effective in every municipality across the state. The statute named the Trust's executive director as an ex-officio member of the MUBEC Technical Board and mandated that the Board establish a "stretch code" that municipalities may elect to adopt. With the arrival of these new codes in FY2021, the Trust offered seven free training workshops on code provisions and best practices for compliance. These workshops were facilitated by the Maine Indoor Air Quality Council. The workshop video recordings and presentations remained available on the Trust's website in FY2024. Also in FY2024, the MUBEC Board continued its efforts to finalize and adopt new rules to update the statewide building codes to the 2021 edition of the International Code Council set of codes.

Other Related Initiatives

The Trust typically engages in initiatives and forums to discuss policies or advance programs relevant to the Trust's purpose and activities. As described in the [Public Information and Outreach](#) section, the Trust was invited to present its work at several regional and national conferences and workshops.

Appendices

Appendix A: Energy Savings

Tables A-1, A-2, and A-3 illustrate the total energy savings and lifetime avoided energy supply costs associated with Major Programs and Other Initiatives that the Trust administered in FY2024. Positive savings represent a decrease in electricity or fuel use (MWh or MMBtu, respectively). Negative savings represent an increase in electricity or fuel use. Primary and secondary energy impacts (positive and negative) are reported for each program. For example, a project that installs an efficient clothes washer will report positive electricity savings from the more efficient installed equipment and will also report fuel savings due to lower hot water use to capture fuel savings from fuel-fired water heating equipment. In the case of fuel switching, positive savings occur for the replaced energy source, and negative savings (increased use) occur for the replacement energy source. As an example, a combined heat and power unit offsets electricity (resulting in savings) while consuming fuel. Another example of fuel switching is replacing an oil-fired water heater with a heat pump water heater that results in an increase in electricity and a decrease in oil use. The reported savings values are “adjusted gross savings” unless otherwise indicated. Adjusted gross savings reflect the change in energy consumption and demand that results directly from program-related actions taken by participants in an Efficiency Maine program, regardless of why they participated, adjusted by factors developed through program evaluations.¹²⁴

¹²⁴ Periodically, the Trust enlists independent third-party contractors to evaluate the savings impacts of major programs. The evaluations help the Trust develop factors to improve the accuracy of gross savings calculations based on installation rates and actual, site-verified savings rates. The evaluations are also used to analyze program attribution, including identifying program participants who would have installed the same or equivalent efficiency measures on their own even if the program had not been offered (“free ridership” [FR]) and the percentage of efficient equipment installed due to program influences even though no incentive or TA was received (“spillover” [SO]). Factoring in free ridership and spillover delivers “net savings,” which quantifies the savings directly (adjusted gross minus FR) and indirectly (SO) attributable to the program. The Trust publishes the FR and SO factors in the Technical Reference Manuals (TRMs).

Table A-1: FY2024 Energy Savings – Major Electric Programs

Program	Summer Peak Reduction (MW)	Annual Electric Savings (MWh)	Annual Non-Electric Savings (MMBtu)	Lifetime Electric Savings (MWh)	Lifetime Non-Electric Savings (MMBtu)	Annual GHG Savings (tons CO ₂ e)
Commercial and Industrial Custom Program – Electric	0.762	12,481	4,541	177,905	127,378	5,225
Commercial and Industrial Prescriptive Initiatives – Electric	4.552	28,676	1,118	416,891	120,458	11,246
Distributor Initiatives – Electric	0.366	4,857	27,679	73,660	359,833	4,146
Retail Initiatives – Electric	0.488	4,111	28,735	51,513	368,012	3,942
Home Energy Savings Program – Electric	0.727	-20,758	275,575	-373,638	4,960,349	14,392
Low-Income Initiatives – Electric	0.142	1,406	-7	15,643	-14	546
Demand Management Program	11.500	-	-	-	-	-
Total	18.539	30,773	337,642	361,974	5,936,015	39,497

Table A-2: FY2024 Energy Savings – Major Thermal Programs

Program	Summer Peak Reduction (MW)	Annual Electric Savings (MWh)	Annual Non-Electric Savings (MMBtu)	Lifetime Electric Savings (MWh)	Lifetime Non-Electric Savings (MMBtu)	Annual GHG Savings (tons CO ₂ e)
Commercial and Industrial Custom Program – Natural Gas	0.002	-161	6,477	-2,419	92,633	316
Commercial and Industrial Custom Program – Unregulated Fuels	-	-	533	0	6,231	43
Commercial and Industrial Prescriptive Initiatives – Natural Gas	0.005	-11	10,691	-163	224,780	621
Commercial and Industrial Prescriptive Initiatives – Unregulated Fuels	0.378	646	65,696	8,574	1,131,591	5,607
Home Energy Savings Program – Unregulated Fuels	0.100	1,766	28,586	36,419	616,697	3,017
Low-Income Initiatives – Unregulated Fuels	-0.004	-14,802	188,851	-263,419	3,417,913	9,638
Electric Vehicle Initiatives – EV Rebates ¹²⁵	-0.044	-3,609	63,686	-50,523	891,606	3,527
Total	0.437	-16,171	364,520	-271,531	6,381,452	22,770

Table A-3: FY2024 Energy Savings – Other Initiatives¹²⁶

Initiative	Summer Peak Reduction (MW)	Annual Electric Savings (MWh)	Annual Non-Electric Savings (MMBtu)	Lifetime Electric Savings (MWh)	Lifetime Non-Electric Savings (MMBtu)	Annual GHG Savings (tons CO ₂ e)
Lead By Example Initiative	0.000	-22	404	-446	8,080	24
Agricultural Fair Assistance Program	0.047	26	0	581	0	10
Total	0.047	4	404	135	8,080	34

Legend: GHG = Greenhouse Gas; CO₂e = Carbon Dioxide Equivalent.

¹²⁵ For the Electric Vehicles Initiatives – EV Rebates, lifetime energy savings reflect gasoline savings associated with rebated EVs, net of the increased electricity use associated with charging those EVs (converted to MMBtu). Monetized impacts of gasoline savings and estimated avoided maintenance costs for EV ownership are included in the benefits. Participant Costs reflect those associated with EV rebates; they reflect both the customers' share of the incremental costs to purchase the vehicle and new electricity costs associated with charging those EVs.

¹²⁶ This table only lists those Other Initiatives that generated energy savings in FY2024 (i.e., those with no energy savings are not listed.)

Appendix B: Benefit-to-Cost Ratios

Two different cost tests are used to assess a program's cost-effectiveness: the Primary Benefit-Cost test, from the perspective of all utility customers (participants and non-participants), and the Program Administrator Cost Test (PACT), from the perspective of the program administrator (utility, government agency, or third-party implementer). The criteria for the two cost tests are as follows:

Primary test: The Primary test compares combined program administrator and customer costs to utility resource savings. The Primary test measures the benefits of the energy efficiency program for the region. Costs included in the Primary test are those used to purchase and install energy efficiency measures, including the costs incurred by program participants, costs incurred due to increased energy use, and costs of running the energy efficiency program. The benefits included are the avoided energy supply cost, avoided cost of water, and when quantifiable, avoided operation and maintenance costs.

PACT: The PACT compares program administrator costs to supply-side resource savings. A positive PACT (>1) indicates that an energy efficiency program is a lower-cost approach to meeting load growth than a wholesale energy purchase and new generation resources (including delivery and system costs). The PACT includes only costs incurred by the program administrator and not customer contributions.

Table B-1: Benefit-to-Cost Ratios – Major Electric Programs

Program	Adjusted Gross Benefit-to-Cost Ratio		Last Evaluation	Net-to-Gross Ratio	Net Benefit-to-Cost Ratio	
	Primary	PACT			Primary	PACT
Custom Program Electric Measures	2.35	6.70	Note 2	93%	2.33	6.56
C&I Prescriptive Program Electric Measures	2.88	6.78	2023	68%	2.66	5.89
Distributor Initiatives Electric Measures	3.05	3.36	Note 4	77%	2.80	3.06
Retail Initiatives Electric Measures	2.61	3.08	Note 4	83%	2.36	2.74
Home Energy Savings Program Electric Measures	1.35	12.81	2024	72%	1.34	12.13
Low-Income Initiatives Electric Measures	2.62	2.62	2020, Note 3	100%	2.62	2.62
Demand Management Program Electric Measures	8.16	8.16	Note 1	75%	7.14	7.14

Table B-2: Benefit-to-Cost Ratios – Major Thermal Programs

Program	Adjusted Gross Benefit-to-Cost Ratio		Last Evaluation	Net-to-Gross Ratio	Net Benefit-to-Cost Ratio	
	Primary	PACT			Primary	PACT
Custom Program Natural Gas Measures	1.56	5.60	Note 2	92%	1.55	5.42
Custom Program Unregulated Fuels Measures	0.14	0.15	Note 2	93%	0.13	0.14
C&I Prescriptive Program Natural Gas Measures	9.89	19.11	Note 3	55%	9.00	18.05
C&I Prescriptive Program Unregulated Fuels Measures	2.07	6.55	2023	73%	1.96	5.93
Home Energy Savings Program – Unregulated Fuels	1.21	3.94	2019	72%	1.16	3.49
Low-Income Initiatives – Unregulated Fuels	1.26	4.74	2019	89%	1.26	4.46
Electric Vehicle Initiatives	1.83	12.05	Note 4	75%	1.82	11.59

Note 1 New program, not yet evaluated.

Note 2 Currently being evaluated.

Note 3 Evaluation not scheduled.

Note 4 Evaluation to begin in 2025.

Appendix C: Program Expenditures

Table C-1: Expenditures – Major Electric Programs

Program	Incentive	Delivery	Total
Commercial and Industrial Custom Program – Electric	\$3,309,964	\$718,857	\$4,028,821
Commercial and Industrial Prescriptive Initiatives – Electric	\$10,436,525	\$1,435,934	\$11,872,459
Distributor Initiatives – Electric	\$6,794,125	\$1,189,232	\$7,983,357
Retail Initiatives – Electric	\$4,847,476	\$2,931,221	\$7,778,697
Home Energy Savings Program – Electric	\$11,409,081	\$1,430,636	\$12,839,717
Low-Income Initiatives – Electric	\$895,844	\$405,435	\$1,301,279
Demand Management Program	\$407,064	\$253,616	\$660,680
Strategic Initiatives – Electric	\$0	\$1,748,166	\$1,748,166
Administration – Electric	\$0	\$2,471,420	\$2,471,420
Total	\$38,100,078	\$12,584,516	\$50,684,594

Table C-2: Expenditures – Major Thermal Programs

Program	Incentive	Delivery	Total
Commercial and Industrial Custom Program – Natural Gas	\$151,144	\$83,331	\$234,475
Commercial and Industrial Custom Program – Unregulated Fuels	\$13,568	\$641,194	\$654,762
Commercial and Industrial Prescriptive Initiatives – Natural Gas	\$143,158	\$3,381	\$146,539
Commercial and Industrial Prescriptive Initiatives – Unregulated Fuels	\$6,139,975	\$948,827	\$7,088,802
Home Energy Savings Program – Unregulated Fuels	\$5,960,024	\$2,097,101	\$8,057,125
Low-Income Initiatives – Unregulated Fuels	\$19,565,335	\$4,396,938	\$23,962,273
Electric Vehicle Initiatives – EV Rebates	\$2,366,974	\$268,399	\$2,635,373
Strategic Initiatives – Thermal	\$0	\$413,986	\$413,986
Administration – Thermal	\$0	\$2,012,898	\$2,012,898
Total	\$34,340,177	\$10,865,810	\$45,205,986

Table C-3: Expenditures – Other Initiatives¹²⁷

Initiative	Incentive	Delivery	Total
Efficiency Maine Green Bank ¹²⁸	\$0	\$694,079	\$694,079
Lead By Example Initiative	\$70,930	\$244,576	\$315,506
Agricultural Fair Assistance Program	\$493,237	\$723	\$493,960
Thermal Energy Investment Program	\$0	\$0	\$0
High-Performance Affordable Housing Pilot	\$417,454	\$0	\$417,454
Electric Vehicle Initiatives – EV Supply Equipment	\$1,250,613	\$708,688	\$1,959,302
Administration – Other	\$0	\$72,834	\$72,834
Total	\$2,232,234	\$1,721,434	\$3,953,668

¹²⁷ This table only lists those Other Initiatives that expended funds in FY2024 (i.e., those with no expenditures are not listed).

¹²⁸ Reflects loan servicing support expenditures only (i.e., not the loans themselves). For detail on FY2024 loan activity, see the Other Initiatives – Efficiency Maine Green Bank section.

Appendix D: FY2025 Budget

Table D-1: FY2024 Budget as Approved by the Board of Trustees 10/3/2024

	EMT ADMIN FUND	REGIONAL GREENHOUSE GAS INITIATIVE	ELECTRIC EFFICIENCY PROCUREMENT	FCM HEAT PUMP INITIATIVE	NATURAL GAS EFFICIENCY PROCUREMENT	ENERGY EFFICIENCY & RENEWABLE RESOURCE FUND	AGRICULTURAL FAIRS	THERMAL ENERGY INVESTMENT FUND	VW SETTLEMENT FUNDS	NEEC SETTLEMENT FUNDS	AMERICAN RESCUE PLAN FUNDS	INFLATION REDUCTION ACT FUNDS	OFFICE OF CLEAN ENERGY DEMONSTRATIONS FUNDS	NEW FUNDS	CHARGING & FUELING INFRASTRUCTURE FUNDS	LO 1955 FUNDS	REVOLVING LOAN FUNDS	FY 2021 TOTAL BUDGET
TOTAL REVENUES AND USE OF FUND BALANCE	5,809,424	59,719,931	83,274,812	6,087,648	1,742,885	332,683	27,200	3,025,864	1,175,250	8,816,958	33,000,000	13,618,880	2,222,223	15,000,000	12,000,000	2,420,541	1,325,173	249,599,471
C&I CUSTOM PROGRAM	-	9,452,603	6,637,929	-	-	-	-	-	-	-	4,974,760	-	-	-	-	-	-	21,065,292
C&I PRESCRIPTIVE PROGRAM	-	14,942,275	11,895,266	-	-	-	-	-	-	1,092,649	10,937,574	11,337,129	-	-	-	-	25,000	50,229,893
Commercial Small Business	-	14,942,275	11,895,266	-	-	-	-	-	-	1,092,649	10,937,574	11,337,129	-	-	-	-	-	50,204,893
Commercial Loan Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25,000	25,000
DEMAND MANAGEMENT	-	-	2,069,038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,069,038
INDUSTRIAL CLIMATE INITIATIVE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
THERMAL ENERGY INVESTMENT PROGRAM	-	-	-	-	-	-	-	3,025,864	-	-	-	-	-	-	-	-	-	3,025,864
DISTRIBUTOR INITIATIVES	-	-	10,103,651	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,103,651
RETAIL INITIATIVES	-	-	11,578,697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,578,697
HOME ENERGY SAVINGS PROGRAM	-	17,738,327	8,653,914	1,828,232	-	-	-	-	-	-	-	-	2,222,223	-	-	-	910,000	31,352,696
Home Energy Savings Program	-	16,338,327	8,653,914	1,828,232	-	-	-	-	-	-	-	-	2,222,223	-	-	-	-	29,042,696
Revolving Loan Support	-	1,400,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	660,000	2,060,000
Loan Loss Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250,000	250,000
LOW-INCOME INITIATIVES	-	15,010,673	19,904,937	3,997,268	-	-	-	-	-	1,333,333	9,928,410	1,963,091	-	-	-	-	-	52,137,712
AGRICULTURAL FAIR INITIATIVES	-	-	-	-	-	-	27,200	-	-	-	-	-	-	-	-	-	-	27,200
RENEWABLES	-	-	-	-	-	162,858	-	-	-	-	-	-	-	-	-	-	-	162,858
ELECTRIC VEHICLE SUPPLY EQUIPMENT	-	-	-	-	-	-	-	-	-	5,649,093	6,981,861	-	-	14,981,861	12,000,000	-	-	39,612,815
ELECTRIC VEHICLE ACCELERATOR PROGRAM	-	-	2,800,000	-	-	-	-	-	-	741,883	-	-	-	-	-	2,420,541	-	5,962,424
LEAD BY EXAMPLE INITIATIVE	-	-	-	-	-	-	-	-	1,175,250	-	-	-	-	-	-	-	-	1,175,250
INNOVATION	-	390,831	815,899	58,255	-	-	-	-	-	-	-	-	-	-	-	-	-	1,264,985
PUBLIC INFORMATION	-	308,473	531,231	-	-	-	-	-	-	-	-	-	-	-	-	-	-	839,704
EM&V	-	493,576	2,394,398	145,638	-	-	-	-	-	-	-	-	-	-	-	-	-	3,033,612
ADMINISTRATION	5,799,424	799,000	5,235,424	-	-	-	-	-	-	-	177,395	318,660	-	18,139	-	-	370,141	12,718,183
INTER-AGENCY TRANSFERS	10,000	284,000	654,428	58,255	1,742,885	169,825	-	-	-	-	-	-	-	-	-	-	-	2,919,393
Public Utilities Commission	-	129,000	654,428	58,255	1,742,885	169,825	-	-	-	-	-	-	-	-	-	-	-	2,754,393
RGGI Rate Relief	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RGGI Inc Operating Costs	-	70,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70,000
Department of Environmental Protection	-	85,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85,000
Governor's Energy Office	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,000
DECD (Maine Technology Institute)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	5,809,424	59,419,758	83,274,812	6,087,648	1,742,885	332,683	27,200	3,025,864	1,175,250	8,816,958	33,000,000	13,618,880	2,222,223	15,000,000	12,000,000	2,420,541	1,305,141	249,279,266
RESERVED FUND BALANCE	1,048,191	2,857,558	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27,140,399	31,046,148

Appendix E: Public Utilities Commission Assessments and Revenue Collections

Table E-1: Public Utilities Commission Assessments and Revenue Collections

PUC Assessments and Revenue Collections - FY 2024					
Electric Efficiency Procurement					
Procurement Quarter:	Jul-Sep 2023	Oct-Dec 2023	Jan-Mar 2024	Apr-Jun 2024	Total - FY 2024
Billing Date:	1-Jul-23	31-Oct-23	1-Jan-24	1-Apr-24	
Name					
Central Maine Power Co	\$ 6,759,213	\$ 6,759,213	\$ 6,759,213	\$ 6,759,213	\$ 27,036,852
Eastern Maine Electric Coop	84,052	84,052	84,052	84,052	336,208
Versant (formerly Emera)	1,502,470	1,502,470	1,502,470	1,502,470	6,009,879
Fox Island Electric Coop	8,829	8,829	8,829	8,829	35,317
Houlton Water Co	54,092	54,092	54,092	54,092	216,367
Kennebunk Light & Power	97,322	97,322	97,322	97,322	389,289
Madison Electric Works	31,255	31,255	31,255	31,255	125,020
Van Buren Light & Power Co	12,258	12,258	12,258	12,258	49,033
Totals	\$ 8,549,491	\$ 8,549,491	\$ 8,549,491	\$ 8,549,491	\$ 34,197,965
Revenue Forecast					
	FY 2025				
Central Maine Power Co	\$ 47,395,333				
Eastern Maine Electric Coop	630,614.98				
Versant (formerly Emera)	10,918,401.31				
Fox Island Electric Coop	65,412.58				
Houlton Water Co	452,580.23				
Kennebunk Light & Power	610,252.90				
Madison Electric Works	186,580.69				
Van Buren Light & Power Co	91,181.91				
Total	\$ 60,350,358				
Natural Gas Efficiency Procurement					
	Total - FY 2024		Revenue Forecast - FY 2025		
Name					
Northern Utilities - Unutil	\$	747,228	\$	-	
Bangor Natural Gas		176,019		-	
Maine Natural Gas		14,430		-	
Summit Natural Gas		-		-	
Totals	\$	937,677	\$	-	
Alternative Compliance Mechanism (ACM)					
Assessment Timeframe:	Jul '23- June '24	Total - FY 2024			
Billing Date:	N/A				
Name		Total - FY 2024			
Class I & Class IA	\$ 50,100	\$ 50,100			
Thermal	1,343,350	1,343,350			
Totals	\$ 1,393,450	\$ 1,393,450			

As Ordered by the PUC on 5/29/2024 in Docket 2022-0039 –PROCUREMENT OF ELECTRIC RESOURCES AND ASSESSMENT FOR NATURAL GAS RESOURCES FOR FIFTH TRIENNIAL PLAN FY2023-2025. Note: these revenue forecasts reflect the use of FY2024 carryforward funding to reduce the need for assessments and the suspension of natural gas programs for FY25.

Appendix F: Maine Jobs and Recovery Plan Initiatives

In January 2021, the U.S. Congress enacted the American Rescue Plan Act (ARPA), a federal stimulus bill to aid, among other things, economic recovery from the COVID-19 pandemic. The plan included funding for state governments through the Coronavirus State and Local Fiscal Recovery Funds (SLFRF). Approximately \$1 billion of the SLFRF was allocated to the State of Maine to respond to the pandemic and support economic recovery.

In May 2021, Governor Mills put forth a proposal—the Maine Jobs and Recovery Plan (MJRP)—outlining her administration’s priorities for using these funds. The Maine Legislature approved the plan in July 2021, enacting LD 1733, An Act To Provide Allocations for the Distribution of State Fiscal Recovery Funds.¹²⁹

The MJRP allocated \$50 million to the Trust to accelerate weatherization upgrades for low- and moderate-income residents, and to expand energy efficiency investment among local governments, schools, community organizations, and businesses. The MJRP also allocated \$8 million to MaineDOT to expand state, municipal, and other publicly accessible EV charging stations and related infrastructure in partnership with Efficiency Maine.

In collaboration with other agencies and offices of state government, Efficiency Maine prepared a series of five initiatives that incorporate both the goals of the MJRP and the federal guidelines for uses for the SLFRF. These initiatives were designed to assist different customer segments of the Maine economy that experienced a disproportionately negative economic impact related to the COVID-19 pandemic. Each is described below, along with a summary of FY2024 activity and performance metrics, and a summary of total activity and performance metrics to date.¹³⁰ The performance metrics provided are those required for compliance with federal reporting requirements. The Trust will continue to run many of these initiatives in FY2025 and FY2026. All funds must be expended by December 31, 2026.

1. Low- and Moderate-Income Weatherization Initiative

This \$25 million initiative provides financial incentives to accelerate weatherization (air sealing and insulation) in low- and moderate-income residential dwellings, as well as supplemental heat pump projects in low-income dwellings. The Trust runs this effort through its standard Low-Income Initiatives, offering market-based rebates for the associated projects. This influx of federal funds was instrumental in driving record weatherization activity in the program in FY2023 and FY2024, as described in the [Low-Income Initiatives](#) section. While heat pump rebates for all other sectors shifted to a “whole-home/whole-building” approach in FY2024, the Trust decided to preserve (and increase) rebates for supplemental heat pumps in low-income households using MJRP funds in acknowledgement of the fact

¹²⁹ Public Law, Chapter 483, 130th Maine State Legislature, First Special Session, LD 1733, An Act To Provide Allocations for the Distribution of State Fiscal Recovery Funds.

¹³⁰ The FY2024 performance metrics reflected in the tables are as reported to the Department of Financial and Administrative Services in July 2024. They reflect results associated with projects that were completed and paid in FY2024. There are several additional projects underway or in the pipeline that will be captured in future fiscal years.

that these customers are less likely to have a tax liability that allows them to take advantage of the new federal tax credit for heat pumps.

Table F-1: Low-and Moderate-Income Weatherization Initiative – Performance Metrics

Performance Metric	FY2024 Results	Total Results since Inception
Funds invested	\$7,987,218	\$14,308,073
Participants	1,141	2,011
Equity – number of participants in economically disadvantaged communities ¹³¹	596	1,192
Equity – participant household income ¹³²	8% -- less than \$15,000 26% -- \$15,000 to \$34,999 19% -- \$35,000 to \$49,999 27% -- \$50,000 to \$74,999 10% -- \$75,000 to \$99,999 2% -- over \$100,000 8% -- preferred not to indicate	8% -- less than \$15,000 25% -- \$15,000 to \$34,999 19% -- \$35,000 to \$49,999 24% -- \$50,000 to \$74,999 10% -- \$75,000 to \$99,999 3% -- over \$100,000 11% -- preferred not to indicate
Lifetime cost savings ¹³³	\$4,574,250	\$8,980,442
Lifetime carbon reductions	36,990 tons of CO ₂ e	64,178 tons of CO ₂ e
Number of participating contractors	89	96

2. Hospitality Retrofit Initiative

This \$4 million initiative provides financial incentives and technical assistance to support energy efficiency upgrades for businesses in Maine’s travel, tourism, and hospitality sector. It prioritizes small businesses¹³⁴ and HVAC beneficial electrification projects.

In FY2023, the Trust managed a Funding Opportunity Notice for Hospitality Retrofits through the C&I Prescriptive Initiatives. The FON targeted small restaurants, hotels, motels, inns, and bed and breakfasts, providing enhanced incentives for HVAC and refrigeration projects. The Trust leveraged ARPA funds for the HVAC electrification measures using heat pump technology. The Trust issued a second round of this FON in FY2024, targeting the same subset of eligible participants but limiting project incentives to ARPA-funded HVAC electrification measures using heat pump technology.

¹³¹ For its MJRP initiatives, the Trust defines “economically disadvantaged community” as a municipality with a median income level below the state’s median income level.

¹³² This data was collected through a voluntary participant survey.

¹³³ Lifetime cost savings is equal to the lifetime benefits minus the total costs paid by the participant and Efficiency Maine. Lifetime benefits and lifetime cost of increase energy are assessed using the avoided cost of energy supply.

¹³⁴ For its MJRP initiatives, the Trust defines “small business” as a customer of a T&D utility that is designated in the utility’s distribution rates to receive general service through the customer class reserved for small non-residential users, including where applicable the small general service and the medium general service customer classes.

Table F-2: Hospitality Retrofit Initiative – Performance Metrics

Performance Metric	FY2024 Results	Total Results since Inception
Funds invested	\$1,965,562	\$2,751,049
Participants	35	64
Equity – number of participants with minority-owned, women-owned and veteran-owned business status	5 minority-owned, veteran-owned, and women-owned businesses	19 minority-owned, veteran-owned, and women-owned businesses
Equity – number of participating small businesses	32	61
Equity – number of participants in rural areas and small towns	35 in rural areas 16 in small towns	63 in rural areas 30 in small towns
Lifetime cost savings	\$2,922,550	\$4,327,632
Lifetime carbon reductions	14,919 tons of CO ₂ e	20,786 tons of CO ₂ e

3. Energy Efficiency Initiative for Local Government, Public Schools, and Congregate Housing

This \$15 million initiative provides financial incentives and technical assistance to support energy efficiency upgrades at buildings owned or leased by local governments (including municipal, county, or tribal governments), public schools, and community organizations providing congregate housing (e.g., long-term care, group home, and supportive housing facilities). It prioritizes entities (1) serving small population sizes,¹³⁵ (2) located in rural areas,¹³⁶ and (3) serving economically disadvantaged communities. It also prioritizes HVAC beneficial electrification projects.

In FY2023, the Trust operated the initiative using three FONs through the C&I Prescriptive Initiatives. The FON for School Retrofits targeted PreK-12 public schools in smaller towns and districts; the FON for Small Municipality Retrofits targeted municipalities with fewer than 5,000 residents and tribal governments; and the FON for Long-Term Care Facility Retrofits targeted assisted-living program facilities, continuing care communities, nursing homes, memory care facilities, and hospice facilities. All three FONs provided enhanced incentives for HVAC, lighting, and refrigeration projects, leveraging ARPA funds specifically for the HVAC electrification measures using heat pump technology.

In FY2024, the Trust continued to manage many of the FONs initiated in FY2023. It also launched second rounds of two FONs that closed, each with slightly different eligibility criteria. The FON for Municipal Electrification Retrofits built upon the previous FON for Small Municipality Retrofits, targeting slightly larger municipalities (between 5,000 and 10,000 residents) and limiting eligibility to whole-building/-zone HVAC equipment using heat pump technology. The second-round FON for School Retrofits expanded beyond PreK-12 schools in smaller towns and districts to include schools statewide, provided that they currently heat with oil or propane fuel. It also limited eligibility to whole-building/-zone HVAC equipment using heat pump technology.

¹³⁵ For its MJRP initiatives, the Trust defines “small town” as a municipality with a population of 5,000 or less.

¹³⁶ For its MJRP initiatives, the Trust defines “rural area” as any municipality deemed “rural” by the U.S.

Department of Agriculture for multifamily housing; this translates to any municipality in Maine except Portland, South Portland, Westbrook, Lewiston, Auburn, and Bangor.

Finally, the Trust launched an entirely new FON for Assisted Housing Retrofits, targeting beneficial electrification HVAC and water heating upgrades in certain facilities that provide independent housing with services, assisted living centers, residential care facilities, and private non-medical institutions.

Table F-3: Energy Efficiency Initiative for Local Government, Public Schools, and Congregate Housing – Performance Metrics

Performance Metric	FY2024 Results	Total Results since Inception
Funds invested	\$2,353,839	\$2,713,860
Participants	94	123
Equity – number of participants in economically disadvantaged communities	60	80
Equity – number of participants in rural areas and small towns	94 in rural areas 81 in small towns	123 in rural areas 104 in small towns
Lifetime cost savings	\$4,532,192	\$4,990,634
Lifetime carbon reductions	21,199 tons of CO ₂ e	23,757 tons of CO ₂ e

4. Energy Efficiency Initiative for Manufacturers

This \$6 million initiative provides financial incentives to support high-efficiency, clean energy upgrades for businesses in Maine’s manufacturing sector. It prioritizes measures that receive significant reductions in energy costs, carbon emissions, or both.

In FY2024, the Trust continued to advance the initiative with the Program Opportunity Notice (PON) for Manufacturer Thermal Efficiency Projects through the C&I Custom Program. This PON provided enhanced incentives for projects that reduce the use of natural gas, oil, biomass, and other fuels, granting bonus incentives for beneficial electrification and heat recovery projects. As with most custom projects, the project development process can take several months. Though the Trust did not complete any projects under this initiative in FY2024, the project awarded in FY2023 began construction. The Trust also awarded six additional projects in FY2024 and anticipates the first of these to complete their installations in FY2025. The Trust expects to award the remaining budget in early FY2025 to one or more projects that are actively in the pipeline.

Table F-4: Energy Efficiency Initiative for Manufacturers – Performance Metrics

Performance Metric	FY2024 Results	Total Results to Date
Funds invested	\$476,406	\$645,155
Participants	0	0
Equity – number of participants in rural areas and small towns	N/A	N/A
Lifetime cost savings	N/A	N/A
Lifetime carbon reductions	N/A	N/A

5. EV Charging Infrastructure Initiative

This \$8 million initiative provides financial incentives to support the continued expansion of Maine’s public EV charging network. It prioritizes less populous, more remote routes, towns, and destinations

that are not able to be funded by the federal Bipartisan Infrastructure Law funds (especially in areas not served by existing charging infrastructure). It also prioritizes charger installations in disadvantaged communities¹³⁷ and charging opportunities for apartment dwellers who cannot install a charger at home.

In FY2023, the Trust managed two rounds of FONs for Rural Level 2 EV Charging to support this initiative. The first targeted rural installations in Maine’s 14 northern counties (i.e., all counties except Cumberland and York), and the second targeted rural installations in Cumberland County and York County. The Trust also ran two rounds of an RFP (“Phase 4”) for DC fast-charging stations, awarding funds for public fast chargers on state priority corridors. (The second round was not awarded until FY2024.) Both rounds targeted installations in Aroostook and Washington Counties, connecting southern and central Maine communities with the Crown of Maine and the Eastern border with New Brunswick.

In FY2024, the Trust completed and paid out a number of projects awarded in FY2023 under the aforementioned solicitations. It also launched a new RFP for Electric Vehicle DC Fast Chargers at Maine Destinations, awarding funds for public fast chargers in Rangeley, Greenville/Moosehead, Millinocket, Gorham/Standish, and Orono.

Table F-5: EV Charging Infrastructure Initiative – Performance Metrics

Performance Metric	FY2024 Results	Total Results to Date
Funds invested	\$1,019,888	\$1,111,984
Total number and size of EV charger plugs (ports) installed and total number of sites added to the state’s network of public chargers	134 Level 2 plugs between 50 sites 3 Level 3 plugs at 1 site	140 Level 2 plugs between 53 sites 3 Level 3 plugs at 1 site
Equity – number and power levels (kW) of plugs installed in disadvantaged communities (DACs); investment in DACs as a percentage of total investment	46 Level 2 plugs at 18 sites in a DAC 3 Level 3 plugs at 1 site in a DAC 55% of incentives were paid in DACs	48 Level 2 plugs at 19 sites in a DAC 3 Level 3 plugs at 1 site in a DAC 55% of incentives were paid in DACs
EV charger investments per capita (by town)	See Table F-6	See Table F-6
Charging station usage (for networked Level 3 chargers only)	Van Buren station – 750 kWh across 36 sessions, averaging 21 kWh/session. Peak power averages 60-80 kW.	Van Buren station – 750 kWh across 36 sessions, averaging 21 kWh/session. Peak power averages 60-80 kW.

¹³⁷ For this MJRP initiative, the Trust uses a definition of “disadvantaged community” consistent with the federal Justice40 definition, as reflected in the Argonne National Laboratory’s [EV Charging Justice40 Map](#).

Table F-6: EV Charging Infrastructure Initiative – Investments Per Capita (by Town)

Town	FY2024 Investment	Total Investment to Date
Van Buren	\$ 142.71	\$ 142.71
Newry	\$ 26.99	\$ 26.99
Monson	\$ 22.99	\$ 22.99
Carrabassett Valley	\$ 20.68	\$ 20.68
Ogunquit	\$ 20.29	\$ 20.29
Limestone	\$ 18.35	\$ 18.35
Lovell	\$ 11.66	\$ 11.66
Palmyra	\$ 10.40	\$ 10.40
Millinocket	\$ 9.40	\$ 9.40
Woodstock	\$ 8.99	\$ 8.99
Wayne	\$ 8.86	\$ 8.86
Damariscotta	\$ 8.71	\$ 8.71
Winter Harbor	\$ 8.68	\$ 8.68
Norway	\$ 8.50	\$ 8.50
Old Town	\$ 6.15	\$ 6.15
Litchfield	\$ 5.58	\$ 5.58
Bath	\$ 5.48	\$ 5.48
Unity	\$ 5.23	\$ 5.23
St. George	\$ 4.84	\$ 4.84
Gray	\$ 3.87	\$ 3.87
Paris	\$ 3.77	\$ 3.77
Blue Hill	\$ 3.58	\$ 3.58
Madawaska	\$ 3.53	\$ 3.53
Hallowell	\$ 3.25	\$ 3.25
Bridgton	\$ 2.87	\$ 2.87
Rockport	\$ 2.74	\$ 5.48
Rumford	\$ 2.39	\$ 2.39
Presque Isle	\$ 2.27	\$ 2.27
Bucksport	\$ 2.02	\$ 2.02
Rockland	\$ 0	\$ 2.02
Harpwell	\$ 1.99	\$ 1.99
Waldoboro	\$ 1.94	\$ 1.94
Orono	\$ 1.87	\$ 1.87
Wells	\$ 1.77	\$ 1.77
Topsham	\$ 1.46	\$ 1.46
Hampden	\$ 1.02	\$ 1.02
Scarborough	\$ 0.90	\$ 0.90
Brunswick	\$ 0.90	\$ 0.90
Sanford	\$ 0.78	\$ 0.78
Bar Harbor	\$ 0.34	\$ 0.34
Biddeford	\$ 0.15	\$ 0.15

Appendix G: Energy Efficiency in Manufactured Housing

In 2023, the Legislature enacted LD 815, An Act To Provide Energy Efficiency Program Outreach and Assistance to Manufactured Housing Residents, requiring the Trust to provide an education and outreach program to low- and moderate-income residents of manufactured housing to increase awareness of energy efficiency programs.¹³⁸ The law also requires the Trust to report on the activities and results of this program in FY2024, FY2025, and FY2026. This Appendix serves to satisfy the FY2024 reporting requirement.

Efficiency Maine Program Offerings for Manufactured Homes

Residents of manufactured homes in Maine are eligible for, and generally participate in, the Trust's standard residential program offerings, including those that provide rebates for heat pumps, weatherization, electric vehicles, and demand management.¹³⁹ Many of these programs provide enhanced incentives for qualifying low- and moderate-income customers.

Over the last few years, the Trust has also managed a targeted initiative through its Innovation program testing whole-home heat pump retrofits in manufactured homes. Based on favorable results in single-wide homes in and south of Bangor, the Trust transitioned to a broader program offering in FY2024: the Manufactured (Mobile) Home Initiative. The Trust simultaneously continues to expand the Innovation pilot scope, testing additional sites with a slightly different baseline—double-wide manufactured homes and manufactured homes located north of Bangor—and assessing alternative equipment configurations.¹⁴⁰ In FY2024, all activity in this initiative (both the broader program offering and the pilot projects) was limited to low-income homeowners.

As described in the Efficiency Maine Green Bank section, the Trust provides financing opportunities for homeowners, targeting income-eligible customers and participants in the Manufactured (Mobile) Home Initiative specifically. For its standard residential programs, the Trust provides unsecured Home Energy Loans without borrower fees and with relatively low interest rates. The Manufactured (Mobile) Home Initiative provides a targeted financing option for customers to cover their 20% share of upfront project costs. In FY2024, participants leased the equipment either with a single up-front payment of \$2,000 or 50 monthly payments of \$50. After the payment obligations have been completed, the participant has the option to purchase the equipment for \$1. Additionally, the Trust fully warrants the working operation of the heat pump during this lease period. Over the course of the year, 70 participants enrolled in the initiative; 31 selected the up-front payment option, and 39 selected the monthly payment option. The Trust plans to transition this offering to a loan (instead of a lease) in FY2025,

¹³⁸ Public Law, Chapter 194, 131st Maine State Legislature, First Special Session, LD 815, An Act To Provide Energy Efficiency Program Outreach and Assistance to Manufactured Housing Residents.

¹³⁹ Though residents of manufactured homes are technically also eligible for rebates through Retail Initiatives and Distributor Initiatives, the current measure offerings through those programs are not applicable to manufactured homes. Heat pump water heaters generally require unfinished basements, and ECM circulator pumps are for boilers; manufactured homes do not have basements and generally use furnaces.

¹⁴⁰ For additional detail, see the [Innovation](#) section.

requiring that installers provide customers a full five-year parts and labor warranty. The loan approach more clearly establishes customer ownership of the equipment from the beginning.

Table G-1 provides a summary of the Trust's FY2024 investment in manufactured housing by major incentive program. Where applicable, it indicates whether the activity applied specifically to low- and moderate-income residents, or whether it was a standard rebate available to all income levels.

Table G-1: Investment in Manufactured Housing¹⁴¹

Major Program	Subcategory	Number of Participants	FY2024 Investment ¹⁴²
Low-Income Initiatives	Manufactured (Mobile) Home Initiative (low-income)	70	\$1,094,564
Low-Income Initiatives	low- and moderate-income heat pump rebates	95	\$434,601
Low-Income Initiatives	low- and moderate-income weatherization rebates	74	\$402,558
Low-Income Initiatives	Arrearage Management Program	63	\$1,741
Low-Income Initiatives	heat pump water heaters and DIY kits	144	\$21,854
Innovation	Manufactured (Mobile) Home Innovation pilot	8	\$96,279
EV Initiatives	low- and moderate-income EV rebates	14	\$24,000
Demand Management Program	Load Shifting Initiative (EV charging and batteries)	0	\$0
Retail Initiatives and Distributor Initiatives	clothes washers, heat pump water heaters	220	\$310,750
Home Energy Savings Program	standard (any-income) heat pump rebates	116	\$260,417
Home Energy Savings Program	standard (any-income) weatherization rebates	10	\$19,926
Total		814	\$2,666,689

Education and Outreach to Manufactured Homes

The Trust conducts education and outreach to residents of manufactured housing through both its standard program marketing, as well as more directly through the Manufactured (Mobile) Home Initiative.

Standard program outreach channels include the Trust's website, Google Ads, Facebook posts and ads, radio spots, direct mail campaigns, email campaigns, and print advertising. The Trust also collaborates with various non-profit organizations, municipalities, trade associations, and landlords, leveraging their communications channels and often participating in outreach events. Additionally, it draws upon the

¹⁴¹ Manufactured home participation in the Low-income Initiatives and Home Energy Savings Program weatherization initiatives are based on self-reported home type. It is unknown how many people living in manufactured homes reported "single-family home" as their house type. The Innovation program only serves manufactured homes. All other program participation is based on address matching to tax assessment data. There is uncertainty in the data presented, with a higher chance that the mobile home participant rates are underestimated rather than overestimated.

¹⁴² Figures in this column reflect the Trust's incentives only (i.e., no administrative or "program delivery" costs).

networks of the members of the Efficiency Maine Low-Income Advisory Group, which comprises staff responsible for programs serving low-income households at community organizations, municipalities, Maine Equal Justice, multiple utilities, the Office of the Public Advocate, and the Public Utilities Commission, among others.

With the launch of the Manufactured (Mobile) Home Initiative in FY2024, the Trust initiated a more targeted education and outreach effort direct specifically at manufactured homes. In coordination with MaineHousing, it developed a strategy that promoted the initiative's whole-home heat pump offering alongside additional information about other Efficiency Maine rebates and MaineHousing programs. The Trust started by sending out mailers explaining the whole-home heat pump offering to more than 17,000 homeowners living in manufactured homes.

Among these contacts were all single-wide manufactured homeowners in and south of Bangor that had participated in MaineHousing's Weatherization Assistance Program (WAP) in the past 10 years. It also included all households on MaineHousing's Home Energy Assistance Program (HEAP) list that indicated "mobile home" as the housing type. The Trust complemented these mailers with door-to-door outreach at several manufactured home parks, including Linnhaven Mobile Home Park (Brunswick), Country Village (Saco), Greystone Mobile Home Park (Veazie), Guillemette Trailer Park (Sanford), and Wayfarer Village (New Gloucester). It also distributed flyers to park managers at 10 additional parks. Trust Staff also offered several presentations and local libraries and other community meeting places, providing overviews of the Manufactured (Mobile) Home Initiative and other Efficiency Maine rebate programs. For one such event at Maplewood Manor in Brunswick, the Trust partnered with professors at the University of Maine Orono and Bowdoin College to present current rebate offerings to homeowners.

The Trust's education and outreach efforts also extend beyond the initial customer acquisition phase. For example, homeowners who move ahead with a whole-home heat pump retrofit through the Manufactured (Mobile) Home initiative are provided with information about other Efficiency Maine program rebates and MaineHousing programs that might help supplement their new upgrade. Staff also assists those participants that receive a HEAP benefit in switching that benefit to apply to their electric bill (instead of their fuel bill), helping make the necessary connections with the relevant Community Action Agency.

FY2025 Plans

In FY2024, the Trust received national attention for its Manufactured (Mobile) Home Initiative and secured two significant federal grants to support its expansion over the next few years. First, Maine was awarded a \$10 million competitive grant through the U.S. Department of Energy's (DOE's) Bipartisan Infrastructure Law (BIL)-funded Energy Improvements in Rural or Remote Areas program to support the installation of whole-home heat pumps in manufactured (mobile) homes. Second, Maine's DOE-approved plan for the use of its Inflation Reduction Act (IRA) Home Energy Rebates program funds includes allocating approximately \$15 million to the Manufactured (Mobile) Home Initiative. The Trust expects that these funds will support whole-home heat pump retrofits in more than 1,000 manufactured homes over the next five to seven years. With this influx of federal funding, the Trust will significantly expand its outreach efforts to manufactured homes in FY2025.

Appendix H: Glossary

Adjusted Gross Savings: The change in energy consumption and/or demand that results directly from program-related actions taken by participants in an Efficiency Maine program, regardless of why they participated, adjusted for installation rates and savings rates verified through program evaluations.

Arrearage: Unpaid debt or overdue payments.

Avoided Energy Supply Costs: Costs that would have been incurred had a utility and/or energy supplier otherwise been required to supply the power that was avoided through the installation of an energy efficiency or distributed generation project. The avoided costs include the wholesale cost of energy and capacity, the costs of complying with renewable energy and climate policies, plus the marginal costs of adding future T&D (but not the retail cost of T&D).

Benefit-to-Cost Ratio: The ratio of the net present value of the quantifiable financial benefits to the costs of an efficiency measure. The benefits and costs included in the calculation are dependent on the test used. See glossary entries of Primary Benefit-Cost Test and Program Administrator Cost Test.

Community Action Agencies: Non-profit private and public organizations established under the U.S. Economic Opportunity Act of 1964 to reduce poverty. Community Action Agencies deliver emergency services, education, training, housing, weatherization services, and more.

Free Rider: A program participant who, as determined through surveys and market analysis, would have installed equivalent efficiency measures independent of the Trust's program or its incentives.

Lifetime Benefit: The net present value of the avoided energy supply cost of energy and demand savings, and avoided operation and maintenance costs, over the measure life.

Maximum Achievable Cost-Effective (MACE): An energy efficiency industry term that refers to the full universe of potential cost-effective energy efficiency projects that could realistically be installed given technical and economic constraints and assumed adoption rates based on offered incentives.

Measure Life: The length of time that a measure is expected to be functional. Measure life is a function of: (1) *equipment life*, the number of years that a measure is installed and operates until failure, and (2) *measure persistence*, which takes into account business turnover, early retirement of installed equipment, and other reasons that measures might be removed or discontinued. Measure life is sometimes referred to as expected useful life.

Midstream: Incentive programs for energy-efficient products are characterized as midstream, upstream, or downstream depending on who receives the incentives. Upstream programs provide incentives for manufacturers to make more efficient products, and downstream programs provide rebates for consumers, encouraging them to purchase more efficient products. A midstream program provides incentives at the retailer or distributor level, encouraging them to stock and sell more high-efficiency equipment models.

Net Savings: An estimate of the amount of adjusted gross savings that can be directly and indirectly attributed to a program based on program participants' motivation. Participants who, in the determination of the evaluators, would have installed equivalent efficiency measures independent of the program and its incentives are considered "free riders." To calculate net savings, the impacts of savings attributed to free riders are excluded. By contrast, savings realized by program participants through the installation of *additional* efficiency measures due to program influences, even though no incentive or TA was received (called "spillover"), are added.

Net-to-Gross (NTG) Ratio: The ratio of net savings to adjusted gross savings. The NTG ratio is defined as 1 minus the free ridership (FR) rate plus the spillover (SO) rate (NTG ratio = $1 - FR + SO$).

Primary Benefit-Cost Test: This cost-effectiveness test captures the perspective of all utility customers—both participants and non-participants. The Primary test compares combined program administrator and customer costs to utility resource savings. The Primary test measures the benefits of the energy efficiency program for the region. Costs included in the Primary test are those used to purchase and install the energy efficiency measure, such as the costs incurred by program participants, costs incurred due to increased energy use, and costs of running the energy efficiency program. The benefits included are the avoided energy supply cost; avoided cost of water; and when quantifiable, avoided operation and maintenance costs.

Program Administrator Cost Test: This cost-effectiveness test compares Efficiency Maine's costs to supply-side resource savings. A positive PACT (>1) indicates that an energy efficiency program is a lower-cost approach to meeting load growth than a wholesale energy purchase and new generation resources (including delivery and system costs). The PACT includes only costs incurred by the program administrator and not customer contributions.

Qualified Partner: A term used to describe the network of contractors and vendors working with Efficiency Maine's Commercial & Industrial Prescriptive Initiatives.

Residential Registered Vendor: A term used to describe the network of contractors and vendors working with Efficiency Maine's residential programs.

Spillover: Savings realized by program participants through the installation of *additional* efficiency measures due to program influences, even though no incentive or TA was received.