

State Of Maine
Office of the Public Advocate
Electric Ratepayer Advisory Council



Third Annual Report
December 1, 2024

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1.0 Executive Summary

The Act to Create the Electric Ratepayer Advisory Council, Public Law 2021, chapter 623 (LD 1913)¹, requires an annual report from the Office of the Public Advocate (OPA) and the Electric Ratepayer Advisory Council (ERAC) to the Energy and Utilities Committee (EUT) of the Legislature on the activities and recommendations of the Council. This document is ERAC's third Annual Report.

The Electric Ratepayer Advisory Council is made up of 18 members.² Thirteen members representing the ratepaying public are appointed by the Public Advocate to three-year terms, as required by statute. There are five ex-officio members representing State of Maine agencies. In 2024, the Council met monthly to determine goals, define areas for research, and analyze findings. In 2024, the Council focused on two important areas of concern: (1) the burden on low-income consumers resulting from the rising cost of energy; and (2) the financial impact on consumers caused by competitive electricity providers (CEPs) charging more than the Standard Offer price. The Council retained Vermont Energy Investment Corporation (VEIC) to perform the energy burden study and Baldwin Consulting to conduct the CEP study.

Although the recommendations and findings in this Report do not necessarily reflect the views of all the individual Council members, nor the organizations they represent, a significant number of the voting members of the Council believe that each of the 20 recommendations has merit and deserves the careful consideration of the Legislature and policy makers. It is important to note that the five ex-officio members on the Council representing state agencies (Office of the Public Advocate, Governor's Energy Office, Public Utilities Commission, Efficiency Maine Trust, and Maine State Housing Authority) are non-voting members of the Council.

The studies are summarized in this Report, and the full text of the consultants' reports are provided in the Appendix of this document.

A complete list of ERAC recommendations is provided in Section 2.

¹ See Appendix A

² A list of Electric Ratepayer Advisory Council (ERAC) membership as of December 1, 2024 is included as Appendix B of this report.

2.0 2024 ERAC Recommendations

The Council is pleased to submit the following 20 recommendations for consideration by the Legislature and policy makers.

Further Investigate the Retail Electricity Supply Market

1. Support legislation to allow the OPA, subject to Public Utilities Commission (PUC) approval, access to CEP data held by utilities to fully investigate the extent to which low-income households are being overcharged by CEPs.
2. Use the data referenced above to enable ERAC to expand its investigation of the ongoing CEP residential overcharging (\$135M over eight years) to more precisely calculate how much of it is paid by low-income consumers.

Expand Low-Income Assistance Program (LIAP)

3. Increase LIAP funding from ratepayers and/or taxpayers to help close the affordability gap so that, on average, consumers are not spending more than 4% of household income on electricity.
4. Increase taxpayer funding by dedicating the existing state sales tax on electricity to LIAP funding.

Improve Administration of LIAP

5. Make LIAP enrollment automatic for Department of Health and Human Services (DHHS) clients with household incomes that qualify for LIAP with an opt-out provision.
6. Until automatic enrollment is implemented, continue the current DHHS- expedited LIAP enrollment program which provides an enrollment letter to qualifying households.
7. Convert LIAP benefits to a uniform monthly percentage discount applied to current bills, rather than two lump sum bill credits per year. Set these LIAP discount percentages for each of the four Federal Poverty Level (FPL) tiers to achieve an average 4% affordability target in each tier, thereby providing higher benefits for lower income ratepayers.
8. Implement an annual true-up, or rate adjustment, with each utility to ensure that they are fully reimbursed for all LIAP benefits and program costs, to be sure that each LIAP participant receives the maximum calculated benefit, regardless of initial budget estimates.

9. Until LIAP is converted to a uniform discount program, reconsider the LIAP benefit amounts when the standard offer rate changes on January 1 during each program year.
10. Until LIAP is converted to a uniform discount program, consider changes to the current program to minimize the likelihood that the current LIAP bill credits are so large they cannot be used by individual ratepayers in the year in which they were awarded.

Increase consumer education and outreach

11. Ensure all LIAP and Arrearage Management Program (AMP) participants have a clear understanding of the energy efficiency programs available to them.
12. Increase understanding and education regarding common reasons for high electric bills.
13. Encourage LIAP participants with arrearages to participate in AMP.
14. Increase consumer awareness of safety issues and potentially significant financial burden of using space heaters for winter heating.
15. Promote EMT as a source of information and programs for managing high energy costs.

Other Recommendations

16. Make reasonable accommodation in the implementation of these recommendations for the consumer-owned utilities (COUs) that have limited resources and for investor-owned utilities (IOUs) whose billing systems may take time to implement.
17. Support new programs such as Solar for All (SFA) and continued heat pump deployment that provide substantial savings opportunities for all lower income ratepayers.
18. Fund housing programs that improve building conditions, to enable low-income homes to afford structural repairs needed to qualify for government funding of weatherization upgrades.
19. Consider the rising need and cost of summer air conditioning when considering low-income ratepayer benefits.
20. Consider the impact on low-income ratepayers of large arrearages built up during the winter disconnection moratorium.

3.0 Background

An Act to Create the Electric Ratepayer Advisory Council, Public Law 2021, chapter 623 (LD 1913), was approved by the Governor on April 18, 2022.³ ERAC members are appointed by the Public Advocate to three-year terms and include members of the public, subject area experts, industry professionals, and ex officio State of Maine officials. The combined expertise of Council members provides the OPA with significant direction on electricity policy initiatives.⁴ In addition to the formal membership, subject matter experts from Maine agencies, consultants, and the public contribute to the Council's work.

The Act mandates that the Council make recommendations to the Public Advocate regarding methods to ensure that ratepayers can afford electricity in the state. In developing the recommendations, the Council shall:

1. Consider existing and projected rates and existing and planned electric assistance programs, including more streamlined and cost-effective options to provide assistance to all ratepayers who may be struggling to pay their electric utility bills.
2. Identify methods to:
 - a. Fund electric assistance programs that do not result in shifting costs to ratepayers.
 - b. Improve education and outreach efforts regarding electric assistance programs, the retail electricity supply market, and energy efficiency programs.
 - c. Make energy efficiency programs more accessible to low-income, moderate-income, and small business ratepayers, including renters of housing and commercial spaces.
3. Identify other methods that may improve the affordability of electricity.

To accomplish these directives, ERAC sets goals each year and defines advocacy priorities for Maine's low-income electricity assistance programs. ERAC has provided two previous Annual Reports to the Legislature. The [Initial Annual Report](#), dated December 1, 2022, describes the formation of the Council and the landscape in terms of electric utilities, electricity supply, and energy efficiency programs in Maine. SAGE Management Consultants, LLC (SAGE) was retained to conduct research on low-income ratepayer

³ See Appendix A for the full text of the Statute.

⁴ A list of Electric Ratepayer Advisory Council (ERAC) membership as of December 1, 2024 is included as Appendix B of this report.

programs in Maine and New England, as well as background on the need for additional assistance in Maine. ERAC used these findings as the basis for their initial recommendations.

The [Second Annual Report](#), dated December 1, 2023, provides a status update to the Legislature on progress toward implementing the 2022 recommendations. ERAC commissioned SAGE to conduct a Best Practices Study of other states' electric ratepayer assistance programs and to update previous findings on the difference between the amount of assistance needed by Maine's low-income ratepayers and the assistance available – otherwise known as the affordability gap. Findings from this study provided the basis for ERAC's 2023 recommendations.

3.1 Progress on Implementing 2022 and 2023 ERAC Recommendations

3.1.1 Low-Income Assistance Program (LIAP)

Maine's LIAP was created as part of the restructuring of the electric industry (P.L. 1997, Ch. 316, An Act to Restructure the State's Electric Industry) and is the primary state program providing financial assistance to low-income electric ratepayers. In the past, the OPA and ERAC have advocated for substantial increases in funding for LIAP. For the approximately 100,000 low-income residential ratepayers in Maine, the current funding of approximately \$22.5M/year does not come close to closing the “affordability gap⁵” of approximately \$85M/year facing these consumers. A detailed description of the LIAP program is provided in Section III of ERAC's [First Annual Report](#).

In late 2021, with significant input from stakeholders such as the OPA and AARP, the PUC took up amendments to LIAP enrollment rules (Docket No. 2021-00400). The result was an initiative enabling eligible participants in DHHS means-tested programs to enroll after receiving a notification letter from DHHS verifying their eligibility. Since that time, LIAP participation has increased from approximately 24,000 households in the 2021-22 program year, to 47,000 as of September 30, 2024. These enrollment rates remain well short of the estimated 100,000 qualifying ratepayers whose household income falls below 150% of FPL. Increasing funding and simplifying access to LIAP benefits has been a significant focus of ERAC over the past three years and one of the primary reasons for the formation of the Council.

⁵ Source: Quantifying Maine's Household Energy Burden and Affordability Gap, Table 5, page 21.

Previous ERAC Recommendations for Increasing LIAP Funding

1. Increase LIAP funding from ratepayers and add new funding sources to the current ratepayer funding of LIAP to achieve the 4% affordability target for electricity.
2. Allow the electric cooperatives to keep unclaimed capital credit refunds to be used for local low-income ratepayer assistance, rather than sending them to the Maine Treasury as abandoned property.
3. Switch the use of expiring net energy billing credits from the AMP program to additional funding for LIAP.
4. Increase taxpayer funding by dedicating the state sales tax on electricity to LIAP funding.

At the urging of ERAC and the OPA, multiple recommendations to increase LIAP funding have been debated over the past two years. Significantly, on July 11, 2023, Governor Mills signed [Public Law 2023, Ch. 412 \(L.D. 258\)](#) which provides one-time funding of \$15 million for LIAP: \$7.5 million in Fiscal Year 2023-2024 and another \$7.5 million in Fiscal Year 2024-2025. In 2023, the LIAP budget was set at \$22.5M (PUC Docket 2023-00056). Early in 2024, the OPA petitioned the PUC to raise the LIAP budget to \$30M for Program Year 2024-25 (PUC Docket 2024-00044) by allocating an additional \$7.5M of ratepayer funding. The PUC declined to act on this petition. Instead, the PUC maintained LIAP funding at \$22.5M for Program Year 2024-25 (PUC Docket 2024-00058).

With the support of the OPA and ERAC, other recommendations were passed by the 131st Legislature. LD 1013, “An Act to Address Abandoned Capital Credits Held by Rural Electrification Cooperatives,” was signed by Governor Mills (Enacted Public Law 2023, chapter 483) (abandoned ratepayer contributions are retained by the two electric cooperatives serving in Maine instead of being transferred to the General fund as abandoned property). Additionally, LD 509, “An Act to Amend the Net Energy Billing Laws to Direct Expiring Net Energy Billing Credits to Provide Low-Income Assistance,” was also signed by Governor Mills (Enacted Public Law 2023, chapter 230) (directs expired NEB bill credits to be used to fund LIAP, instead of AMP program). These laws are expected to result in approximately \$1-2M of new funding for LIAP over the next few years.

Significantly, LD 2143, “An Act to Dedicate the Revenue from the Sales Tax on Electricity to Low-income Ratepayer Assistance” was introduced in the second session of the 131st Legislature, with ERAC support. The sales tax on residential electricity generates approximately \$15M that currently goes to Maine’s General Fund. This initiative would have dedicated the proceeds of that tax to LIAP; however, it failed to pass. The [OPA’s testimony](#)

in support of LD 2143 detailed the affordability gap in Maine and the need for additional sources of revenue beyond the \$22.5M currently allocated to LIAP. This affordability gap remains a significant ERAC concern, as LIAP's budget will revert to \$15M annually for 2025-26 unless additional sources of funding are identified.

Previous ERAC Recommendations for Improving LIAP Operations

1. Convert LIAP benefits to a uniform monthly percentage discount applied to current bills, rather than two lump sum bill credits per year. Set these LIAP discount percentages for each of the four FPL tiers to achieve an average 4% affordability target in each tier, thereby providing higher benefits for lower income ratepayers.
2. Implement an annual true-up, or rate adjustment, with each utility to ensure that they are fully reimbursed for all LIAP benefits and program costs, to be sure that each LIAP participant receives the maximum calculated benefit, regardless of initial discount estimates.
3. Until LIAP is converted to a uniform discount program, reconsider the LIAP benefits amount when the standard offer rate changes on January 1st during each program year.
4. Strengthen encouragement of LIAP participants with significant arrearages to join the Arrearage Management Program (AMP).
5. Make reasonable accommodation in the implementation of these recommendations for the consumer-owned utilities (COUs) that have limited resources and for IOUs whose billing systems may take time to implement.

As part of PUC proceeding (Docket No. 2023-00056) to set the LIAP program funding amount for Program Year (PY) 2023-24, the Office of the Public Advocate proposed the first three recommendations, along with the recommendation to increase LIAP funding to \$25 million, citing the ERAC 12/1/22 Annual Report. These proposals were not adopted in the PUC's Final Order (Order, March 30, 2023). In 2024, the OPA again advocated unsuccessfully for increased funding, as indicated in the PUC's Final Order for Program Year 2024-25 (Docket No. 2024-00058, Order, April 3, 2024).

Previous ERAC Recommendations for Improving LIAP Enrollment

1. Increase Department of Health and Human Services (DHHS) expedited LIAP enrollment program to include DHHS client households with annual incomes equal to or less than 150% of FPL (depending on household size, income from approximately \$23,000 to \$47,000).
2. Make LIAP enrollment automatic for DHHS clients with qualifying household incomes with an opt-out provision.

In September of 2023 and again in 2024, DHHS sent approximately 70,000 letters to notify low-income electricity customers that they were eligible for LIAP benefits because of their household income and participation in a DHHS means-tested program (such as SNAP, TANF, or WIC). The letters included easy enrollment instructions and were supported by a joint press release to publicize the program benefits and announce the mailing. These letters likely contributed to an uptick in LIAP participation over 2022 levels. Central Maine Power (CMP) reported that in program year (PY) 2022-23, the Company processed approximately 2,600 LIAP applications through the DHHS letter process, whereas in PY 2023-24 the Company processed approximately 9,000 LIAP applications via DHHS customer letters.⁶ Through October 2024, CMP received and is processing nearly 15,000 LIAP applications via DHHS customer letters.

Automatic enrollment is the ideal, and in July of 2023, with the support of the OPA, Governor Janet Mills signed Public Law 2023, Ch. 412 (L.D. 258) directing DHHS to develop a program whereby DHHS can provide income qualification information directly to utilities for the purpose of automatically enrolling qualified ratepayers in LIAP. The OPA continues to work closely with DHHS on an ongoing working group implementing this directive. The Council recognizes that some of these recommendations, if adopted, will require substantial additional funding. Specifically, if DHHS automatic enrollment is adopted, the number of ratepayers participating in LIAP will increase dramatically above today's count of approximately 50,000 ratepayers. Adding tens of thousands of new beneficiaries to the LIAP program will create difficult choices between increasing the funding or lowering individual benefits or both.

3.1.2 Arrearage Management Program (AMP)

The AMP is authorized in [Title 35-A §3214](#) and is designed to help eligible ratepayers catch up if they fall behind in their payments (customers who can “keep up, but can’t catch up”). AMP creates a means to forgive portions of the customer’s unpaid balance based on full and on-time payment of the current amount due in their monthly electric bill. Details of the

⁶ C, Establishment of Assessment and Apportionment) Comments on Recommended Amounts for Low-Income Assistance plan and) Decision Assessment Amounts for Oxygen Pump and) Ventilator Programs Pursuant to Chapter 314, No. 2024-00058, CMP Comments on Recommended Decision (Me. P.U.C. Mar. 26, 2024) at 1.

program are also in Section III of ERAC's [First Annual Report](#). Significant progress was made on ERAC's recommendations for AMP in 2024.

[Previous ERAC Recommendations for Improving AMP](#)

1. Provide for LIAP participants to automatically qualify for AMP.
2. Allow an AMP participant to miss two current payments before disqualification.
3. Allow AMP eligibility once every seven years, rather than just once in a lifetime.
4. Repeal the 2024 sunset of AMP.

In response to ERAC's recommendation, the PUC adopted the first three of these changes in its proceeding to amend Chapter 317 of its Rules (Docket No. 2023-00134, [Order December 5, 2023](#)).

In addition, the Legislature passed LD 2067, "An Act to Make Permanent the Arrearage Management Program for Low-income Residential Customers" (Rep. Foster, Dexter). Governor Mills signed it into law on March 14, 2024 (Enacted Public Law 2023, Chapter 534.). This law extends the program until September 2028, at which point it will need to be renewed.

3.1.3 Other Recommendations

1. Ensure all electric assistance participants have a clear understanding of the energy efficiency programs available to them.
2. Consider implementing a consistent charge per kWh for all ratepayers across all utilities to fund LIAP.

The Council has met with members of Efficiency Maine Trust to better understand the status of energy efficiency programs for low-income ratepayers. The Council also met with Maine State Housing to learn about weatherization programs. Finding effective ways to help State agencies deliver energy efficiency programs to consumers remains a key area of interest for ERAC.

3.2 2024 Activities of the Electric Ratepayers Advisory Council

The Council is charged with meeting at least once per year, and each meeting is a public proceeding that allows for public comment. Meetings were held monthly in 2024 with the following agendas:

- January 17 – Discussion of goals for 2024.
- February 12 – Update on proposed legislation and Energy Burden Study.
- March 4 – Presentation by Efficiency Maine Trust on low- and middle-income-program reach.
- April 1 – Presentation by Maine State Housing Authority on weatherization and weatherization readiness programs.
- May 6 – Presentation on competitive electricity providers (Baldwin/Howington).
- June 3 – Presentation by VEIC – Energy Burden Study.
- August 5 – Research updates and discussion on initial results.
- September 9 – Initial Baldwin Group Findings and discussion of issues.
- October 7 – Presentations from Baldwin Group and VEIC of Study findings.
- November 4 - 2024 Recommendations and the Third Annual Report.
- November 18 – Final report revisions and suggestions.

Recordings of each 2024 meeting, along with presentations can be found on the OPA's website: <https://www.maine.gov/meopa/about/reports-and-testimony/council>

4.0 Reports and Recommendations

At its January meeting, the Council considered various new and continuing initiatives relevant to its mission and identified two focus areas: (1) the burden on low-income consumers resulting from the rising cost of energy; and (2) the financial impact on consumers caused by competitive electricity providers (CEPs) charging in excess of the Standard Offer price.

Vermont Energy Investment Corporation (VEIC) conducted the energy burden study. Their consulting expertise in energy efficiency, building decarbonization, transportation electrification, and demand management provide a comprehensive background to approach the energy burden analysis for Maine. VEIC currently administers three large-scale sustainable energy programs, providing insights into energy affordability. VEIC has conducted similar analyses for other New England states. For this project, they partnered with Beech Hill Research to obtain additional expertise in factors specific to Maine's low-income communities.

Due to their extensive background with the topic of CEP overcharging, Susan Baldwin and Timothy Howington conducted new research on competitive electricity providers. In February of 2023, a [Retail Electricity Supply](#) Report had been presented to the EUT in fulfillment of LD 318, "Resolve, To Direct the Office of the Public Advocate To Study Reforming Maine's System of Retail Electricity Supply to Provide More Options to Maine Customers and Support Maine's Climate Goals" ([P.L. 2021, Chapter 164](#)). Baldwin and Howington conducted the research and analysis of the CEP market for this earlier report, concluding that the anticipated benefits of the competitive electricity market for residential customers had not materialized over the prior 20 years since electric utility restructuring. The 2024 Report for ERAC builds on this previous work and updates the analysis.

The full text of the 2024 studies are in Appendix C and D of this report.

4.1 Quantifying Maine's Household Energy Burden and Affordability Gap

Energy affordability for low-income consumers is a pressing issue, and analysis of the energy burden for Maine ratepayers was last conducted in 2019. Energy burden is the spending on electricity and other fuels expressed as a percentage of household income. Of particular interest for ERAC are ratepayers whose household income is less than 150% of FPL – approximately \$23,000 to \$47,000 depending on household size. A 6% energy burden for total household energy use is the target for affordability set by researchers and advocates across the nation. For just electricity, the burden is set at 4% of household income. In

Maine, LIAP uses an average 4% affordability target for setting benefits in each of the four income tiers for low-income electric ratepayers.

Key findings of VEIC's study related to electricity are:

1. The home energy burden is 14% for Maine's low-income households – more than double the 6% accepted target. The aggregate home energy affordability gap statewide is estimated at \$363 million/year.
2. The energy affordability gap is growing; more than doubling between 2020 and 2022 and is expected to increase to \$400M/year over the next few years.
3. Using an electricity (as opposed to total home energy) affordability target of 4% of household income, the aggregate electricity affordability gap in Maine is \$85M/year. Stated another way, on average, low-income households pay approximately 8% of their household income just for electricity or double the 4% affordability target.

Study Recommendations

The Energy Burden Study generated many recommendations to inform policy discussions going forward.

1. Improve LIAP implementation to better meet the needs of recipients, including cooperation with Community Action Agencies to maximize the reach of the program.
2. Expand program income-eligibility to reach more households facing unaffordable energy burdens.
3. Improve consumer education on both the availability of energy efficiency programs and the causes of high electric bills.
4. Focus electrification efforts on households utilizing expensive home heating fuels.

These recommendations are detailed beginning on page 6 of the VEIC report in Appendix C.

4.2 Is Maine's CEP-Served Residential Retail Electric Supply Market Affordable?

Since the 2000 restructuring of Maine's electricity industry, consumers have had the choice of buying electricity from either the Standard Offer Provider (SOP) at a price set by the PUC or alternatively from a competitive electricity provider (CEP) at prices set by the CEP.⁷

In response to indications of substantial overcharging by CEPs, the OPA petitioned the PUC for access to CEP data to further study the impact of CEP pricing on low-income consumers (Docket No. 2024-00090). The PUC denied this request, stating that the OPA did not have statutory authority to request this information outside of a Commission investigation. On August 13, the OPA filed a Petition requesting that the Commission open its own investigation into potential over charging by competitive electricity providers in providing residential generation service in Maine (Docket No. 2024-00213). To date there has been no action by the PUC on the OPA's request.

Based on the results of previous studies, ERAC believes that the financial impact on consumers caused by competitive electricity providers (CEPs) charging more than the Standard Offer price is a key issue facing electric ratepayers. In analyzing Maine's residential retail electricity market, the [Baldwin-Howington 2024 study](#) finds that, in fact, consumers are being charged prices by CEPs that are far higher than the SOP price set by the PUC. There is no structural reason for this overcharging and there is evidence that the victims of this overcharging are often low-income consumers who are most vulnerable to unsubstantiated and unfulfilled promises to save consumers money.

Baldwin and Howington compared prices CEPs charge residential customers with prices those customers would have paid had they purchased standard offer service. Comparing residential CEP payments to the Standard Offer price during the eight years from 2016 to 2023, total overpayment exceeded \$135M, or approximately \$17M/year. Preliminary evidence suggests this staggering sum is not evenly distributed among ratepayers and is concentrated among low-income households, arguably those least able to absorb the additional cost. Specifically, low-income consumers are more likely to purchase electricity supply from a CEP, rather than the standard offer provider, and CEPs charge low-income households a higher price than they charge other customers.

⁷ The Legislature took action in the last session to strengthen consumer protections in the residential market by limiting the ability of CEPs to renew customer's contracts at a variable rate without consent if the existing contract was a fixed rate ([Public Law 2023, Chapter 636 \(LD 2163\)](#)).

Key findings of the Baldwin-Howington study are:

1. Public data shows that in 2023, 77 percent of residential CEP customers paid more for electricity supply than if they had purchased standard offer service.
2. Since 2016, CEPs have charged Maine's households \$135 million more for electricity than standard offer rates.
3. CEP claims of "green" products may be misleading. Households can contribute more efficiently to Maine's climate goals with other purchasing decisions.
4. High CEP prices make CEP electricity supply unaffordable for participating low-income households.
5. Preliminary data indicates that:
 - a. Low-income consumers participating in LIAP are 50% more likely than non-LIAP consumers to purchase their electricity supply from a CEP, rather than from the Standard Offer Provider.
 - b. CEPs charge LIAP consumers a higher price than they charge non-LIAP consumers.

Study Recommendations

The scope of the Baldwin-Howington report does not include specific policy recommendations for addressing the overcharging. A more detailed assessment of the impact of CEPs on low-income ratepayers would require data not publicly available. Specifically, two types of data would be required:

1. Data showing the overcharging of customers receiving LIAP assistance.
2. Data showing the overcharging in communities with significant concentrations of low-income households.

The Baldwin-Howington report recommends the OPA be given access to this data so that this assessment can be completed.

Appendix A: State of Maine Public Law 2021, Chapter 623 (LD 1913)

STATE OF MAINE

—
IN THE YEAR OF OUR LORD

TWO THOUSAND TWENTY-TWO
—

S.P. 674 - L.D. 1913

An Act To Create the Electric Ratepayer Advisory Council

Emergency preamble. Whereas, acts and resolves of the Legislature do not become effective until 90 days after adjournment unless enacted as emergencies; and

Whereas, the affordability of electricity in the State is a major issue facing many ratepayers; and

Whereas, stakeholders need to begin immediately to evaluate measures to make electricity more affordable and advise the Public Advocate on these potential measures; and

Whereas, in the judgment of the Legislature, these facts create an emergency within the meaning of the Constitution of Maine and require the following legislation as immediately necessary for the preservation of the public peace, health and safety; now, therefore,

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 5 MRSA §12004-I, sub-§93 is enacted to read:

93.

Public
Advocate
§1714

Electric Ratepayer Advisory Council

Not Authorized

35-A
MRSA

Sec. 2. 35-A MRSA §1714 is enacted to read:

§1714. Electric Ratepayer Advisory Council

1. Appointment; composition. The Electric Ratepayer Advisory Council, referred to in this section as "the council" and established by Title 5, section 12004-I, subsection 93, consists of 18 members as follows:

A. Thirteen voting members appointed by the Public Advocate including:

- (1) One member representing the interests of senior citizens and the aging population of the State;
- (2) One member representing an equal justice advocacy organization operating in the State;
- (3) One member representing an association of community action agencies as defined in Title 22, section 5321, subsection 2;
- (4) One member representing a statewide organization that advocates for affordable housing;
- (5) One member from each investor-owned transmission and distribution utility in the State;
- (6) One member representing a consumer-owned transmission and distribution utility in the State;
- (7) One member representing a large industrial employer based in the State;
- (8) One member representing a research organization dedicated to improving the economic outlook of the State and its residents;
- (9) One member who is a member of a federally recognized Indian nation, tribe or band in the State based on the joint recommendation of the tribal governments of the Aroostook Band of Micmacs, the Houlton Band of Maliseet Indians, the Passamaquoddy Tribe at Motahkomikuk, the Passamaquoddy Tribe at Sipayik and the Penobscot Nation. If these tribal governments do not make a unanimous joint recommendation, the Public Advocate shall appoint a member of a federally recognized Indian nation, tribe or band in the State and rotate the appointment among members of each federally recognized Indian nation, tribe or band in the State;
- (10) Two public members, one of whom is a customer of an investor-owned transmission and distribution utility serving the northern portion of the State and one of whom is a customer of an investor-owned transmission and distributed utility serving the southern portion of the State; and
- (11) One public member who is a small business owner; and

B. Five ex officio, nonvoting members including:

- (1) The Public Advocate or the Public Advocate's designee;
- (2) The Director of the Governor's Energy Office or the director's designee;
- (3) The chair of the commission or the chair's designee;

- (4) The Director of the Efficiency Maine Trust or the director's designee; and
- (5) The director of the Maine State Housing Authority or the director's designee.

2. Duties. The council shall make recommendations to the Public Advocate regarding methods to ensure that ratepayers are able to afford electricity in the State. In developing recommendations, the council shall:

- A. Review the electric rates and rate design in effect when the council is developing its recommendations, projected changes in those rates and the policy goals and other factors contributing to projected changes in those rates;
- B. Review electric assistance programs in existence when the council is developing its recommendations, including those programs implemented pursuant to section 3214, and consider more streamlined and cost-effective options to provide assistance to all ratepayers that may be struggling to pay their electric utility bills, including an electric utility relief program that provides assistance to individuals receiving benefits under a state or federal low-income assistance program or whose family income is equal to or below 200% of the federal nonfarm income official poverty line;
- C. Identify methods to:
 - (1) Fund electric assistance programs that do not result in shifting costs to ratepayers;
 - (2) Improve education and outreach efforts regarding electric assistance programs, the retail electricity supply market and energy efficiency programs; and
 - (3) Make energy efficiency programs more accessible to low-income, moderate income and small business ratepayers, including those ratepayers that rent housing accommodations or commercial spaces; and
- D. Identify any other methods that may improve the affordability of electricity.

3. Terms. The term of a member appointed to the council is 3 years, except that a vacancy during an unexpired term must be filled in the same manner as for the original member for the unexpired portion of the member's term.

4. Meetings. The council shall meet at least once a year.

5. Chair. The Public Advocate shall appoint a chair.

6. Public participation. Meetings of the council are public proceedings and may allow for public comment.

7. Staff assistance. The Public Advocate and the commission shall provide necessary administrative staffing services to the council.

8. Reports. By December 1st of each year, the Public Advocate shall submit a report to the joint standing committee of the Legislature having jurisdiction over utilities and energy matters on the activities of the council and any recommendations the council made to the Public Advocate pursuant to subsection 2. The committee

may report out a bill to the Legislature relating to the recommendation of the council.

Sec. 3. Electric Ratepayer Advisory Council; appointments; meetings. The Public Advocate shall make initial appointments to the Electric Ratepayer Advisory Council pursuant to the Maine Revised Statutes, Title 35-A, section 1714, subsection 1 no later than 60 days after the effective date of this Act. Notwithstanding Title 35-A, section 1714, subsection 4, during the 2022 calendar year the Electric Ratepayer Advisory Council shall hold its first meeting no later than July 1, 2022 and shall hold at least 5 meetings in total during that calendar year.

Sec. 4. Appropriations and allocations. The following appropriations and allocations are made.

EXECUTIVE DEPARTMENT

Public Advocate 0410

Initiative: Provides a one-time allocation for the cost of contracted services to develop a report on the activities and recommendations of the Electric Ratepayer Advisory Council.

OTHER SPECIAL REVENUE FUNDS	2021-22	2022-23
All Other	\$0	\$100,000
OTHER SPECIAL REVENUE FUNDS TOTAL	\$0	\$100,000

Emergency clause. In view of the emergency cited in the preamble, this legislation takes effect when approved.

Appendix B: 2024 ERAC Membership

Electric Ratepayer Advisory Council Membership

Seat as Described in Statute	Council Member	Organization	Title
Ex Officio:			
Public Advocate/OPA Designee	Bill Harwood	OPA	Public Advocate
Director of Governor's Energy Office	Dan Burgess	GEO	Director
Public Utility Commission Chair/PUC Designee	Phil Bartlett	PUC	Chairman
Director of Efficiency Maine Trust/EMT Designee	Ian Burnes	EMT	Director of Strategic Initiatives
Director of Maine State Housing Authority Designee	Erik Jorgensen	MaineHousing	Sr. Director of Government Relations & Communications
Voting Members:			
Senior Citizens/Aging Population	Jess Maurer	Maine Council on Aging	Executive Director
Equal Justice Advocacy Org	Ann Danforth	Maine Equal Justice	Policy Advocate
Community Action Agency	Claire Berkowitz	Midcoast Maine Community Action	President/CEO
Statewide Affordable Housing Advocate	Amy Racine	Saco Falls Management	Director of Property Management
Central Maine Power	Linda Ball	CMP	Vice President, Customer Service
Versant	Lisa Heneghan	Versant	Director of Strategy & Business Transformation
Consumer Owned Utility Representative	Amy Watson	Fox Island Electric Cooperative	CEO
Large Industrial Employer	Shawn Lovley	Pineland Farms Potato Co.	Plant Manager

Research Organization (Economic)	Sharon Klein	University of Maine	Associate Professor
Central Maine Power Customer	Tina Riley	Citizen	Former Legislator
Versant Customer	John Fitzpatrick	Jackson Laboratory	Senior Director of Facilities
Small Business Owner	Kim Brackett	Brackett's Market (Bath)	Owner
Federally Recognized Tribal Representative	Reese Chavaree	Penobscot Nation	Community Services Coordinator
Staff:			
Office of the Public Advocate	Elizabeth Deprey	OPA	Consumer Advisor
Office of the Public Advocate	Sylvia Most	OPA	Senior Assistant to Public Advocate
Public Utilities Commission	Deirdre Schneider	PUC	Legislative Liaison

Appendix C. Quantifying Maine's Household Energy Burden and Affordability Gap

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BEECH HILL
RESEARCH

Quantifying Maine's Household Energy Burden and Affordability Gap

**A report to the Maine Electric Ratepayer
Advisory Council**

By VEIC & Beech Hill Research

December 1, 2024

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Acknowledgements

The ERAC Members worked collaboratively with VEIC and Beech Hill Research to develop this report, providing guidance, data, and review. We conducted interviews with: the Governor's Energy Office, the Office of the Public Advocate, Efficiency Maine, the Public Utilities Commission, MaineHousing, Versant Power, Central Maine Power, the Council on Aging, Maine Equal Justice, and the Maine Community Action Partnership. In addition, Efficiency Maine provided program data and Versant Power and Central Maine Power provided residential usage data and income-eligible program data.

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Executive Summary

Households across Maine and New England have faced record inflation in recent years and energy affordability has become a pressing issue within Maine and across the region. In 2024, the Office of the Public Advocate and the Electric Ratepayer Advisory Council commissioned VEIC, and subcontractor Beech Hill Research, to provide a comprehensive study of energy burden and affordability in the state. This study characterizes energy burden across Maine’s sixteen counties and reviews existing assistance programs.

The study focuses on low-income households: those earning less than 60% of area median income by county and 60% of state median income statewide. Our analysis includes total energy costs that households face: electricity, household fuels (fuel oil, natural gas, propane, kerosene, wood), and transportation energy (gasoline).

Affordability Metrics

For each spending category, we report on two key metrics:

- **Burden:** spending expressed as a percentage of household income.
- **Affordability gap:** any spending in excess of an affordable level of burden. Each spending category included in the analysis has an associated affordability threshold or target. The affordability gap is the difference between actual spending and an affordable level of spending.

Spending category	Affordability Threshold (% household income)
Electricity	4%
Home Energy (electricity and household fuels)	6%
Transportation Energy (vehicle fuel costs)	4.2%

These metrics help us understand where and what types of households are struggling with energy costs, and the level of assistance needed to bring these costs down to an affordable level. Affordability gap can be reported per household to show the challenge faced by individual families and summed across counties and statewide as an aggregate affordability gap to inform broader policy and programmatic needs.

We used a combination of publicly available data and data from project partners to estimate burden and affordability gap statewide and by county. Our energy burden data reflects years 2018-2022, the most recent data available.

Findings

Total energy burden: Low-income households in Maine are facing total energy burdens: 30% of household income. This burden includes spending on electricity, household fuels, and transportation energy, and is triple the total energy burden faced by all Maine households.

Home energy burden (energy burden *excluding* transportation energy) is 14% for Maine's low-income households. Over 200,000 households are facing unaffordable home energy burdens. We estimate that the aggregate home energy affordability gap statewide is \$363 million.

Even moderate-income households are struggling with unaffordable home energy burdens: households earning 60% to 80% of state median income are facing annual home energy affordability gaps of nearly \$700.

Burdens are highest among households relying on unregulated fuel sources (fuel oil, including kerosene, and propane), most likely due in part to housing type. These fuels are most common among single family homes and mobile and manufactured housing. These fuels also experience more price volatility than electricity and natural gas rates.

Maine's aggregate home energy affordability gap is growing: it more than doubled between 2020 and 2022, and we expect that it will increase further in 2024 to over \$400 million.

Electricity burden: Low-income households are also facing high electricity burdens, as part of their home energy costs. We estimate an electricity burden of 8% across Maine's low-income households, double the 4% target. However, these estimates may not fully capture assistance that households are receiving.

Transportation energy burden: Low-income households are facing transportation energy burdens of 16% and annual affordability gaps of over \$1,800.

Looking ahead

Participation in low-income energy assistance and efficiency programs is increasing. A number of key improvements have to been made to program outreach and design, increasing awareness of programs and program impact. In 2025, new programs, Solar For All and Home Energy Rebates, present an enormous opportunity to reduce energy burdens and close the affordability gap for Maine's low and moderate income households.

Recommendations

Based on our conversations with ERAC members, stakeholders, and the results of our analysis we make the following recommendations to make energy burdens more affordable for Maine households:

1. Expand program eligibility to include moderate income households.

Households earning above current income guidelines (whether 150% FPL, 200% FPL, or 60% SMI) are facing unaffordable energy burdens. An income threshold of 80% AMI would capture these households in need of assistance (and be consistent with new Efficiency Maine programs, such as the Manufactured and Mobile Home Initiative, which uses an income eligibility threshold of 80% AMI).

2. Implement automatic enrollment in the Low-Income Assistance Program (LIAP).

Automatic enrollment for all eligible households through the Department of Health and Human Services (DHHS) will increase participation levels and reduce barriers to assistance for households in need. Autoenrollment is expected to *substantially* increase participation: this change should be planned for and be implemented with an increased program budget. Longer-term, efficiency and weatherization programs can lower bills over the life of the home, ultimately reducing the need for LIAP.

3. Do not increase the 4% electricity burden affordability threshold.

As electrification of homes and transportation shifts energy costs away from fossil fuels and towards electricity, we expect electricity burden will ultimately increase as other fuel burdens decrease. However, adoption of heat pumps and EVs within low-income households is not yet widespread enough to justify an adjustment to this threshold. If anything, given the high overall home energy burden that low-income Maine households are facing, the 4% threshold may be too high.

4. Align efficiency and decarbonization programs with housing programs that improve building condition.

Stakeholders noted that many Maine homes owned by low-income people will not qualify for efficiency upgrades, weatherization, or solar deployment without substantial structural repairs. Increased funding is needed for significant building improvements to ensure that low-income households can access long-term relief from high energy burdens.

5. Households that rely on unregulated fuels, including kerosene, propane, and fuel oil as their primary heating fuel should be a key focus of electrification efforts.

Heating oil, and kerosene in particular, have experienced historic price volatility in recent years, leaving households reliant on these fuels vulnerable to sudden price spikes. Kerosene is vulnerable to both supply challenges and price spikes. Propane is the most expensive primary heating fuel on a dollar per MMBTU basis. Our study (and the Efficiency Maine home heating calculator and the 2019 energy burden report) found that households using propane as their primary heating fuel are among those facing the highest energy burdens in the state.

6. Consider changes to LIAP program design to allow release of unused funds.

In some utility territories, LIAP benefits are released as a lump sum, meaning that LIAP recipients carry a credit on their account. An alternative program design, such as a discounted rate or monthly discount amount applied to LIAP accounts, would release these unused funds.

7. Continue to educate Mainers on the cost of using space heaters and resources such as weatherization, heating system repair and replacement programs.

Stakeholders noted that many Mainers are not aware of the dangers of space heaters, nor their impact on electric bills. Weatherization and heating system repair and replacement programs are essential to improving the efficiency of building stock long-term.

8. More utility engagement and coordination with Community Action Agencies.

CAAs are a central connection point between low-income customers and utilities. CAAs can be involved in assistance program design and requested more frequent communication and coordination with utilities, such as regular quarterly meetings.

9. Consider cooling when determining minimum energy needs.

Increased need for cooling should be considered in discussions of energy affordability. LIHEAP funds can be used to cover cooling, although the overall LIHEAP budget has not increased.

10. Continue to monitor energy burdens of renters and provide programming to improve the efficiency of rental housing.

Although we found that low-income renters face smaller energy burdens than low-income homeowners, we know that renters have less ability to reduce their burden through efficiency upgrades.

Progress as of 2024

We also echo the recommendations from the 2019 Energy Burden Study, which remain relevant to Maine today, and note that significant progress has already been made acting on these recommendations. The previous study recommended:

"Policies to address energy burden are needed and should seek to:

- help those with high burdens manage energy costs;*
- promote customer equity and affordability;*
- reduce ratepayer costs associated with utility bad debt and collection efforts on unpaid bills;*
- lower the environmental impacts of energy use."*

Recent progress on these recommendations:

- Coordination between DHHS and electric utilities has increased awareness of and enrollment in LIAP.
- The Arrearage Management Program has been implemented, providing a clear path out of debt for many households.
- Efficiency Maine continues to expand nationally-recognized heat pump offerings for low- and moderate-income households and, together with MSHA programs, Maine has achieved a heat pump adoption rate of 13% among low-income homeowners, reducing low-income households' reliance on fossil fuels.

Introduction

Study Background and Scope

Households across Maine and New England have faced record inflation in recent years and energy affordability has become a pressing issue in the state. In 2024, OPA and the ERAC commissioned VEIC and Beech Hill Research to provide a comprehensive study of energy burden and affordability. This study characterizes energy burden across Maine's sixteen counties and reviews existing assistance programs.

Our analysis includes total home energy including electricity and other fuels (natural gas, propane, kerosene, fuel oil, and wood), as well as transportation energy. This approach allows us to present a comprehensive picture of the energy cost burden faced by Maine's residents. The focus of this study is on energy burden of low-income households. Statewide, we define low-income as households earning 60% or less of the statewide median income (SMI). By county, we define low-income as households at or below 60% of area median income (AMI).



Energy burden = spending on home energy expressed as a percentage of household income

In New England, home energy burden is highest in Maine and Vermont, where it is between 14-15% for low-income households (Figure 1).¹ Historically, energy prices in Maine have been higher than the national average, though Maine typically has some of the lowest energy costs in New England. In 2024, prices for electricity were more than 50% higher than the national average and natural gas prices in Maine were 20% higher.²

¹ US DOE LEAD Tool: <https://www.energy.gov/scep/slsc/lead-tool>

² EIA: <https://www.eia.gov/state/?sid=ME#tabs-5>

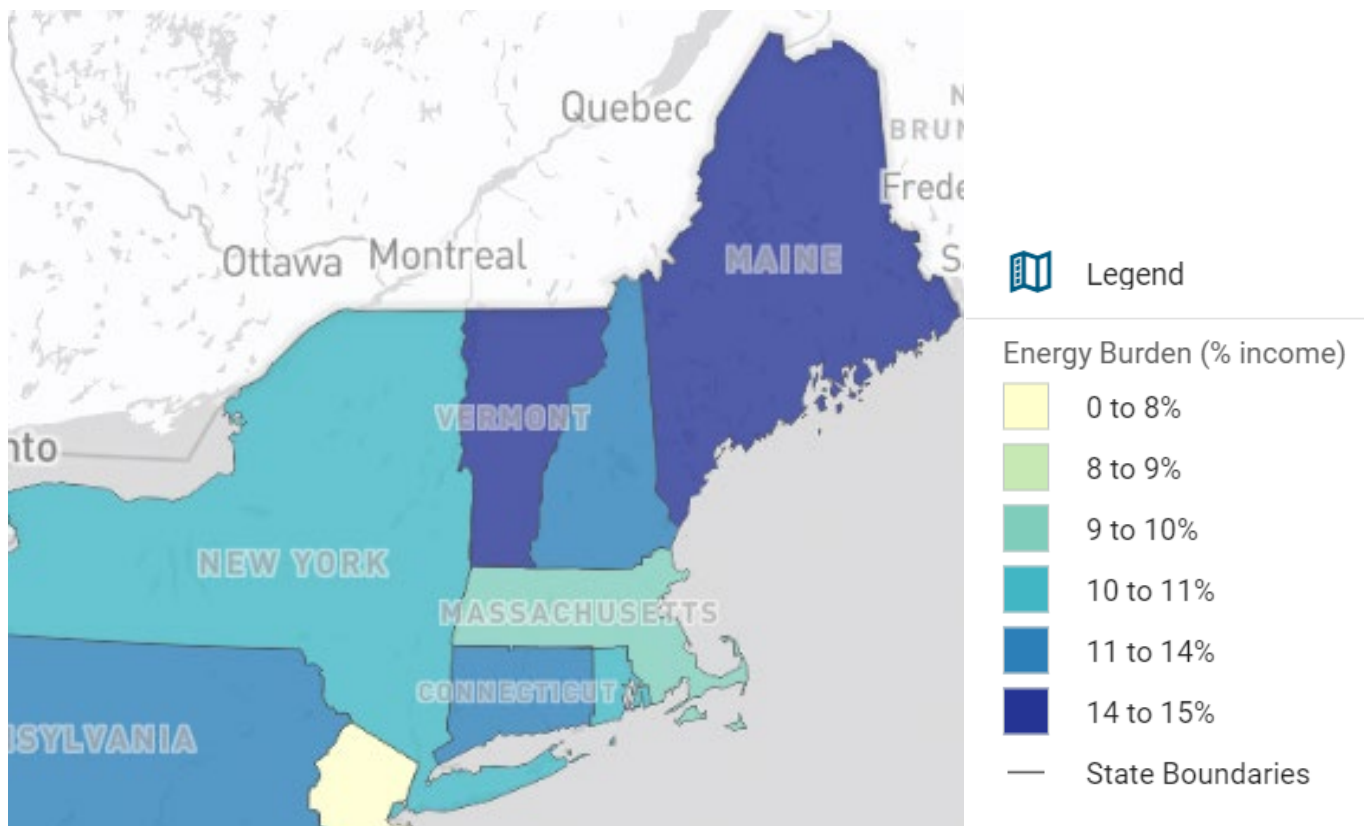


Figure 1. Regional home energy burden for low-income households.

Energy Burden & Affordability Thresholds

Home Energy Affordability Thresholds

It is common for energy assistance programs and energy affordability research to use a 6% energy burden threshold for affordability. According to this threshold, a household's home energy costs should not exceed 6% of their annual household income.³ This threshold includes spending on electricity and other household fuels (both regulated and non-regulated). The 6% threshold does not include transportation energy. The 6% threshold is a commonly cited affordable energy burden by national and regional energy efficiency advocates such as the American Council for an Energy Efficient Economy (ACEEE), Rocky

The 6% Energy Burden Affordability Threshold

$$\begin{array}{ccccc}
 \mathbf{30\%} & & \mathbf{x} & & \mathbf{20\%} & & \mathbf{=} & & \mathbf{6\%} \\
 \text{shelter as} & & & & \text{energy as} & & & & \text{energy as} \\
 \text{\% of} & & & & \text{\% of} & & & & \text{\% of} \\
 \text{income} & & & & \text{shelter} & & & & \text{income}
 \end{array}$$

³ Understanding Energy Affordability: <https://www.aceee.org/sites/default/files/energy-affordability.pdf>.

Mountain Institute (RMI)⁴ and Northeast Energy Efficiency Partnerships (NEEP)⁵. This threshold is also often used as a target for state policies, for instance, in New York,⁶ and Connecticut.⁷

A 6% energy burden affordability threshold is based on Fisher, Sheehan and Colton's Home Energy Affordability Gap analysis and grounded in the idea that household energy costs should not exceed 20% of total shelter costs.⁸ Affordable shelter costs are generally capped at 30% and include rent or mortgage, utilities (e.g., electricity, water, sewer), delivered fuel, insurance, taxes, and association fees.⁹ Fisher, Sheeran, and Colton state: "*This burden takes into account the total cost of shelter and the proportion of total shelter cost devoted specifically to energy.*"¹⁰ In Fisher, Sheeran, and Colton's methods, the affordability threshold is inclusive of all home energy fuels, both regulated (natural gas and electricity) and bulk fuels such as propane and fuel oil.

The ERAC 2023 Annual Report includes an overview of affordability thresholds by state, and notes that some states use a higher threshold for electricity costs for homes that heat with electricity.¹¹ New Jersey uses a 2% electricity burden threshold for homes that do not heat with electricity and 4% for those that do. Ohio uses a 5% electricity threshold for homes that do not heat with electricity and 10% for those that do. The report cites a program in California that targets an overall energy burden, including both electricity and natural gas, of 8%. The Maine Low Income Assistance Program (LIAP) uses a 4% affordability threshold for electricity. Maine does not have a designated affordability threshold for other fuels.

Transportation Energy Affordability Thresholds

For transportation energy affordability, the National Renewable Energy Lab (NREL) uses a burden threshold of 4.2%.^{12,13} According to a 2021 study by Argonne National Lab, nationally, the average household transportation energy burden is 3.3% and slightly higher in Maine:

⁴ <https://rmi.org/1-in-7-families-live-in-energy-poverty-states-can-ease-that-burden/>

⁵ Addressing Energy Burden in the Northeast: <https://neep.org/blog/addressing-energy-burden-northeast>.

⁶ In 2016, New York State established an Energy Affordability Policy that set the goal of limiting energy costs for low-income utility customers to an average of no more than 6 percent of income. See: <https://www.nyserda.ny.gov//media/Files/Publications/PPSER/ProgramEvaluation/2017ContractorReports/LMI-Special-Topic-Rpt---Energy-Burden.pdf>.

⁷ The goal of Connecticut's low-income discount residential electric rate is to limit household energy costs to 6% of household income: <https://portal.ct.gov/-/media/PURA/electric/FAQs-Docket-No-17-12-03RE11.pdf>

⁸ Home Energy Affordability Gap: <http://www.homeenergyaffordabilitygap.com/>.

⁹ See: <https://cdn2.hubspot.net/hubfs/4408380/PDF/General-Housing-Homelessness/who-can-afford.pdf> and <https://www.huduser.gov/portal/pdredge/pdr-edge-featd-article-081417.html>

¹⁰ http://www.homeenergyaffordabilitygap.com/01_whatIsHEAG2.html.

¹¹ ERAC 2023 Annual Report: https://www.maine.gov/meopa/sites/maine.gov.meopa/files/inline-files/2023-12-01_ERAC%202nd%20Annual%20Rpt%20to%20EUT%20Committee%5B64%5D.pdf.

¹² See [NREL State and Local Planning for Energy \(SLOPE\) Tool](#).

¹³ ACEEE Combined Energy Burdens: https://www.aceee.org/sites/default/files/pdfs/combined_energy_burdens_-_estimating_total_home_and_transportation_energy_burdens.pdf.

3.6%.¹⁴ For transportation costs more broadly, the US Department of Housing and Urban Development uses a threshold of 15% for all household transportation spending, inclusive of all transportation costs (transit, vehicle ownership/lease, maintenance, and energy).¹⁵ Similarly, the Center for Neighborhood Technology (CNT) uses a 45% combined metric for housing and transportation affordability, which roughly equates to a 30% housing affordability threshold and 15% transportation affordability threshold. The combined threshold accounts for some densely settled cities and downtown areas that may have higher housing costs but lower transportation burdens.¹⁶

In a 2021 policy brief, ACEEE uses a combined energy burden affordability threshold of 12%, inclusive of all home energy costs and transportation energy costs.¹³ Transportation energy is generally about half of a household's overall energy burden and 12% represents a doubling of the 6% home energy burden affordability threshold.

Affordability Gap

An affordability gap emerges when spending exceeds the threshold:

Affordability gap = any spending in excess of the affordability threshold

In this report, we report average affordability gaps at the household level and in aggregate by county and statewide, for electricity, home heating fuels, and transportation. In Table 1, we present the affordability thresholds that we reference in the report and use in our analysis.

Table 1. Affordability thresholds by spending category.

Spending category	Description	Affordability Threshold	Source
Electricity	Household electricity costs	4%	LIAP ¹⁷
Home Energy	All home energy: electricity, wood, fossil fuels (natural gas, fuel oil, kerosene, propane)	6%	ACEEE ¹⁸
Transportation	Transportation fuel costs	4.2%	ACEEE ¹³
Combined energy burden	All home energy and transportation fuel costs	12%	ACEEE ¹³

¹⁴ Argonne National Laboratory, Affordability of Household Transportation Fuel Costs by Region and Socioeconomic Factors: <https://publications.anl.gov/anlpubs/2021/01/165141.pdf>.

¹⁵ HUD Location Affordability Index: <https://www.hudexchange.info/programs/location-affordability-index/>

¹⁶ Center for Neighborhood Technology Housing and Transportation Affordability Index: <https://cnt.org/tools/housing-and-transportation-affordability-index>.

¹⁷ Central Maine Power uses a 4% affordability threshold in determining LIAP benefits. See the [ERAC 2023 Annual Report](#).

¹⁸ Understanding Energy Affordability: <https://www.aceee.org/sites/default/files/energy-affordability.pdf>.

The Home Energy Affordability Gap (HEAG) Tool developed by Fisher, Sheehan and Colton provides estimates of statewide home energy affordability gap for each state. In 2022, they estimated an aggregate home energy affordability gap of \$587,813,317 in Maine across 156,000 households and declare “*The number of households facing unaffordable home energy burdens is staggering.*” They note that existing energy assistance may not adequately address the affordability gap: the 2022 LIHEAP allocation to Maine was \$35 million, which assisted 13,300 households.¹⁹

Electricity

As noted above, electricity prices in Maine are well above the national average and increased nearly 20% between 2020 and 2024. The primary assistance program available to help low-income households in Maine with their electricity bills is LIAP. LIAP implementation varies across utilities but generally tries to help households keep their electricity burden at or below 4%. Note that demand for LIAP has increased since 2020 and this limits the level of assistance that households receive. Other programs that exist for those struggling to pay their electric bills include the Arrearage Management Program (AMP), the Electricity Lifeline Program (ELP),²⁰ and Energy Crisis Intervention Program (ECIP). These programs are discussed in more detail later in this report in the section ‘**Assistance and Payment Management Programs**’. Additionally, utilities do not engage in any shut-offs between October and April, to prevent households from winter shut-offs (note that many households are aware of this policy and sometimes build up sizable debts in the winter months that come due in April).

As households electrify their heating and transportation activities, there is some consideration of whether the 4% threshold should be increased as other energy cost burdens will presumably go down. Electricity affordability thresholds vary across states, with most around 3%, and some states using higher thresholds (about double) for households that heat with electricity.

Household Fuels

Most households in Maine use fuel oil as their primary source of heat (60%).²¹ Other common heating fuels include propane (12%), natural gas (9%), wood (10%), and kerosene (2%).²² Delivered fuel prices are volatile. Prices fluctuate throughout the year and vary significantly by region and amount of fuel delivered. Delivered fuel prices spiked in 2022 and while they are coming down, remain higher than recent historic pricing. According to the LEAD Tool, approximately 80% of Maine households utilize an unregulated fuel for their primary heating source. Many homes also use these fuels for smaller loads (e.g. propane for cooking and/or hot

¹⁹ Fisher, Sheehan, and Colton: [Maine 2022 HEAG Fact Sheet.pdf](#).

²⁰ https://www.cmpco.com/documents/40117/46385018/ELP AMP Customer FactSheet_rev%2B3.3.23.pdf/f355a878-bd38-ce27-ccde-d8c3dd50b1a6?t=1678731820047.

²¹ DOE LEAD Tool: <https://www.energy.gov/scep/slsc/lead-tool>.

²² We do not have a direct estimate of households heating with kerosene. The Governor’s Energy Office estimates that kerosene represents 4% of all fuel oil purchases.

water) and supplemental heating (e.g. kerosene). Smaller overall delivery quantities typically mean higher prices. Dependence on kerosene is particularly high among residents of manufactured and mobile homes.²³ Kerosene is a fuel type that is increasingly expensive and difficult to find. As more households move away from kerosene, those who still rely on it are particularly vulnerable to fuel shortages and price spikes.

In addition, although a regulated fuel source, natural gas prices have also exhibited high price fluctuations, since 2014, peaking in 2022. It is important to note that while we have information on primary heating source, many households in Maine use a more than one heating sources over the course of the winter: reliance on multiple fuel sources within a single households is not captured in this study.

Transportation Energy

Transportation costs are generally estimated to be the second highest cost for most households, behind only housing. In 2022, nationally, average transportation expenditures were \$12,295 and average transportation burden was 14.8%. The lowest quintile spent the least and faced the largest transportation burden: 30%. Rural households have a transportation burden of 15.9%. Between 2021 and 2022, nationally, household transportation expenditures increased by over 12%.²⁴ Generally, research reports that lower income households drive slightly less but use older, less efficient vehicles. Analysis of the 2017 National Household Travel Survey, by the firm Streetlight, confirmed this finding, also finding that higher income households have significantly greater variation in both vehicle miles traveled and in vehicle efficiency, which varied from large, gas-powered trucks with low miles per gallon to all electric plug-in vehicles. Streetlights reports that in Colorado, lower income households traveled 1,000 to 1,500 miles less annually than higher income households.²⁵ In 2021, ACEEE reported a national transportation energy burden of 14% among low-income households (those earning less than 200% of FPL).²⁶

Despite the high transportation burden faced by many households, especially low-income households and those in rural areas, there are few assistance programs available. The Efficiency Maine Trust offers EV purchase incentives and recently launched an e-bike program focused on serving low-income Mainers. In this report, we will consider only transportation energy costs, not costs associated with vehicle ownership (purchase, insurance, maintenance) or public transit. Given current rates of EV penetration (less than 1% of the current light duty fleet in Maine),²⁷ we use gasoline prices to estimate transportation energy spending and burden.

²³ <https://www.maine.gov/governor/mills/news/governor-mills-us-department-energy-announce-10-million-federal-grant-support-energy>.

²⁴ US Department of Transportation Bureau of Transportation Statistics, Household Spending on Transportation: <https://data.bts.gov/stories/s/ida7-k95k>.

²⁵ See: <https://www.streetlightdata.com/miles-driven-tax-equity-ev-future/>.

²⁶ Understanding Transportation Energy Burdens: https://www.aceee.org/sites/default/files/pdfs/transportation_energy_burdens_final_5-13-21.pdf.

²⁷ US DOE Alternative Fuel Data Center: <https://afdc.energy.gov/vehicle-registration>.

Defining Low-Income

Energy burden is a function of energy prices and household income. According to the American Community Survey, household income in Maine increased 15% between 2020 and 2022. Inflation also peaked in 2022. A variety of income thresholds and definitions of low-income exist (Table 2). In this report we define low income as 60% of State Median Income (SMI). When reporting on county-level data, we use Area Median Income (AMI), a metric that reflects economic conditions specific to each county.

Table 2. 2023 Income thresholds by Federal Poverty Level and Statewide Median Income.

	Household size			
	1 person	2 people	3 people	4 people
150% Federal Poverty Line	\$22,590	\$30,660	\$38,730	\$46,800
200% Federal Poverty Line	\$30,120	\$40,880	\$51,640	\$62,400
60% State Median Income	\$32,672	\$42,725	\$52,778	\$62,831

The 2019 Energy Burden Study

Our research builds on an earlier study of energy burden, completed in 2019.²⁸ That study reported an average home energy burden (electricity and other fuels, *not* transportation) of 19% among Maine’s low-income households and defined low-income as households those earning less than 150% of FPL. The current study includes transportation in its scope and uses SMI and AMI to define low-income, thresholds closer to 200% of FPL. We expanded our definition of low-income in response to concern among ERAC members (which was validated in our analysis) about more moderate- income households also facing high energy burdens. In addition, eligibility for the Home Energy Assistance Program (HEAP) aligns with SMI: in order to qualify for HEAP, a household must either earn less than 150% FPL or 60% SMI, whichever is greater.

Methods

To estimate Maine households’ energy spending and burden, we used a combination of publicly available data and data provided by project partners. For each of the spending categories- home energy (including electricity and other fuels) and transportation- we estimate energy spending and energy burden for low- income households statewide and for each county. We also present a combined estimate of total energy spending and burden for low-income households by county and statewide.

²⁸ Maine Low-Income Home Energy Study: <https://www.maine.gov/meopa/sites/maine.gov.meopa/files/inline-files/Maine%20Low%20Income%20Energy%20Burden%20Study%20June%202019.pdf>.

Where possible, we estimate the home energy affordability gap (spending in excess of the 6% affordability threshold) by household, and in aggregate, by county and state. Estimating these gaps helps us understand the level of assistance needed by individual households to bring energy spending down to an affordable level, and the scale of funding needed more broadly.

Data

Home energy

Our analysis uses data from the U.S. DOE Low Income Energy Affordability Data (LEAD) Tool²⁹ and the Residential Energy Consumption Survey (RECS).³⁰ The LEAD Tool provides county and statewide level estimates of energy spending for a variety of demographic and household characteristics, including household income, tenure (renter vs. owner) and primary heating fuel. We used the LEAD Tool for county and statewide estimates of spending on electricity and other fuels. The most recent version of the LEAD Tool incorporates data from the 2022 U.S. Census Bureau's American Community Survey (ACS) which reports five-year average data for the period 2018-2022, calibrated to 2022 U.S. Energy Information Agency (EIA) survey data. The Residential Energy Consumption Survey (RECS) provides state and regional estimates of energy usage and spending. The most recent version of the RECS was conducted in 2020.

Our analysis also incorporates data from partners. Both Central Maine Power and Versant Power provided estimates of residential electricity usage by month for all residential accounts and those receiving assistance through LIAP, HEAP, AMP, and ELP.

We calculated household and aggregate home energy affordability gaps for 2022 from LEAD data and projected the gap for 2024 using fuel-specific inflation factors and a 6% affordability threshold. We adjusted household income in accordance with the shift in LIHEAP income-eligibility (increase of 15%, 2022-2024).

Transportation Energy

To estimate transportation energy spending and burden, we used an average vehicle efficiency for Maine of 20.1 mpg as reported by the Department of Energy Vehicle Technology Office,³¹ and an average cost for gasoline of \$2.91 (average of years 2018-2022, as reported for the New England Region by the Energy Information Administration).³² We used county-levels estimates of vehicle miles traveled (VMT) available through the State and Local Planning for Energy (SLOPE) Tool for years 2018-2022. The SLOPE tool was developed by the National Renewable Energy Laboratory (NREL) and projects energy use by sector. Unlike the LEAD Tool, the SLOPE

²⁹ <https://www.energy.gov/scep/slsc/lead-tool>.

³⁰ <https://www.eia.gov/consumption/residential/>.

³¹ US DOE Office of Vehicle Technology, 2018: <https://www.energy.gov/eere/vehicles/articles/fotw-1175-march-1-2021-vehicles-registered-district-columbia-averaged-22-0>.

³² Energy Information Administration Gasoline and Diesel Fuel Update: <https://www.eia.gov/petroleum/gasdiesel/>.

Tool does not provide estimates of transportation energy use by household income. Transportation energy spending is relatively inelastic, especially in rural areas where most households are highly dependent on personal vehicles for daily travel. As noted above, the most recent data we found noted that lower income households tend to drive 1,000 – 1,500 miles fewer than households in higher income brackets.³³ We discounted the VMT in the SLOPE Tool by 1,500 miles to more accurately capture the travel of low-income Maine households.

Household Income

The American Community Survey (ACS) is an annual survey conducted by the US Census Bureau. The ACS provides estimates of household income and demographics, at a variety of geographic scales. To reduce variability, the ACS is batched in 5-year increments. We used 5-year estimates of 2018-2022 ACS for median household income statewide and by county.

Interviews with Stakeholders

We conducted interviews with the following stakeholders and ERAC members to better understand the experience of households facing high energy burdens and implementation of available assistance programs: the Governor’s Energy Office, Office of the Public Advocate, the Efficiency Maine Trust (EMT), the Public Utilities Commission, MaineHousing, Versant Power, Central Maine Power, the Council on Aging, Maine Equal Justice, and the Maine Community Action Partnership (MeCAP).

Results

Total Energy Burden

Total energy burden is 30% for Maine’s low-income households, three times the burden for all households.

Statewide, Maine households are spending an average of \$7,875 on their total energy costs, including transportation energy, electricity, and other household fuels (fuel oil, natural gas, propane, wood, etc.). For low-income households, we estimate that spending is slightly lower: \$7,170.

In contrast, total energy burden varies dramatically with income: across all households statewide, total energy burden is 10%, and 30% among low-income households, more than double the combined energy burden affordability threshold of 12% noted in Table 1. Spending

³³ Streetlight analysis of the 2017 National Household Travel Survey: <https://www.streetlightdata.com/miles-driven-tax-equity-ev-future/>.

on transportation makes up about half of total energy spending for both all households and low-income households.

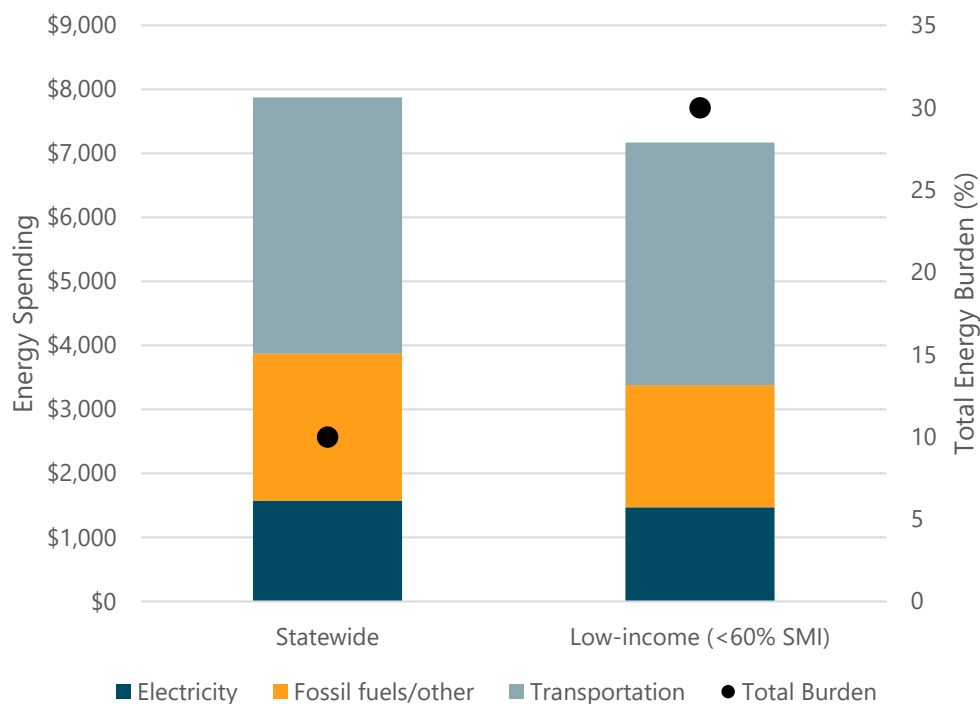


Figure 2. Total energy spending and burden statewide for all households and low-income households.

Home Energy Burden

- **Home energy burden for low-income households is 14%, more than double the 6% affordability threshold**
- **Maine's aggregate home energy affordability gap is \$363 million**
- **Over 200,000 households are facing unaffordable home energy costs**

Excluding transportation energy, statewide, low-income households are facing home energy burdens of 14%, which is nearly three times the average home energy burden of 5% and more than double the 6% affordability threshold (Figure 3).

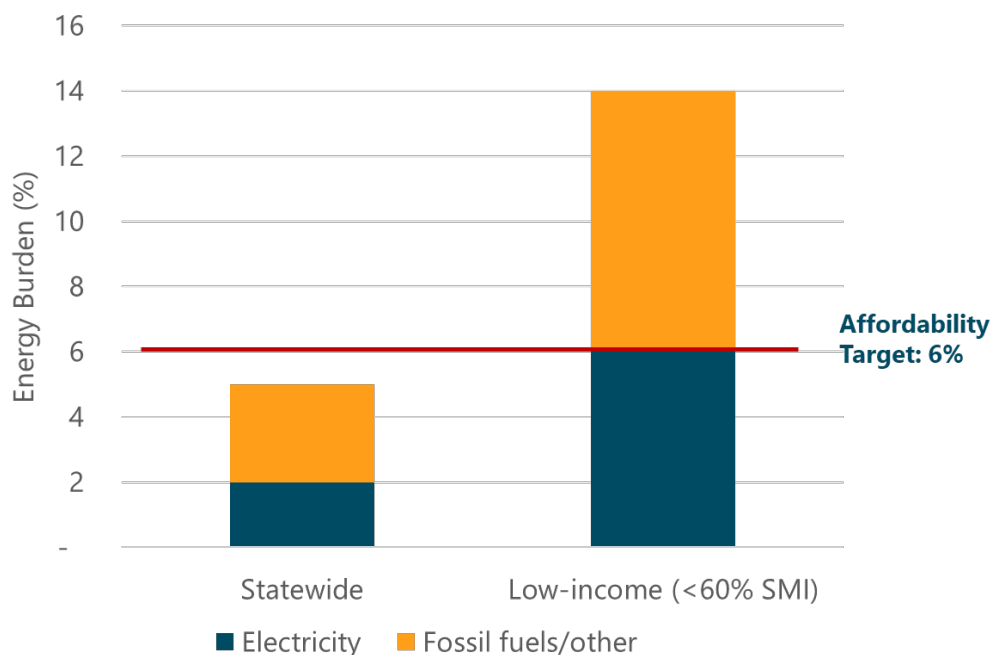


Figure 3. Statewide home energy burdens, for all households and low-income households.

Relative to the 2019 study of energy burden, home energy burden (electricity, wood, fossil fuels) has increased slightly, from 19% to 20% for households at 150% FPL (Table 3). For all incomes, average energy burden (5%) is just below the affordability target (6%). Low-income energy burden is more than twice the affordability threshold for <60% SMI, and about four times the threshold for <150% FPL. Relative to 2019, both low-income and overall burden increased.

Table 3. Comparison of home energy burden: 2019 Energy Burden Study and 2024 income thresholds.

	150% FPL (2019 study)	150% FPL (2024 LEAD)	60% SMI (2024 LEAD)
Average Home Energy Burden	19%	20%	15%
Average Household Income	<i>Not reported</i>	\$16,171	\$23,795
Total Households	<i>Not reported</i>	97,448	163,980

The home energy affordability gap is both wide and deep in Maine. Among low-income households, the home energy affordability gap is over \$2,400 annually for households earning less than 30% of SMI and over \$1,600 for households earning less than 60% SMI (Table 4). **Even more moderate-income households (60-80% of SMI and well above income eligibility guidelines for most programs) are facing high burdens of 8% and an annual affordability gap of \$690.** However, households in this income band are below the 4% affordability threshold for electricity spending. In aggregate, the statewide affordability gap across households earning less than 80% SMI is \$363 million.

Table 4. Home energy affordability gap by income band.³⁴

		Spending		Burden			Affordability Gap	
SMI Band	# HH	Electricity	Other fuels	Total	Electricity	Other fuels	Per HH	Statewide Aggregate
0-30%	62,743	\$1,390	\$1,673	28%	13%	15%	\$2,411	\$151,283,410
30-60%	101,237	\$1,519	\$2,037	11%	5%	6%	\$1,649	\$166,972,210
60-80%	65,688	\$1,493	\$2,226	8%	3%	5%	\$690	\$45,251,150
80-100%	63,341	\$1,510	\$2,310	6%	2%	4%	-	-
100%+	287,163	\$1,659	\$2,516	2%	1%	1%	-	-
Total								\$363,506,770

Electricity Affordability Gap

Using an electricity affordability threshold of 4%, that burden adds up to an aggregate affordability gap is \$85 million across low-income households statewide (Table 5). Across all low-income households (the 0-30% SMI and 30-60% SMI income bands combined), the average electricity burden is 8%. In contrast to home energy burden, moderate income households are not facing excessive electricity burdens, on average.

Table 5. Electricity affordability gap by income band.

				Affordability Gap	
SMI Band	# HH	Spending	Burden	Per HH	Statewide Aggregate
0-30%	62,743	\$1,390	13%	\$955	\$59,947,172
30-60%	101,237	\$1,519	5%	\$247	\$25,094,628
60-80%	65,688	\$1,493	3%	-	
80-100%	63,341	\$1,510	2%	-	
100%+	287,163	\$1,659	1%	-	
Total					\$85,041,799

³⁴ Source: DOE LEAD Tool. See Appendix A for a range of incomes in each SMI band.

Closing the Affordability Gap

As noted above, estimates of energy spending derived from the LEAD Tool are based on a combination of survey data and utility data. While the most robust and granular estimates that we are aware of, they may not consistently and accurately capture assistance provided to low-income households.

To understand the extent to which existing assistance programs can close the affordability gap, we present examples of available assistance in Table 6, along with averages of the value of the benefit per household. (See the appendix for a table of payment assistance and efficiency programs available to low-income households). Depending on the programs in which a household is enrolled, the value of available assistance, efficiency upgrades, and solar, ranges from \$325 to over \$2,000 annually, possibly closing the gap for some households that are able to access to full range of programs available. For households earning above 60% SMI, there is limited assistance to close the \$690 gap. These households do have access to Efficiency Maine rebates and discounts for moderate income households, including weatherization, heat pumps, and heat pump hot water heater offerings.

New programs that will be launched in 2025, such as Solar for All, and continued heat pump deployment offer the opportunity for low- and moderate-income households to achieve substantial, long-term reductions in their energy burden through efficiency upgrades and solar installations. A previous study that VEIC conducted in Connecticut in 2020 found that the combined value of deep energy retrofits and solar was \$1,300 annually and enough to close the affordability gap even for very low-income households.³⁵ Note, in order to access efficiency programs, many low-income homes may require significant repairs that may be beyond the scope of existing programs. In some cases, homes may be ineligible for programs due to structural or other issues such as vermiculate in the home. There are examples of states utilizing federal funds (e.g., American Rescue Plan Act, the Inflation Reduction Act) toward home repair to minimize number of homes deemed ineligible.

Table 6. Value of existing programs to reduce low-income home energy burden.

Program	Annual value per Household
HEAP	\$540
LIAP	\$325
Weatherization	\$400

³⁵ <https://www.ctgreenbank.com/wp-content/uploads/2020/11/Mapping-Household-Energy-and-Transportation-Affordability-Report-Oct-2020.pdf>.

Program	Annual value per Household
Efficiency (heat pump installation)	\$300-\$1,000+ ^{36, 37}
Solar	\$200-\$300 (15% bill savings) ³⁸

Tracking the Home Energy Affordability Gap Over Time

We also used historic LEAD data to explore trends in Maine’s aggregate home energy affordability gap. The gap increased substantially from 2020 to 2022, more than doubling (Figure 4). Based on current incomes in the state and energy prices, we estimate that for 2024, the gap will be \$403 million. Our estimates of aggregate affordability gap are considerably lower than those estimated by Fisher, Sheeran, and Colton’s HEAG Tool. The HEAG Tool estimates a gap of over \$500 million in 2022. There are some notable differences in methods between this study and the HEAG Tool: our data relies primarily on the LEAD Tool, while the HEAG Tool relies on the ACS and RECs. The studies also use different (although similar) definitions of low-income: we use 60% SMI in this study and the HEAG Tool uses 200% FPL.

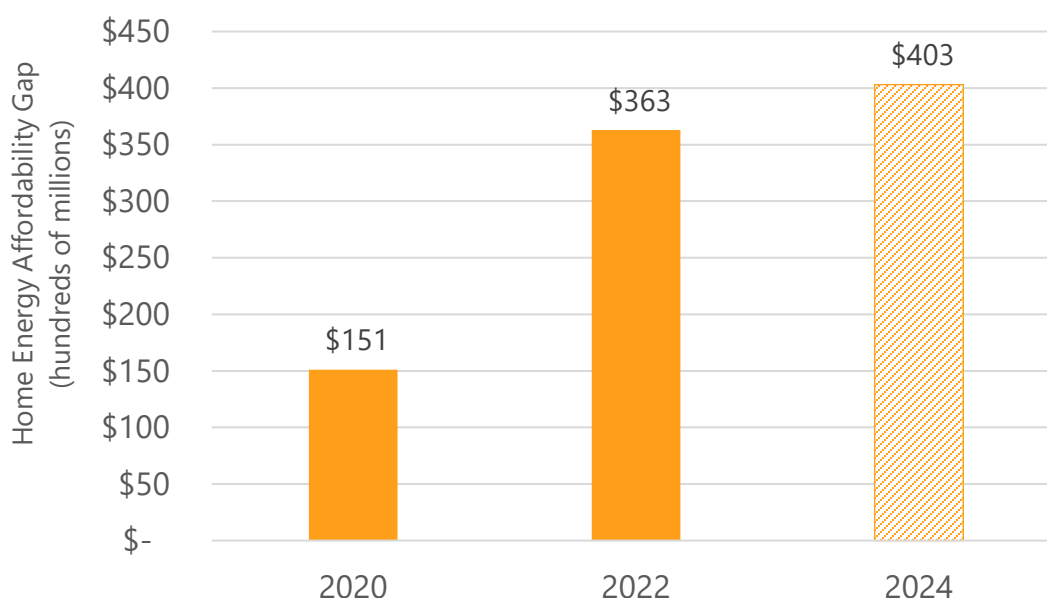


Figure 4. Home energy affordability gap, 2020-2024.

³⁶ Efficiency Maine Trust Home Heating Calculator: <https://www.efficiencymaine.com/at-home/heating-cost-comparison/>.

³⁷ Annual fuel savings achieved by heat pump installation relative to a fossil fuel baseline; 2023 Vermont Energy Burden Report, Appendix A: <https://www.efficiencyvermont.com/Media/Default/docs/landing-pages/energy-burden-report/2023-EfficiencyVermont-EnergyBurdenReport.pdf>.

³⁸ Savings estimate from the Maine Governor’s Energy Office.

County Home Energy Burden

By county, energy burden among low-income households (those earning less than 60% AMI) varied from 19% in Washington County to 10% in Cumberland County (Figure 5). With the exception of Cumberland County, low-income households are consistently facing 'severe energy burdens': burdens greater than 10%.³⁹

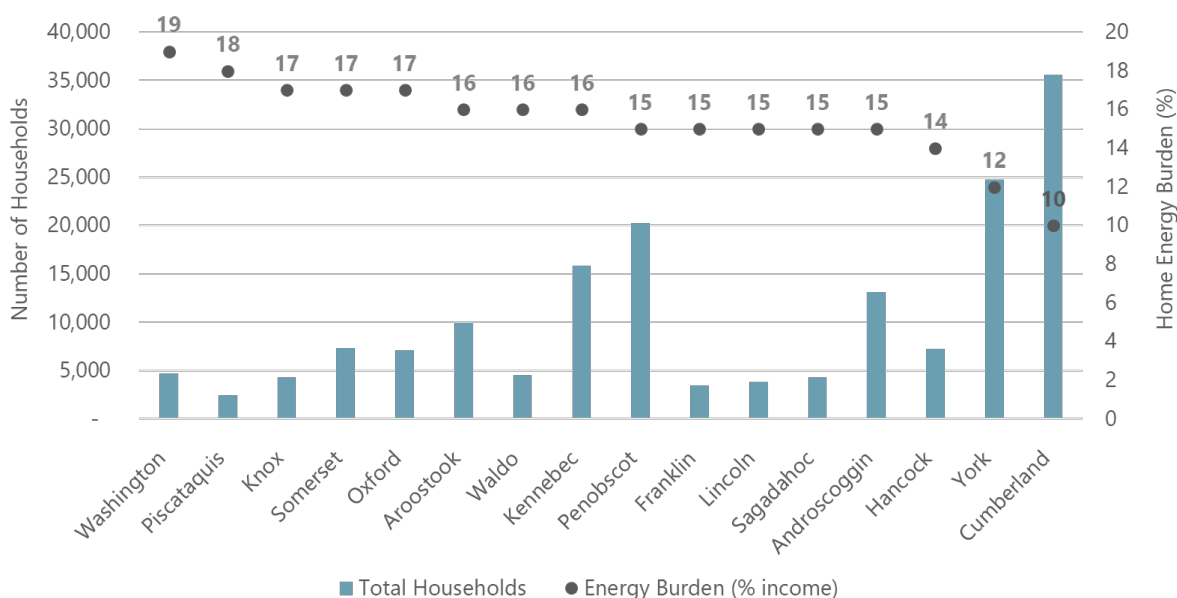


Figure 5. Number of low-income households and average low-income home energy burden by county.

We also examined low-income home energy burden by county, separating electricity burden from fuel burden (including propane, natural gas, fuel oil, and kerosene; Figure 6). The solid line indicates the 6% affordability threshold and the dashed lined indicates the 10% threshold of severe energy burden. Most low-income households in state are well-above the threshold for being severely energy burdened and in no county do low-income households fall below the 4% affordability for electricity burden.

³⁹ See: <https://www.aceee.org/sites/default/files/pdfs/ACEEE-01%20Energy%20Burden%20-%20National.pdf> and <https://www.nrdc.org/bio/maria-correa/resource-energy-burdened-communities>.

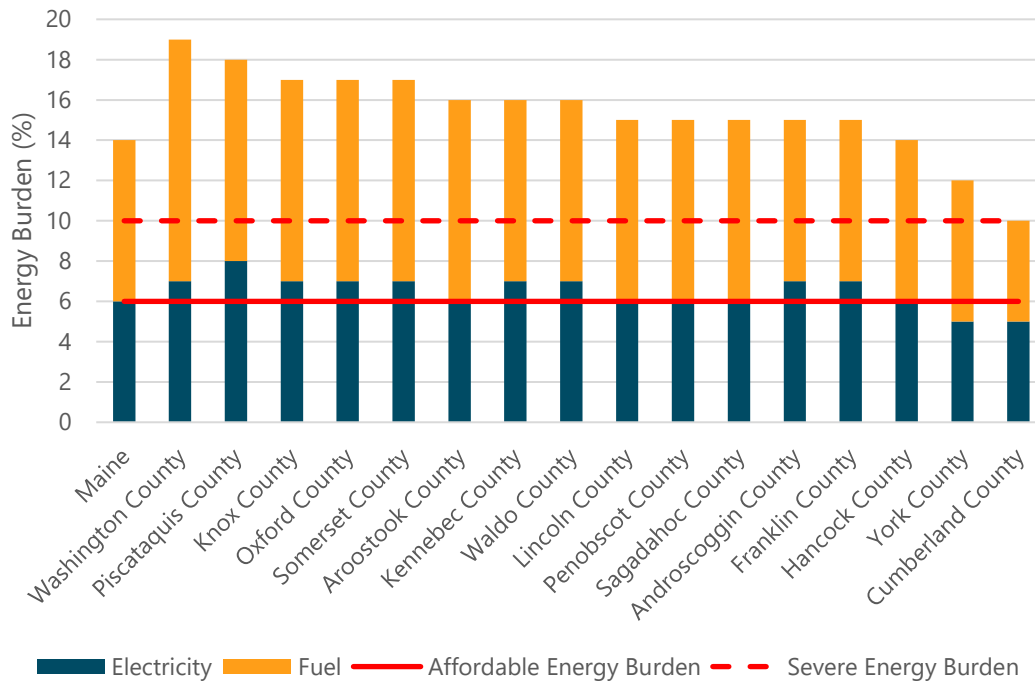


Figure 6. Low-income home energy burden by county.

By county, aggregate affordability gap is highest in York and Cumberland Counties, where it is over \$40 million (Table 7). The high aggregate gap in these counties is driven by population: these more populous counties have more households overall, and more low-income households relative to other counties in the state. See Appendix B for a detailed look at county-level gap by household.

Table 7. Aggregate home energy affordability gap by county.

County	AMI Income Band					Grand Total
	0-30%	30-60%	60-80%	80-100%	100%+	
Androscoggin	\$10,619,287	\$15,405,478	\$4,912,757	\$405,810	\$0	\$31,343,332
Aroostook	\$8,741,186	\$10,690,136	\$5,246,976	\$2,559,797	\$0	\$27,238,095
Cumberland	\$26,447,046	\$14,547,767	\$0	\$0	\$0	\$40,994,813
Franklin	\$2,896,060	\$3,916,197	\$1,308,015	\$585,846	\$0	\$8,706,118
Hancock	\$7,064,765	\$7,299,504	\$2,385,399	\$510,959	\$0	\$17,260,627
Kennebec	\$14,426,312	\$20,599,997	\$7,488,358	\$2,215,542	\$0	\$44,730,209
Knox	\$5,229,564	\$4,292,440	\$1,913,421	\$533,632	\$0	\$11,969,057
Lincoln	\$3,859,324	\$4,381,248	\$1,856,779	\$465,054	\$0	\$10,562,406
Oxford	\$6,372,072	\$8,591,766	\$3,121,417	\$1,460,494	\$0	\$19,545,749
Penobscot	\$19,075,042	\$17,761,352	\$3,426,175	\$621,476	\$0	\$40,884,045
Piscataquis	\$2,792,134	\$2,850,689	\$1,213,750	\$577,681	\$0	\$7,434,254
Sagadahoc	\$5,800,425	\$3,859,426	\$1,259,810	\$445,688	\$0	\$11,365,349
Somerset	\$7,099,082	\$8,266,804	\$2,760,166	\$1,015,078	\$0	\$19,141,130
Waldo	\$4,692,650	\$4,996,702	\$1,991,237	\$1,056,741	\$0	\$12,737,330
Washington	\$5,568,362	\$6,031,809	\$2,674,523	\$1,282,430	\$0	\$15,557,123
York	\$22,864,360	\$21,060,250	\$4,078,110	\$0	\$0	\$48,002,720
Grand Total	\$153,547,671	\$154,551,566	\$45,636,893	\$13,736,228	\$0	\$367,472,357

Energy burden and tenure (Renters and Homeowners)

Energy burden is higher among low-income households that own their homes (15%) rather than rent (10%), presumably because renters are more likely to live in smaller, multifamily units, rather than single family homes. About a quarter of Maine's households rent. By county, a similar pattern emerges: low-income homeowners have higher energy burdens than low-income renters (Figure 7).

Although low-income renters have lower energy burdens than low-income homeowners, burdens are still consistently above the 6% affordability threshold. Renters have less control over the efficiency of their dwelling and are limited in their ability to install upgrades and reduce their burden. The 'split incentive' between renters and building occurs when building owners face the costs of efficiency upgrades but do not necessarily realize the savings. This issue has existed for decades and remains a huge barrier to improving the energy efficiency in rental housing. Programs and models to alleviate the split incentive and high energy burdens among renters do exist including green lease programs and rebate programs for building owners.⁴⁰ In addition, Maine's Window Dressers program helps renters alleviate high winter heating bills through

⁴⁰ Best practices for increasing rental housing efficiency reviewed here: <https://imt.org/wp-content/uploads/2020/08/ACEEE-Summer-Study-2020-Final-Paper.pdf> and here: <https://www.energymaine.com/energyinformation/resources-renters/>.

weatherization.⁴¹ Efficiency Maine has a number of resources for renters,⁴² as well as programs focused on serving multifamily building owners, including a multifamily-specific weatherization program.⁴³

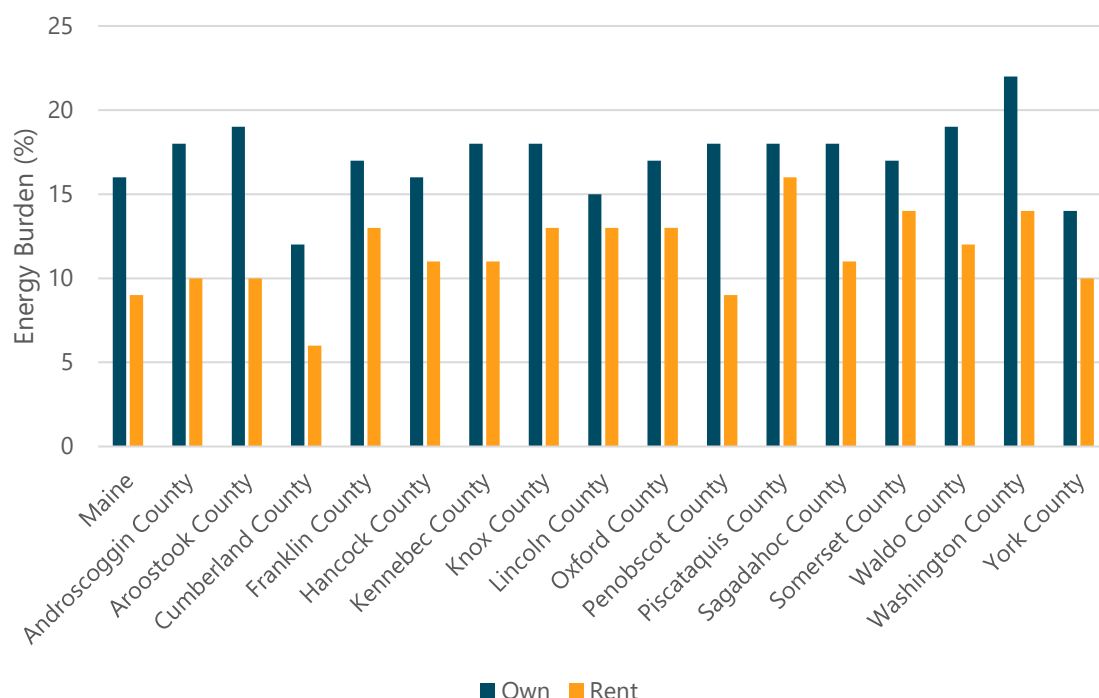


Figure 7. Low-income home energy burden by tenure.

Electricity

- **Maine's low-income households are facing electricity burdens of 6%**
- **Enrollment in assistance programs has increased in recent years**

According to the LEAD Tool, low-income households in Maine spend \$1,425 on electricity annually and have an average electricity burden of 6%. Among low-income households that heat primarily with electricity, electricity burden is 7% and spending is \$1,645. According to the 2022 ACS, 9% of homes in Maine use electricity as their primary heat source (52,000 households). Cumberland County has both the highest number of households heating with electricity (over 14,000) and the highest proportion (11.5%). Renters are much more likely to

⁴¹ <https://windowdressers.org/>

⁴² <https://www.efficiencymaine.com/energyinformation/resources-renters/>

⁴³ <https://www.efficiencymaine.com/at-work/multifamily-weatherization-solutions/>

heat with electricity than households that own their homes. Although renters make up only 28% of households statewide, they make-up 57% of households that heat with electricity.

Electricity Usage

Both Versant Power and Central Maine Power (CMP) shared data of residential electricity usage for all households in their territory, including participants in income-eligible programs (LIAP, HEAP, ELP, and AMP). Versant Power serves parts of Hancock, Penobscot, Washington, Waldo, Aroostook, and Piscataquis Counties. Versant territory is divided into two districts: the Bangor Hydro District, which includes the Bangor area and parts of coastal Maine, and the Maine Public District, which includes parts of Aroostook County. Versant serves over 138,000 residential accounts; 12,620 accounts are enrolled in LIAP for the 2023-2024 program year. LIAP benefits are determined by income level: 0-75% FPL, 76-100% FPL, 101-125% FPL, and 126-150% FPL. CMP serves 653,170 residential and commercial electricity customers in central and southern Maine, including some of the state's more urban areas: Portland, Lewiston, and Augusta. In 2024, CMP had 35,833 accounts enrolled in LIAP, AMP, and ELP.

In both CMP and Versant territory, customers receiving assistance use more electricity than the average residential customer. With few exceptions, Versant customers receiving LIAP benefits used more electricity, annually, than the average residential customer in both of Versant's service territories: 6,400 kWh for all residential accounts vs. 7,200 kWh for accounts receiving LIAP (Figure 8). A number of factors could be driving higher usage among LIAP recipients in Versant territory, most likely housing type and condition. The counties served by Versant are characterized by low rates of multifamily housing.

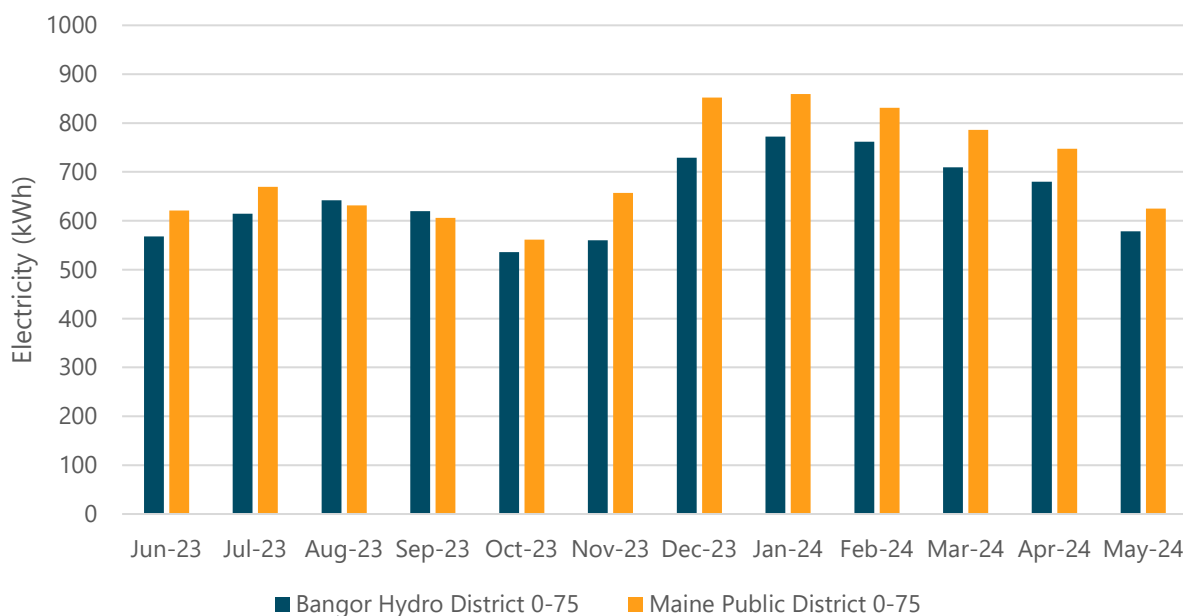


Figure 8. Average monthly electricity usage for Versant Power LIAP recipients earning <75% Federal Poverty Level.

In both of Versant Power’s service districts, LIAP recipients in the lowest income bracket (0-75% FPL) had the highest levels of electricity usage, approximately 24-30% higher than the district-average residential account (Figure 9). Similarly, on a monthly basis, across both districts, customers receiving LIAP generally had higher usage than the average residential account. In both districts, LIAP recipients’ usage was highest in during winter months: December, January, and February. Overall usage was higher in the Maine Public District relative to the Bangor Hydro District, by 500 kWh annually among LIAP recipients and by 800 kWh among all residential accounts.

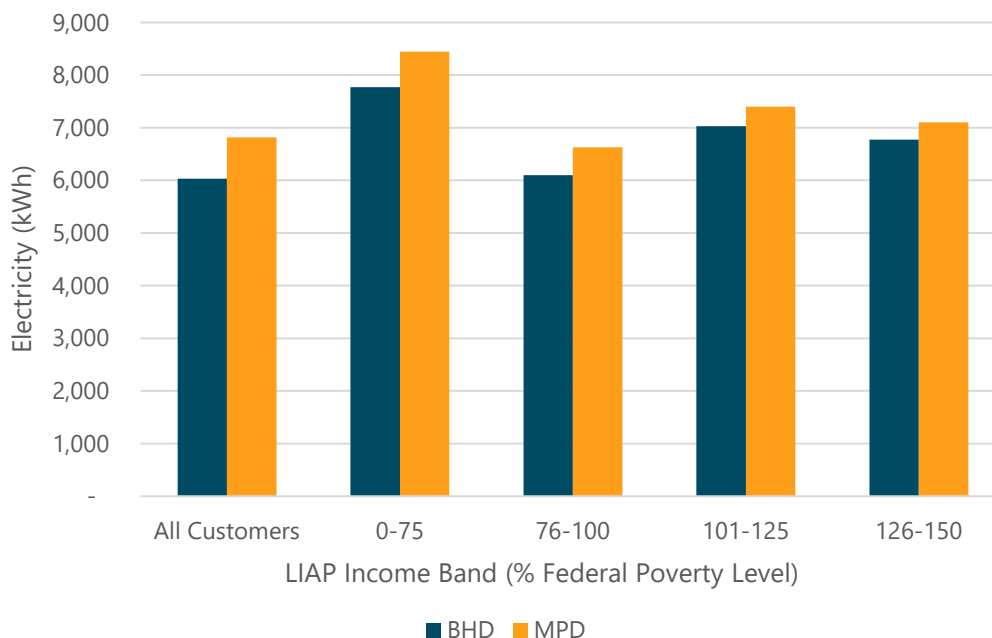


Figure 9. Average annual electricity usage for Versant Power customers and LIAP recipients in the Bangor Hydro District and Maine Public District.

Similarly, in CMP territory, the average residential account used 7,030 kWh in 2024, over 600kWh less than average account receiving assistance (Figure 10). **These data suggest an enormous potential for efficiency and weatherization to reduce usage and burden among low-income households in both CMP and Versant Power territory.**

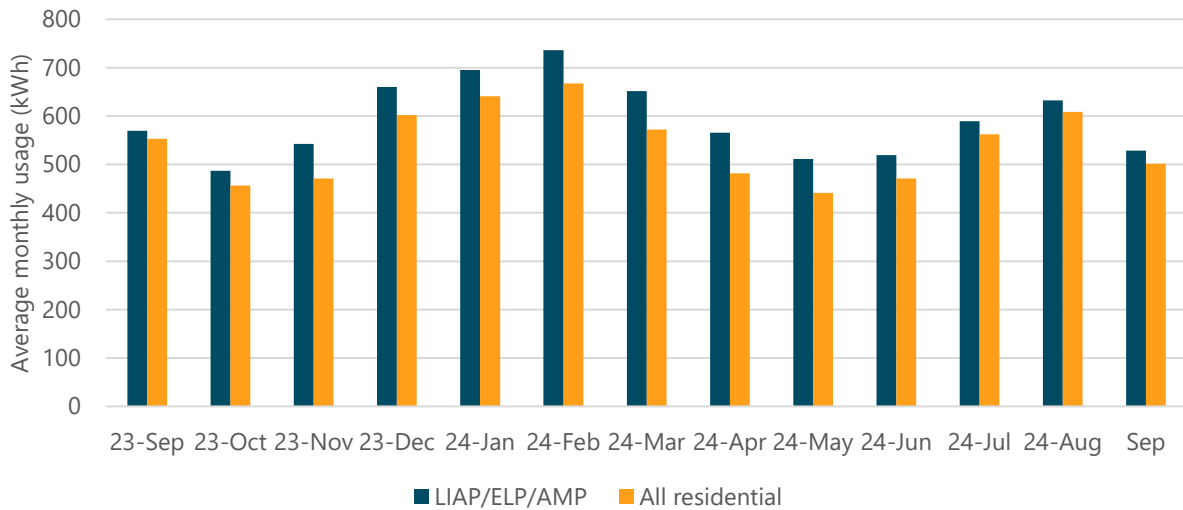


Figure 10. Monthly electricity usage of Central Maine Power residential accounts (all residential accounts and those enrolled in LIAP, ELP and/or AMP).

LIAP recipients and participants in other assistance programs are not necessarily representative of all low-income households; these may be households that sought assistance because they were struggling with high bills. The LIAP participation rate is approximately 50% of all eligible households. According to estimates of spending on electricity (not usage) from the LEAD Tool, electricity spending increases with income band (see Table 5). Further, while we suggest that efficiency upgrades could provide long-term relief from high energy bills, many of these households may struggle to access existing programs if they rent or their houses require significant repairs.

Household Fuels

- **80% of low-income households rely on unregulated fuels.**
- **Burden is highest for low-income households relying on propane and fuel oil**

The most common primary heating source among low-income households statewide is fuel oil (including kerosene; Figure 11). Eighty percent of low-income households rely on unregulated fuel as their primary heating source. As we noted earlier, Maine households commonly use more than one source of heat: we do not have data to characterize how these supplemental heat sources are used, nor their impact on energy burden.

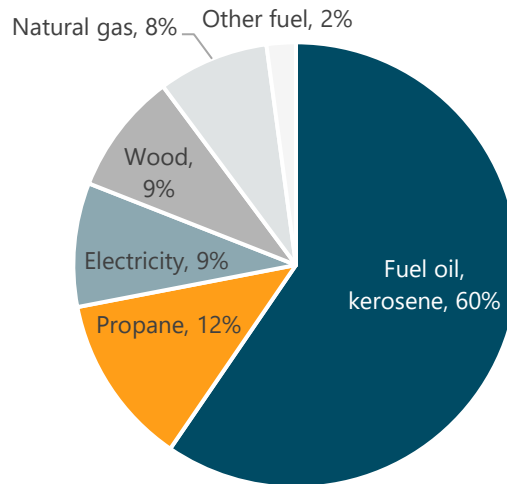


Figure 11. Primary heating source, low-income households statewide.

Low-income households relying on unregulated fuel sources (fuel oil, propane, wood, kerosene) have consistently higher energy burdens than those relying on regulated fuel sources (natural gas, electricity; Figure 12). Low-income households heating with fuel oil and propane have the highest heating burden in our analysis: 10%. The estimates of burden by primary heating fuel presented in Figure 12 do not differentiate between heat pump technology and electric baseboard heating.

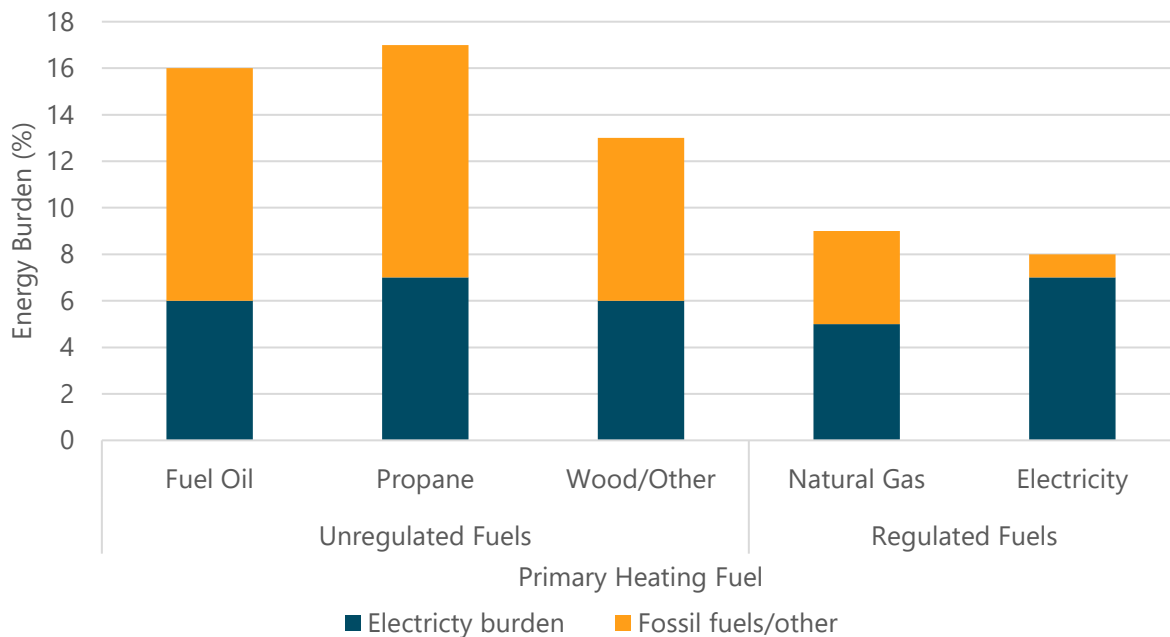


Figure 12. Low-income household primary heating fuel and home energy burden.

Primary heating fuel varies by housing type but not necessarily income (Figure 13). Fuel oil (including kerosene) is most common among single family homes and manufactured and mobile homes. Regulated fuel types (electricity and natural gas) are most common in multifamily homes. Our estimates of primary heating fuel type derived from the LEAD Tool aligned closely with the 2024 Efficiency Maine Baseline Study, which characterizes the state's housing stock.⁴⁴

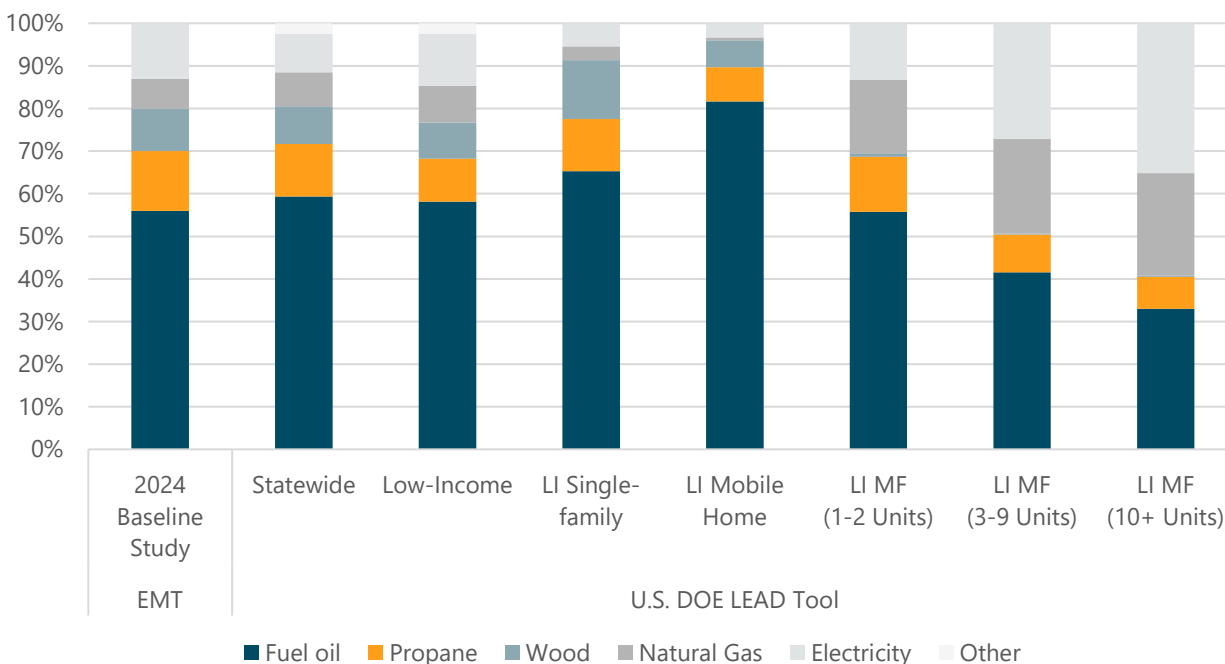


Figure 13. Incidence of primary heat fuel by housing type.

Home Energy Burden and Electrification

As homes transition away from fossil fuels to electricity for heating and transportation, it is important to consider the bill impacts and overall impact on energy burden of electrification. By mid-2023, Maine had achieved a heat pump adoption rate of 13% among low-income homeowners.⁴⁵ The bill impacts of heat pumps are still being studied and are complicated by the fact that cooling needs are expected to increase in the near future.

A 2023 study of energy burden done in Vermont estimated annual benefits of \$215 to over \$500 for households that replace a fossil-fuel based home heating system with a heat pump(s). [Note that the EMT calculator estimates even bigger savings]. This study also reported that a switch away from a gasoline-powered vehicle to a plug-in electric vehicle (EV) would save an average of \$835 annually and reduce total household energy burden by almost 12% for the average

⁴⁴ Maine Residential Baseline 2024:

https://www.efficiencymaine.com/docs/Maine_Residential_Baseline_2024.pdf.

⁴⁵ <https://www.maine.gov/climateplan/dashboard>.

Vermont household.⁴⁶ Rates of EV penetration are much lower than heat pumps among Maine households in general and especially among low-income households. Fewer than 300 low-income EV purchase incentives have been issued.

Transportation Energy

- **For Maine's low-income households, transportation energy burden is 16%, about half of total energy burden.**
- **The transportation energy affordability gap is over \$1,800 annually.**

We estimate that low-income households in Maine are spending \$3,700 on transportation energy annually. Across counties this spending varied from \$3,200 in Cumberland county to \$4,100 in Aroostook and Waldo counties (Figure 14). Among households earning 60% of AMI, burden varied from 6% in Cumberland County to 13.7% in Aroostook County. In all counties, the transportation energy burden exceeds the affordability threshold of 4.2%. The average transportation energy affordability gap is over \$1,800 among Maine's low-income households. In most of Maine's counties, the annual gap is over \$2,000.

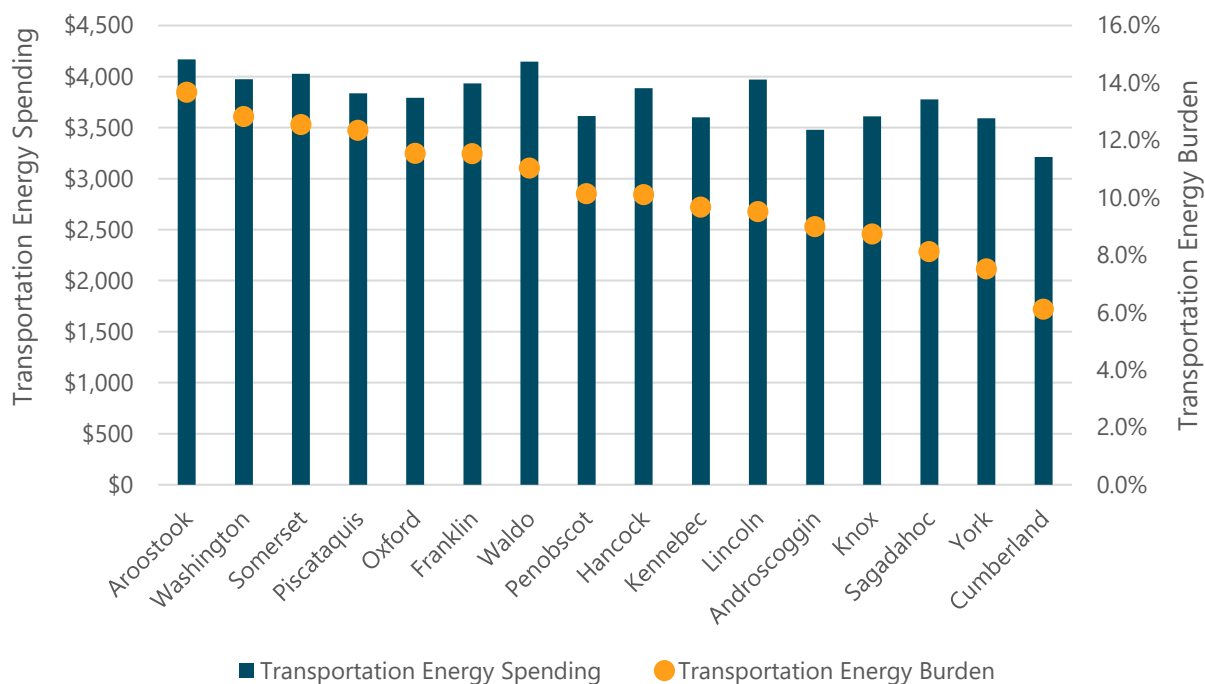


Figure 14. Annual transportation energy spending and burden for households earning less than 60% AMI.

⁴⁶ 2023 Vermont Energy Burden Report: <https://www.encyvermont.com/Media/Default/docs/landing-pages/energy-burden-report/2023-EfficiencyVermont-EnergyBurdenReport.pdf>.

Programming is available to help households reduce their transportation energy burden: Efficiency Maine offers EV purchase incentives of up to \$7,500 for income-eligible households.⁴⁷ In addition, increasing access to public transit reduces reliance on personal vehicles, even in rural areas, reducing overall transportation costs and energy burden.

Energy Burden Experiences

The project team interviewed staff from the following stakeholders to better understand households' experience with energy affordability and accessing available assistance: the Governor's Energy Office, OPA, EMT, the Public Utilities Commission, MaineHousing, Versant, CMP, the Council on Aging, Maine Equal Justice, and the Maine Community Action Partnership (MeCAP). The following themes emerged from our stakeholder conversations:

Difficulty paying bills: According to an MPUC tracking study, over half (53%) of Mainers say they have difficulty paying their bills some of the time, and the number who say they always have difficulty has increased from 8% in Spring 2022 to 14% in Spring 2023. People under 35 are more likely than those 65+ to report difficulty paying.⁴⁸

Multiple stakeholders noted that monthly fixed fees have gone up substantially recently on electricity bills and these increases may disproportionately impact low usage customers.⁴⁹

Versant noted that about a third of their customers are in arrearage, and many owe a significant amount. The disconnect moratorium, in place between October and April, can lead to bills growing to unmanageable levels.

Trade-offs in paying essential bills: ERAC stakeholders and CAP agency staff relayed that people struggling to pay bills are often making trade-offs between housing, medical care and medications, child support, food, transportation, car repair and other bills each month. The total amount as well as the payment date impact ability to pay, for households waiting for paychecks and benefits checks.

Past-due bills and late payments: On average, about 18% of CMP and Versant residential customers have past-due balances each month, averaging \$523 in 2023.⁵⁰ Late payments are not limited to low-income customers – of the CMP customers with past-due balances, CMP estimates that only 17% receive assistance through LIAP.

⁴⁷ See: <https://www.efficiencymaine.com/electric-vehicle-incentives-for-low-and-moderate-income-mainers/>.

⁴⁸ See: 2023 Maine Public Utilities Commission Annual Report.

⁴⁹ We do not have a clear picture of low-income electricity usage broadly. According to estimates on electricity spending from the LEAD Tool, spending increases with income (see Table 5). Usage data provided by Versant Power and CMP showed that households that received LIAP and other forms of assistance used more electricity, on average. However, households receiving assistance are not necessarily representative of all low-income households.

⁵⁰ See: CMP Annual Report of Credit and Collection Activity 2023; Annual Credit and Collections Report Versant Power 2023.

Disconnects: Utilities can disconnect electricity and gas from April through October (not in winter months) for payments more than 90 days past due and balances over a certain level. In 2023, CMP and Versant issued an average of 35,864 disconnection notices per month (to about 5% of customer per month). In 2023 about 7-8% of these notices resulted disconnection. Combined, CMP and Versant initiated about 32,000 residential disconnections in 2023 (to about 4% of customers). The majority of households are able to have service restored by the next month (95%).⁵¹

The experience of receiving a disconnection notice can be stressful for customers, who often call their utility for assistance or payment options. Utility customer service staff are trained to arrange payment plans, direct customers to community action agencies, and troubleshoot high bills. MPUC, OPA and community action agency (CAA) staff are trained to help with similar questions. CAAs noted that it was challenging for customers to get clear answers regarding assistance programs and eligibility. Often customers sometimes go back and forth between the CAA and their utility. CAA staff suggested equipping all frontline customer service representatives at the utilities with a MeCAP one-pager to ensure that CS representatives have at least a high-level understanding of the role of the CAAs and program eligibility broadly.

Delivered fuels: Delivered fuels are more expensive than natural gas heat or heating with heat pumps. Kerosene has been especially costly and volatile in recent years. Residents of manufactured homes are more likely to heat with kerosene or propane and most vulnerable to these price fluctuations. Missed or late payments on fuel bills can have a greater impact on fuel supply than missing electric or gas payments: Unlike electric and gas utilities who follow regulations on disconnects (and cannot disconnect service in the winter), few smaller fuel supplier have the financial capacity to “float” missed payments. Customers who cannot pay on time may not receive a fuel delivery.

Space heaters: The Office of the Public Advocate, CMP and Versant Power receive numerous calls from consumers facing unexpectedly high bills. Staff assist customers in diagnosing reasons for high bills and finding solutions or assistance. Space heaters are a frequent cause of high bills. Space heaters are also a fire hazard, and local fire departments often warn of fire risk, especially when using extension cords. (Other common causes of bill increases are Christmas lights, broken appliances and new appliances.)

Ability to upgrade homes: According to the ACS, about 43% of low-income households are renters. Renters typically have limited control over building and equipment maintenance, and fewer options for energy-saving retrofits or upgrades such as weatherization, insulation, heating and cooling equipment, water heaters and refrigerators. While some efficiency programs are open to renters, they may require landlord permission and may be hesitant to bring up building performance issues or efficiency ideas to landlords.

⁵¹ See: CMP and Versant Power Credit and Collections Annual Reports, 2023.

Energy Insecurity

Chronically high energy burdens can lead to energy insecurity. In 2021, the US Census Bureau began conducting Pulse Surveys: quick, online surveys intended to provide a 'pulse' of how households are doing overall.⁵² Pulse surveys are conducted seasonally and cover a variety of topics, including energy insecurity. The US DOE launched the State Energy Insecurity Data Tool based on pulse survey data.⁵³ The tool reports the percent of respondents who indicated they were experiencing some form of energy insecurity:

- 'Any energy insecurity'
- Reducing spending on food or medicine to pay for energy
- Leaving the home at an unhealthy temperature

Levels of energy insecurity are relatively for Maine, across years and household incomes (Figures 15, 16). Again, it is important to note that pulse surveys are *not* intended to be robust representations of the population as a whole; they are meant to capture the general pulse of the population at a certain point in time. Rates of reported energy insecurity decline with household income and were lowest in 2021 for all income brackets.

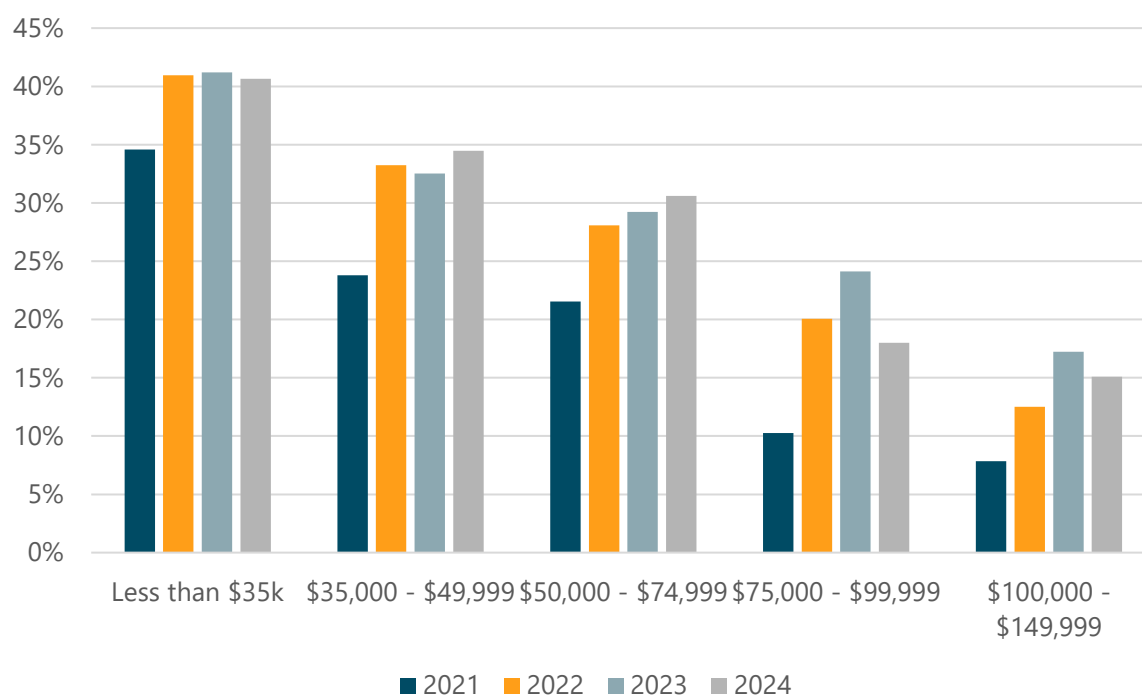


Figure 15. Self-reported energy insecurity in Maine by household income, 2021-2024.

⁵² <https://www.census.gov/data/experimental-data-products/household-pulse-survey.html>.

⁵³ <https://www.energy.gov/justice/tools>.

The tool also reports energy insecurity seasonally (Figure 16). Strong seasonal trends are not present in these data, suggesting that assistance is needed year-round.

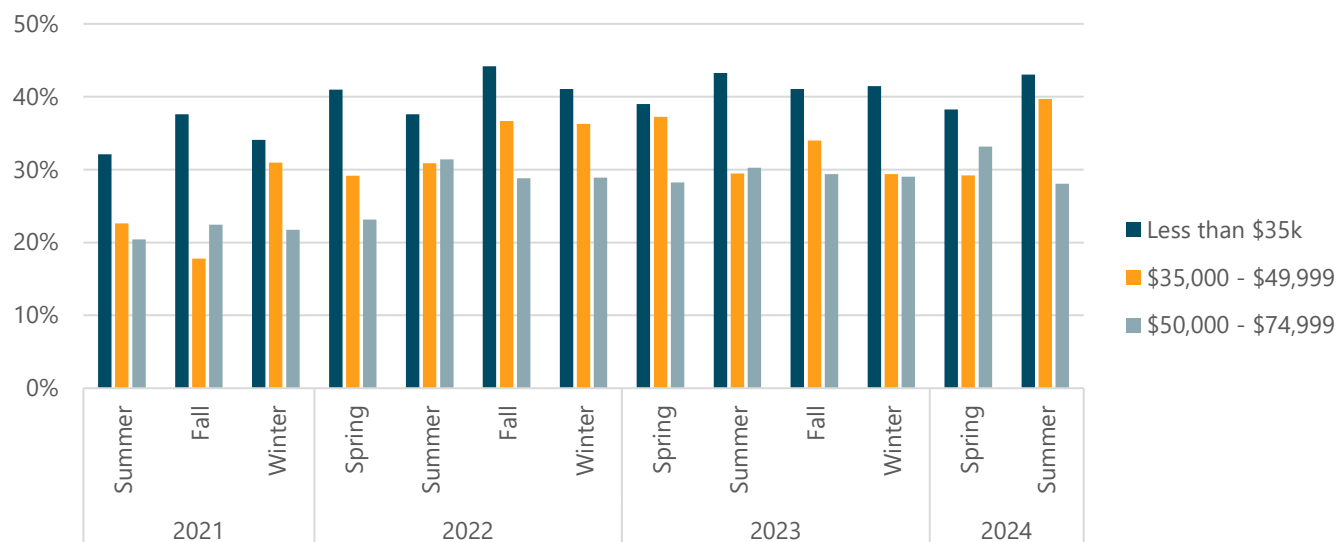


Figure 16. Energy insecurity in Maine by household income and season, 2021-2024.

Energy Affordability Programs and Enrollment

Maine state agencies and partners administer numerous programs to manage or reduce energy costs (see Table 8 and Appendix C). This section describes eligibility, current enrollment or participation, and barriers to adoption. Since 2023 utility assistance programs have coordinated with the Department of Health and Human Services (DHHS) to send letters to eligible households. In 2023 and 2024, approximately 70,000 letters were mailed to qualified households. Program participation has increased since this effort. A next step to increase enrollment is automatically enrolling eligible households. Automatic enrollment would involve DHHS notifying Versant and CMP of all customers who are income-qualified for relevant energy assistance programs.

On average about 18% of CMP and Versant residential customers – about 127,000 - carry a past-due balance on their accounts, averaging \$523 per month. Per the utilities, a small minority of these customers are enrolled in LIAP (electricity bill assistance).

Assistance and Payment Management Programs

Home Energy Assistance Program (HEAP) is the highest-funded assistance program. Customers can apply for the heating season (November to March), and during that season, the state makes direct payments to heating fuel providers. Households enrolled in HEAP are automatically eligible for other programs such as LIAP, and all HEAP recipients (as well as recipients of other means-tested DHHS programs like SNAP and TANF) receive an annual letter to enroll in LIAP.

Payments are not intended to cover 100% of heating costs. In 2024, average HEAP benefits were \$541 per household, a substantial decrease from \$1,165 in 2023 as one-time federal funding increases related to COVID-19 ended.

In the 2023-2024 heating season about 48,923 households participated in HEAP and 42,001 received a full benefit (vs. a nominal benefit if heat is included in rent). Using the number of households reporting <60% SMI as an estimate of eligible households, this equates to a participation rate of about 30%.

Electricity and gas discounts: Regulated electric and gas utilities offer assistance in the form of (a) bill credits on electric bills (**LIAP**) and (b) discounts on natural gas supply costs. Natural gas distribution companies can discount natural gas supply costs by 28-30%.

LIAP assists participating households with their electricity bills. In 2023, LIAP eligibility was increased to 150% FPL. The way the program is administered varies by utility. For Versant customers, LIAP assistance is provided as a credit on their account. The level of assistance provided is based on average residential usage within four income brackets (<75% FPL, 76-100% FPL, 101-125% FPL, and 126-150% FPL). An average credit amount is applied to all qualified customers' accounts, based on income-bracket. For many of these customers, the credit amount is too much, and simply sits on the account unused. The Versant staff that we spoke with noted that *"There are a substantial number of people who don't owe any money because of HEAP and LIAP."* Staff suggested changing the program so that the unused credit can be used to assist other customers. Alternatively, a discounted rate, would also prevent funds going unused. An estimated 30% of Versant's 12,000 LIAP recipients pay nothing.

Central Maine Power collects income information and calculates what an affordable level of electricity would be, targeting 4% of income on electricity. In CMP territory, there are 31,000 households enrolled in LIAP, an increase since coordination with DHHS to identify eligible households.

Emergency fuel delivery: Various programs including through HEAP, community action agencies and local organizations offer emergency oil, propane, kerosene or wood delivery (or payment) for low-to-moderate income customers. Some, like Versant's PowerMatch, target customers who may not qualify for other programs. About 13% of HEAP recipients accessed Energy Crisis Intervention Program (ECIP) funds in 2023.

Payment management: Electric utilities offer levelized billing to smooth monthly costs, and payment plans. The Arrearages Management Program (AMP) is available to HEAP-eligible customers and helps them to gradually reduce past-due balance with regular payments, though it requires on-time payments. All customers – regardless of income level - can negotiate payment plans with their utility or through the PUC Customer Assistance Division.

However, staff at the CAAs and Office of the Public Advocate noted that many households accrue sizable bills on their accounts during the moratorium. This has become a chronic pain

point for community action agencies, and some staff questioned the long-term value of the shut-off to households in need.

Table 8. Eligibility for assistance and payment management programs.

Program	Administrator	Eligibility	Enrollment
Low Income Assistance Program (LIAP) (credit on bill based on income and usage)	CMP and Versant Power	(a) Enrollment in HEAP, (b) participate in means-tested DHHS program, (c) HHI <u>≤150% of FPL</u> Not eligible if you receive housing subsidies that cap total housing costs, including energy	Though utility after enrolling HEAP or means-tested DHHS program (reply to DHHS letter) Otherwise apply through MPUC or CAAs
Natural Gas Utility Discount Rate (discount on delivery and supply rate)	Northern Utilities (Unitil), Bangor Gas, Maine Natural Gas	28-30% discount on delivery changes if HEAP-eligible	Enroll through Gas Utility after enrolled in HEAP
Home Energy Assistance Program (HEAP) (covers portion of heating costs from November to April)	MaineHousing	150% of FPL or 60% of State Median Income (\$32k for a HH of 1; \$62k for a HH of 4) Or at least 1 member receives TANF or SNAP Tiered benefit	Enroll through Community Action Agencies
Arrearage Management Program (help reduce past-due balance with regular payments)	Electric utilities	Eligible for HEAP or LIAP past-due balance of \$500 or more that is at least 90 days past due (all customers can negotiate a payment arrangement; AMP offers additional forgiveness)	Enroll through Utility or Community Action Agencies (MPUC can also help negotiate payment plans)
Energy Crisis Intervention Program (ECIP) (emergency funds to avoid disconnect or empty tank)	MaineHousing (part of HEAP)	HEAP recipients with no remaining benefits and <3 day supply (or equivalent) of heating fuel	Community Action Agencies
Power Match (emergency bill credit to avoid disconnection)	Versant Power	Moderate-income customers who exceed eligibility for HEAP but need emergency assistance	Community Action Agency
Electricity Lifeline Program	Central Maine Power	Eligibility based on income and electricity usage. Customers may also qualify if they live in subsidized	Community Action Agency

Program	Administrator	Eligibility	Enrollment
		housing and use an oxygen pump or ventilator.	
Emergency Fuel Assistance (fill oil/propane tank in emergency)	Non-profits, churches, municipalities		Call 2-1-1 or Community Action Agency

Moderate Income Households and the Benefits Cliff

Many income-eligible programs for healthcare, food, housing and energy have similar eligibility criteria, generally around 150% of the federal poverty line or 60% of SMI. Households just below these thresholds may be eligible for numerous benefits while those just above have less access to assistance, although they may still face unaffordable costs. The drop-off in eligibility for assistance after a specific income level is known as the “benefits cliff.” This section explores energy burden and the affordability gap for households above 60% of the state median income.

Eligibility guidelines can also shift annually, such that for households near the benefits cliff, they may receive assistance one year, and none the following year. Energy affordability stakeholders expressed concern about moderate income customers earning just above the benefits eligibility threshold – i.e., those earning 60-80% of SMI. This concern is supported by our analysis, which found that households in this income band are facing energy burdens of 8%, above the 6% affordability threshold. According to Maine Housing, 62,475 households applied for HEAP for winter 2023-2024, and 48,923 were enrolled – a difference of nearly 14,000 households. Household income above the threshold is a primary – though not only – reason for rejected applications. Further, PUC staff noted that there is not a clear correlation between a household being low-income and being in non-payment, suggesting both that many households who may qualify for low-income assistance are not receiving it, and/or, that households above current income guidelines are struggling with their energy bills.

Energy Affordability Gap for 60-80% of State Median Income: About 65,688 households have incomes between 60-80% of SMI. Mean income for this segment is \$51,437 and on average they are paying \$3,086 for electricity and heat, an energy burden of 8% (Table 4). We estimate that households in this income band are spending nearly \$700 above the 6% affordability threshold, and combined represent a \$45 million affordability gap statewide. In addition, about 63,000 households in the 80-100% SMI income band are at edge of affordability with 6% energy burdens.

Our analysis found that although home energy burdens are excessive for many moderate-income households, electricity burdens are generally within an affordable level. Households earning above 60% of SMI have electricity burdens below the 4% affordability threshold.

Area Median Income: Most federal and state programs use the same income criteria everywhere in the state, regardless of regional differences in incomes and cost-of-living. This means that in higher-income areas – with higher costs-of-living – fewer people will qualify for energy assistance or low-income rebates. Statewide about 39,000 households are above 60% of state median income but below 60% of area median income.

Some programs already assist moderate income households. Efficiency Maine provides tiered incentives for insulation, heat pumps and HPHW rebates, as well as new programs through the Home Energy Rebates program that uses 80% AMI as the income eligibility threshold.⁵⁴

Low-Income Program Participation Trends

Participation in income-eligible programs has increased significantly over the past ten years. LIAP enrollment in Versant territory has increased from less than 8,000 in 2021 to more than 12,000 in 2024 (Figure 17). Increased participation may be due to a combination of increased need for assistance and increased awareness of the program.

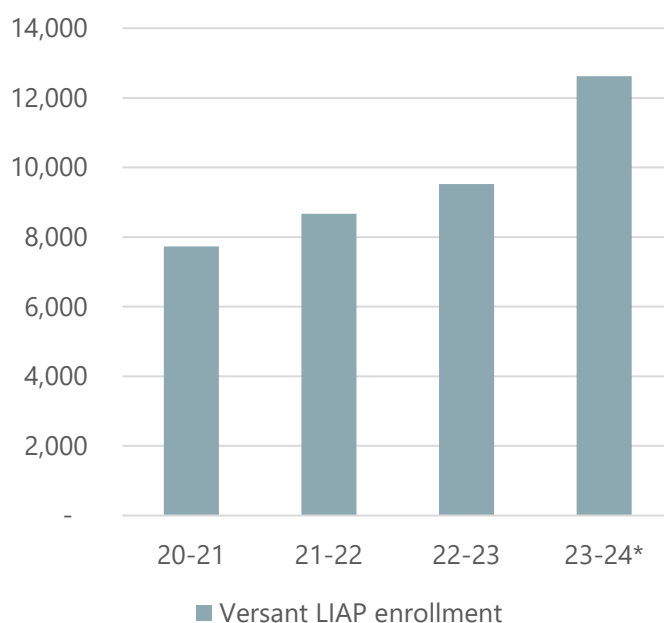


Figure 17. Versant Power LIAP enrollment, 2020-2024.

Similarly, participation in income-eligible efficiency programs has also increased, including the Efficiency Maine heat pump program, heat pump hot water heater (HPHWH) program, weatherization (Wx), and the Maine Housing Central Heating Improvement Program (CHIP). Cumulatively, over the past ten years, these programs have reached over 30,000 homes (Figure

⁵⁴ See this table of 80% AMI income thresholds by county: <https://www.efficiencymaine.com/docs/Eligible-Towns-AGI-MHHP.pdf>

18). In addition, 297 low-income EV rebates have been issued by Efficiency Maine and 2,745 homes have been weatherized through the Weatherization Assistance Program, 2015-2023.

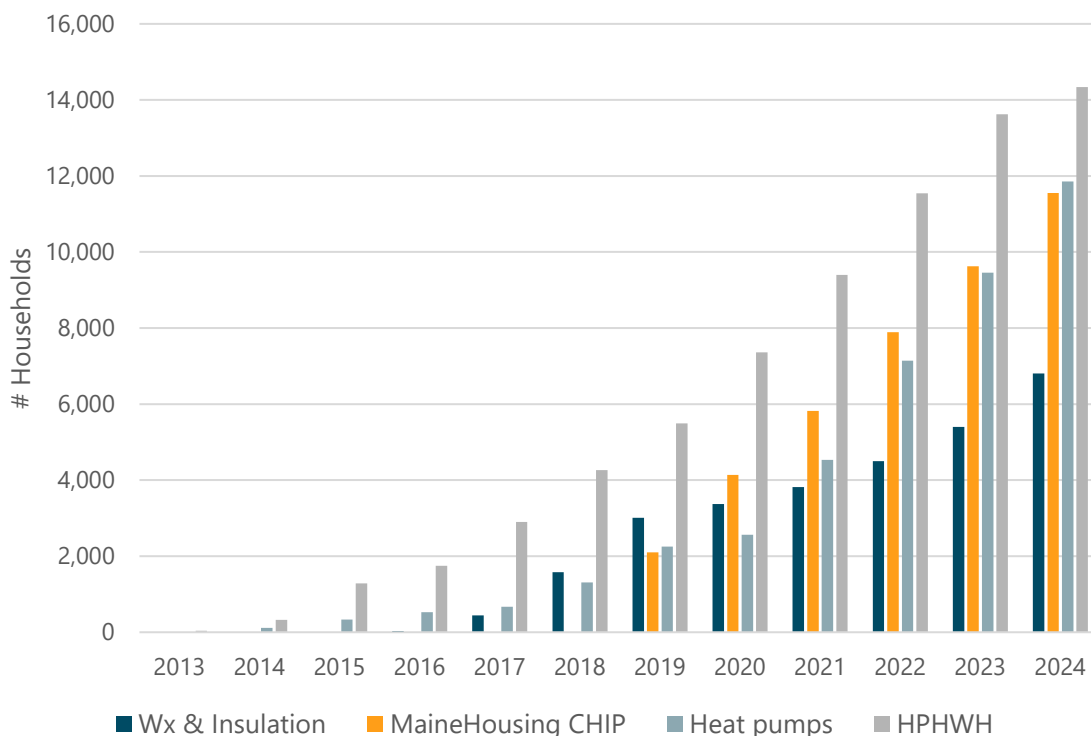


Figure 18. Cumulative enrollment in income-eligible efficiency programs.

Barriers and Opportunities to Increase Participation

Awareness: According to the Critical Insights on Maine Tracking Study, about 56% of utility customers report they are aware of financial assistance programs. Awareness is lowest among customers under age 35.⁵⁵ TV, radio, friends/family and bill inserts are leading sources of information.

Application Appointments: HEAP enrollment requires an in-person or virtual appointment with a Community Action Agency. Most agencies are short-staffed and scheduling out several months. Agencies encourage scheduling appointments in the spring/summer for the next heating period (November – April).

Identifying low-income households: DHHS shares the list of households receiving income-eligible benefits with utilities to facilitate LIAP enrollment. All eligible customers are sent a letter every year, however, this list includes approximately 70,000 households, a portion of the ~160,000 who may be eligible for energy assistance programs.

⁵⁵ Source: MPUC 2023 Annual Report, <https://www.maine.gov/mpuc/sites/maine.gov.mpuc/files/inline-files/2023%20Annual%20Report%20Final.pdf>.

Perceptions of Qualification: Customers struggling with bills may not realize their income level qualifies. The term “low-income” may not resonate and customers may not seek/see income limits. Showing income limits prominently within communications is one way to address this barrier.

Heating is a priority: Some staff have observed that customers struggling more with heating costs than electricity costs may not apply to LIAP, thinking of it as only solving their electricity problem, though bill credits for electricity could leave more income for heat.

Energy Affordability Funding Trends

According to OPA, MaineHousing, MPUC, and other stakeholders, the federal government has scaled back funding for energy assistance, primarily HEAP, from COVID-era levels, and HEAP funding is expected to remain stable for several years. The HEAP budget and benefits per housing decreased by half from 2023 to 2024, from an average of \$1,165 per HEAP household in 2023 to \$541 in 2024. State staff anticipate difficult decisions about how to allocate expected funding, such as whether to expand the eligibility threshold (i.e., to moderate-income customers) and reduce or maintain benefits levels, or keep eligibility criteria similar and increase benefits levels. Tiered benefits may also be an option. (see, for example, MPUC docket 2023-00056). In contrast, LIAP budgets have increased and there is substantially more funding for weatherization and heat pumps through federal and state sources.

The Emergency Winter Energy Relief Plan was enacted in 2023 to provide direct financial relief to Maine families amid record high oil prices experienced at the end of 2022. The plan included:

- **Winter Energy Relief Payment** of \$450 to an estimated 880,000 eligible Maine people, amounting to \$900 in relief for the average Maine family.
- **Home Energy Assistance Program (HEAP) Supplement:** \$40 million to supplement the Home Energy Assistance Program to help HEAP recipients receive a financial benefit equal to last year's.
- **Emergency Fuel:** \$10 million to Maine Community Action Partnerships to help them deliver emergency fuel assistance to prevent people and families from running out of heating fuel and experiencing a heating crisis.

Recent Progress and Changes

Recognizing these challenges, state agencies and utilities have made numerous changes in the past few years:

- More ways to apply for LIHEAP, including new software for an easier online process (in addition to paper, phone or in-person); Prosperity Maine staff can assist applicants with the application, in addition to CAA staff.

- Outreach to households eligible for LIAP: DHHS mails a letter about LIAP to all income-eligible clients in their database (~67,573 households with an FPL \leq 150%; CMP and Versant also mail bill inserts about programs).
- New seasonal heat pump rate can reduce winter heating costs.⁵⁶
- Summer advertising for LIHEAP, including search and social media to encourage early appointments.
- CAAs request and receive information from electric utilities on clients facing disconnection to help prioritize other funding (e.g., PowerMatch).
- Discounts on heat pump water heaters are more accessible following Efficiency Maine's shift from direct install (for low-income homes) to point-of-sale rebates.

⁵⁶ See: <https://www.cmpco.com/account/understandyourbill/newseasonalheatpumprate>

Appendix

Appendix A- Aggregate home energy affordability gap by income band.

Appendix B- Home energy affordability gap by income band and county.

Appendix C- Home energy payment assistance and efficiency programs.

Appendix A

Table A1. Home Energy Affordability Gap by Income Band. (source: LEAD Tool)

			Spending		Burden			Affordability Gap	
SMI Band	# HH	Income range	Electricity	Other fuels	Total	Electricity	Other fuels	Per HH	Statewide Aggregate
0-30%	62,743	\$0- \$20,438	\$1,697	\$1,673	28%	13%	15%	\$2,411	\$151,283,410
30-60%	101,237	\$20,439 - \$40,965	\$1,830	\$2,037	11%	5%	6%	\$1,649	\$166,972,210
60-80%	65,688	\$40,966 - \$54,620	\$1,889	\$2,226	8%	3%	5%	\$690	\$45,251,150
80-100%	63,341	\$54,621 - \$68,275	\$1,919	\$2,310	6%	2%	4%	-	-
100%+	287,163	\$68,275+	\$2,029	\$2,516	2%	1%	1%	-	-
								Total	\$363,506,770

Appendix B

Table B1. Home energy affordability gap by AMI band and county, per household.

	AMI Band									
	0-30%		30-60%		60-80%		80-100%		100%+	
County	Gap/ HH	# HH	Gap /HH	# HH	Gap/ HH	# HH	Gap/ HH	# HH	Gap/ HH	# HH
Androscoggin	\$2,139	4,964	\$1,892	8,142	\$933	5,266	\$90	4,502	\$0	22,951
Aroostook	\$2,034	4,298	\$1,893	5,646	\$1,536	3,416	\$893	2,866	\$0	13,011
Cumberland	\$1,794	14,738	\$699	20,820	\$0	14,630	\$0	14,544	\$0	63,456
Franklin	\$2,306	1,256	\$1,774	2,208	\$1,005	1,302	\$426	1,376	\$0	6,134
Hancock	\$2,494	2,833	\$1,647	4,432	\$930	2,565	\$196	2,608	\$0	12,223
Kennebec	\$2,442	5,907	\$2,073	9,937	\$1,169	6,406	\$406	5,457	\$0	25,745
Knox	\$2,686	1,947	\$1,840	2,333	\$1,023	1,870	\$277	1,928	\$0	9,703
Lincoln	\$2,691	1,434	\$1,824	2,402	\$1,089	1,705	\$273	1,702	\$0	8,604
Oxford	\$2,421	2,632	\$1,929	4,454	\$1,180	2,645	\$570	2,562	\$0	10,890
Penobscot	\$2,439	7,822	\$1,429	12,428	\$472	7,257	\$105	5,893	\$0	30,286
Piscataquis	\$2,708	1,031	\$1,998	1,427	\$1,413	859	\$649	890	\$0	3,448
Sagadahoc	\$3,094	1,875	\$1,591	2,426	\$796	1,582	\$289	1,541	\$0	8,636
Somerset	\$2,457	2,889	\$1,873	4,414	\$1,159	2,382	\$433	2,347	\$0	10,042
Waldo	\$2,635	1,781	\$1,826	2,736	\$1,156	1,723	\$612	1,728	\$0	9,295
Washington	\$2,469	2,255	\$2,471	2,441	\$1,742	1,535	\$1,008	1,272	\$0	6,083
York	\$2,276	10,047	\$1,433	14,696	\$394	10,360	\$0	10,549	\$0	43,753

Appendix C

Table C1. Payment assistance and efficiency programs to improve home energy affordability for Maine's Low-income Households.

Program	Administrator	Eligibility	Enrollment	Eligible Households (estimate)	Estimated Enrollment	Annual Funding (2024)
Payment Assistance						
Low Income Assistance Program (LIAP) (credit on bill based on income and usage)	CMP and Versant Power	(a) Enrollment in HEAP, (b) participate in means-tested DHHS program, (c) HHI ≤ 150% of FPL; (Not eligible if you receive housing subsidies that cap total housing costs, including energy)	Through utility after enrolling HEAP or means-tested DHHS program (reply to DHHS letter) Otherwise apply through MPUC or CAAs	163,980 (Source: DOE LEAD)	40,973 (2024) (Source: MPUC)	\$22.5M for 2023-2024 (in addition to one-time funding of \$15M in 2023)
Natural Gas Utility Discount Rate (discount on delivery and supply rate)	Northern Utilities (Unitil), Bangor Gas, Maine Natural Gas	28-30% discount on delivery charges if HEAP-eligible	Enroll through Gas Utility after enrolled in HEAP	~14,500 (28% of 51,500 residential customers)	-	
Home Energy Assistance Program (HEAP) (covers portion of heating costs from November to April)	MaineHousing	150% of FPL or 60% of State Median Income: \$32k for a HH of 1, \$62k for a HH of 4 Or at least 1 member receives TANF or SNAP (Tiered benefit)	Enroll through Community Action Agencies	163,980 (Source: DOE LEAD)	42,001 (PY2024) (MaineHousing dashboard)	\$26.7M (PY2024) (MaineHousing dashboard)

Program	Administrator	Eligibility	Enrollment	Eligible Households (estimate)	Estimated Enrollment	Annual Funding (2024)
Arrearage Management Program (help reduce past-due balance with regular payments)	Electric utilities	Eligible for HEAP or LIAP past-due balance of \$500 or more that is at least 90 days past due (all customers can negotiate a payment arrangement; AMP offers additional forgiveness)	Enroll through Utility or Community Action Agencies (MPUC can also help negotiate payment plans)	Not available	(40,000+ CMP and Versant customers negotiated a payment arrangement in 2023)	
Energy Crisis Intervention Program (ECIP) (emergency funds to avoid disconnect or empty tank)	MaineHousing (part of HEAP)	HEAP recipients with no remaining benefits and <3 day supply (or equivalent) of heating fuel	Community Action Agencies	42,001	5,642 in 2024 (MaineHousing dashboard)	
Emergency Fuel Assistance (fill oil/propane tank in emergency)	Non-profits, churches, municipalities		Call 2-1-1 or Community Action Agency			
Power Match (emergency bill credit to avoid disconnection)	Versant	Moderate-income customers who exceed eligibility for HEAP but need emergency assistance	Community Action Agency	~2,500 ⁵⁷		

⁵⁷ Estimate based on (a) average monthly disconnect notices to ~7,500 people and (b) estimate that ~1/3 may be moderate income

Program	Administrator	Eligibility	Enrollment	Eligible Households (estimate)	Estimated Enrollment	Annual Funding (2024)
Home Improvements and Efficiency						
MaineHousing Weatherization Program (pays full cost)	MaineHousing	Eligible for HEAP Home is in good structural condition (per Federal guidelines)	Enroll through CAAs after enrolling in HEAP	<89,353 (homeowners <60% SMI)	~300/year in 2022-2023 (MaineHousing dashboard)	\$5.5M in 2023 (MaineHousing dashboard)
MaineHousing Heat Pumps (pays full cost)	Maine Housing	Eligible for HEAP Own & occupy home Home is good candidate for heat pump as a secondary heating source	Enroll through CAAs	<89,353 (homeowners <60% SMI)	968 (2023) (MaineHousing dashboard)	\$4.2M (2023) (MaineHousing dashboard)
Central Heat Improvement Program (CHIP) (repair and replacement with costs \$0-\$400)	Maine Housing	Eligible for HEAP Home is in good structural condition (per Federal guidelines)	Enroll through CAAs after enrolling in HEAP	<89,353 (homeowners <60% SMI)	2,188 (2023) (MaineHousing dashboard)	\$8.6M (2023) (MaineHousing dashboard)
Efficiency Maine Insulation (80% of project cost for low income; 60% for moderate)	Efficiency Maine	Homeowner Low Income: Eligible for HEAP, TANF, SNAP, MaineCare Or low home value relative to county	Apply through Efficiency Maine	~89,000 (homeowners <60% SMI)	1,072 (FY2024) (7/24/2024 ED report)	\$34.6M (FY2024 for all lo-income initiatives) ⁵⁸

⁵⁸ This budget includes all low-income initiatives including direct install and direct-mail initiatives not shown here.
https://www.efficiencymaine.com/docs/ED_Report_7-24-2024.pdf

Program	Administrator	Eligibility	Enrollment	Eligible Households (estimate)	Estimated Enrollment	Annual Funding (2024)
Efficiency Maine Heat Pumps (80% of project cost for low income; 60% for moderate) income; water heaters free)	Efficiency Maine	Homeowner Low Income: Eligible for HEAP, TANF, SNAP, MaineCare Moderate Income: Adjusted Gross Income up to \$70,000 for individual tax filers, or \$100,000 for joint	Apply through Efficiency Maine (who verifies with DHHS)	~89,000 (homeowners <60% SMI)	Low-income: 792 in FY2024 ⁵⁹ Moderate-income: 1,827 in FY2024 (source: 7/24/2024 ED report)	
Efficiency Maine Heat Pump Water Heaters (direct install for low income or rebates for all incomes)	Efficiency Maine		Apply through Efficiency Maine (verification with DHHS)		714 direct install; more through rebates (FY2024) (source: 7/24/2024 ED report)	

****End VEIC Report****

⁵⁹ Note that program design changed in 2024 to primarily whole-home retrofits, from partial-home. In FY2023 the low-income program rebated 1,346 heat pumps as part of partial-home installations.

Appendix D. Is Maine’s CEP-Served Residential Retail Electric Supply Market Affordable?

Is Maine's CEP-Served Residential Retail Electric Supply Market Affordable?

**prepared for Electric Ratepayer Advisory Council
by Timothy E. Howington and Susan M. Baldwin
December 1, 2024**

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EXECUTIVE SUMMARY

We prepared this report to assist the Electric Ratepayer Advisory Council (Council) with the fulfillment of its mandate to evaluate the affordability of electricity in Maine and also with the Council's mandate to advise the Public Advocate on potential savings measures.¹ The residential retail electric supply market directly affects the affordability of electricity.

Drawing in part on our extensive experience analyzing similar markets in other jurisdictions,² we have examined Maine's residential retail electric market, specifically those households that purchase the supply portion of their electricity service from competitive electricity providers, also referred to as CEPs. We prepared the report to inform the Council's policy recommendations regarding any potential modifications to the regulation and to the continuing existence of this market.

Households have the option to purchase the supply portion of their electric service either from the PUC designated Standard Offer Provider (SOP) at the price set by the Public Utilities Commission (PUC) or, alternatively, from one of the dozen companies (CEPs) that sell supply to residential customers in Maine at the price set by the CEP.³ The purpose of our report is to assess how those residential customers who purchase electric supply from CEPs fare relative to the counterfactual that they had instead purchased electric supply through the PUC's standard offer service. Put differently, does the retail electric supply market make electricity more or less affordable for households in Maine?

Our report relies on publicly available information about the prices that residential customers actually paid for supply. (The experience of commercial and industrial customers in the retail electric market differs significantly from that experienced by the residential class and is outside the scope of this report.)

We show that CEP customers overpay substantially for electric supply, and, indeed have been doing so year after year. Of course, some customers may pay less for some periods of time; but, overall customers pay vastly more for an essential item (electricity supply) than when they purchase standard offer service. The market makes electricity far less affordable for those residential consumers who purchase supply from CEPs than if they had simply continued to purchase standard offer service.

Moreover, households participating in the LIAP program are more likely to purchase electricity from CEPs than are other households – low-income households participate disproportionately in the over-priced CEP-served market. Also, CEPs charge LIAP households, on average, slightly more than they charge other households. In other words, those households struggling the most to pay bills, are most likely to be purchasing the least affordable electricity supply.

Is Maine's CEP-Served Residential Electric Supply Market Affordable?

In aggregate, over the eight-year period spanning 2016 through 2023, Maine households paid \$135,000,000 more for electricity supply than if they had purchased standard offer service. In the most recent study year analyzed for our report (2023), the average price charged by each CEP to households exceeded the corresponding standard offer rate. Moreover, because we compute and summarize *average* rates, we do not show the even higher rates that some customers pay to CEPs. Although the annual overpayment declined in the most recent year of our eight-year study period relative to prior years, 2023 stood out because of the relatively high standard offer rates. *Despite* these higher standard offer rates, consumers *nonetheless*, overpaid on average when they purchased from CEPs. Although data on CEPs' actual average prices throughout 2024 are not yet available, one can compare the prices they report to the Office of Public Advocate, as summarized monthly by the OPA with standard offer rates during 2024. This comparison shows that, today, every CEP charges *more* than standard offer rates for electricity supply. Moreover, the CEP's reported prices do not necessarily reflect prices consumers are actually paying. Today's consumers may be paying even higher prices than the ones displayed, for example, on CEPs' websites, especially where consumers have locked into contracts with high prices.

Standard Offer (SO) rates are significantly less in 2024 than they were in 2023. A recent snapshot of prices charged by CEPs to their customers suggests that CEPs have not reduced their rates by a corresponding magnitude and that instead, households are now substantially overpaying for electricity supply sold by CEPs. Presently, CMP customers receiving SO service are charged \$0.1063 per kWh of supply and Versant-BHD customers receiving SO service are charged \$0.1026 per kWh of supply. However, in September 2024, for both CMP and Versant-BHD customers, CEPs charged approximately *five cents more per kWh* than the SO rate. For a household using 550kWh per month, this translates an annual payment of \$330 *above and beyond* what the household would pay for SO service. As a result, on average, electricity is far less affordable for those purchasing supply from CEPs than for those purchasing SO service. Moreover, low-income households are substantially more likely to purchase CEPs' service than are others: in the Versant-BHD area, they are twice as likely as others to purchase CEPs' electricity supply, and in the CMP area, they are 50 percent more likely than are others. Unaffordable electricity supply is most likely to harm those least able to pay their bills.

Although CEPs now serve only slightly more than half (53 percent) of the number of households and sell half the supply as they did in 2016, CEPs generate almost as much revenue as they generated in 2016: in 2023, despite the substantial decline in demand for CEP-supplied electricity, in aggregate, consumers paid CEPs 92 percent of the dollars they paid CEPs in 2023. In other words, demand for CEP-provided electricity supply approximately halved, but revenues stayed approximately constant. In 2016, CEPs generated \$682 per household and in 2023, CEPs generated \$1,173 per household.

Two CEPs (Electricity Maine, LLC and SmartEnergy Holdings, LLC) together serve approximately 60 percent of the residential customers who purchase supply from CEPs and generate approximately 60 percent of the revenue in the residential CEP electric retail supply market.

We also show that CEPs' "green" products are not actually any greener than the Standard Offer. In some instances, instead of purchasing CEPs' high-priced electricity supply, households might

contribute more effectively to the achievement of the state's climate goals by adopting energy efficiency measures that permanently reduce their energy needs and that also help to limit their recurring energy expenditures.

We conclude our report by identifying gaps in data – aspects of the market that merit further analysis, but where such analysis depends on obtaining more detailed information than is presently available.

1. INTRODUCTION

1.1 Scope of Report

We prepared this report to assist the Electric Ratepayer Advisory Council (Council) with the fulfillment of its mandate to evaluate the affordability of electricity in Maine and also with the Council's mandate to advise the Public Advocate on potential savings measures. The residential retail electric supply market directly affects the affordability of electricity.

Drawing in part on our extensive experience analyzing similar markets in other jurisdictions, we have examined Maine's residential retail electric market, specifically those households that purchase the supply portion of their electricity service from competitive electric providers, also referred to as CEPs. We prepared the report to inform the Council's policy recommendations regarding any potential modifications to the regulation and to the continuing existence of this market.⁴ This report summarizes our analysis of the residential retail electric market, specifically those households that purchase the supply portion of their electricity service from competitive electric providers, also referred to as CEPs. (The experience of commercial and industrial customers in the retail electric market differs significantly from that experienced by the residential class and is outside the scope of this report.)

The rates that utilities charge residential customers for distribution and transmission are largely unaffected by the presence of CEPs, that is, all households, regardless of which company provides the supply portion of their electricity, purchase the distribution component from utilities (typically utilities render bills on behalf of CEPs and customers receive a single bill that separately shows the distribution and the supply charges associated with their electricity service). We prepared the report to inform the Council's policy recommendations regarding any potential modifications to the regulation and to the continuing existence of the residential retail electric supply market.

Our report does not include policy recommendations, but we are hopeful that our analyses can contribute to Maine's ongoing improvements to its oversight of the residential electric supply market by the Legislature and by the Public Utilities Commission.⁵

1.2 Organization of Report

This section introduces our report. Section 2 provides background information on the CEP-supplied residential market in Maine. Section 3 describes the sources of information that provide the foundation for our analyses and calculations. Section 4 explains the methodology we use for our analysis and also summarizes the results of our analysis. Section 4 also discusses the "green" products that CEPs sell. Section 5 identifies recommended areas for future analysis.

2. OVERVIEW OF MAINE'S RESIDENTIAL COMPETITIVE ELECTRIC SUPPLY MARKET

2.1 CEP Residential Market: Background

State policymakers opened Maine's residential retail electric supply market to competitive entry in 2000,⁶ with hopes of innovation and lower electricity prices for Mainers. In its 2018 report submitted to the Joint Standing Committee on Energy, Utilities and Technology, the Maine Public Utilities Commission describes Maine's electricity market:

Electricity customers in Maine receive and pay for two distinct services – delivery and supply. Delivery service, which is provided by utilities such as Central Maine Power and Emera Maine, includes the transmission and distribution of electricity. Delivery service rates are regulated by the Maine Public Utilities Commission (Commission) and the Federal Energy Regulatory Commission. Supply service, which is provided by Competitive Electricity Providers (CEPs) and Standard Offer Suppliers (SOS), includes electric energy, capacity and related services. Supply service is not price-regulated but is governed by competition. However, suppliers must have a license before serving customers in Maine, and must comply with Chapter 305 of the Commission's rules, which includes provisions for consumer protection. Customers that do not affirmatively sign up for service with a CEP automatically receive standard offer service. Standard offer service is procured annually through competitive bid processes administered by the Commission. Prices are set based on the lowest bids received.⁷

In total, 13 states and the District of Columbia have opened residential markets to third-party electricity supply (and some have also opened residential markets to third-party gas supply).⁸ The residential sector includes private households and apartment buildings where energy is consumed primarily for space heating; water heating; air conditioning; lighting; refrigeration; cooking; clothes drying, appliances; power tools; and, more recently, heat pumps and charging electric vehicles.

Maine's investor-owned utilities (IOUs) set prices according to three different classes of customers: Residential/Small Commercial; Medium; and Large, as is summarized in Appendix 2.1. In all three instances, the IOUs include residential customers and small commercial customers in the same customer class. Most customers (98.5 percent) are in the residential/small commercial class.

In contrast, the U.S. Department of Energy's Energy Information Administration (EIA) gathers and reports data separately for residential customers (as well as separately for commercial customers and for industrial customers). According to the EIA classifications,⁹ residential

customers represent 33 percent of total electricity usage in Maine. By comparison, commercial customers represent 39 percent and industrial customers represent 28 percent of total electricity demand.¹⁰

Demand for electricity supplied by CEPs breaks out as follows:

- Residential customers represent 8 percent;
- Commercial customers represent 67 percent; and
- Industrial customers represent 25 percent of total electricity demand that CEPs supply.¹¹

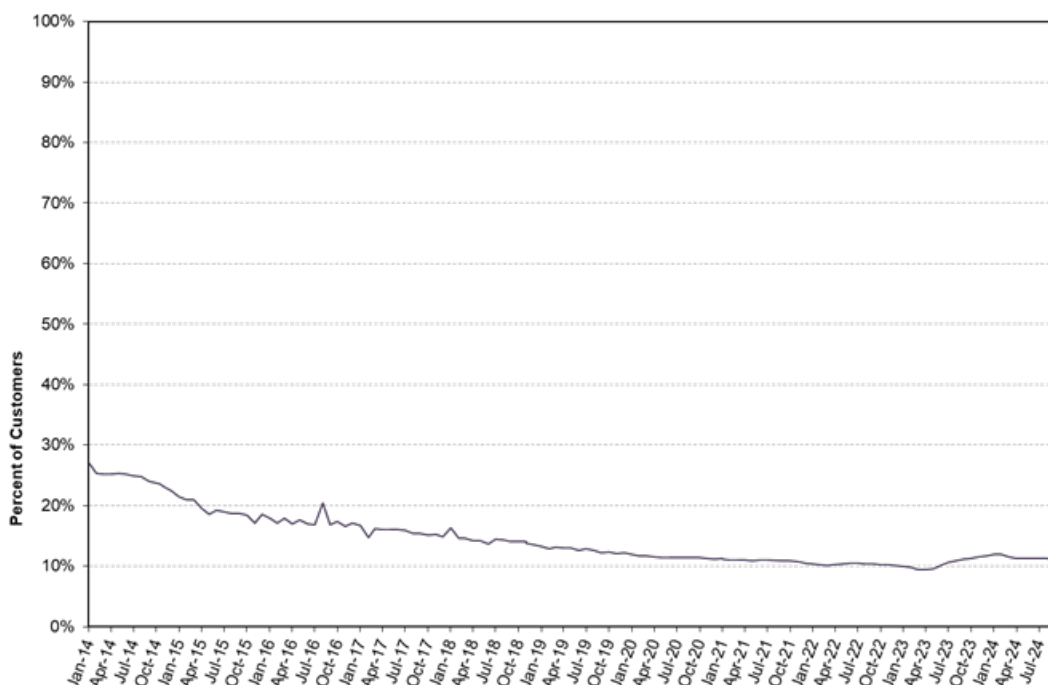
Reliance by small (residential/small commercial) customers on CEPs varies among the IOUs' regions, with the highest percentage in Central Maine Power's region, and the lowest percentage in Versant Power's Maine Public District, as Table 2.1, below, shows.

Table 2.1 Residential and Small Commercial CEP Customers by IOU Region¹²

Utility	Customers	Percent of Total
Central Maine Power	77,235	12.2%
Versant Power - Bangor Hydro District	10,858	8.4%
Versant Power - Maine Public District	238	0.7%
Total	88,331	10.9%

The percentage of small customers (which consist of residential and small commercial customers) served by CEPs has been declining (see Figure 2.1, below) – from 27.7 percent in January 2014 to 11.0% percent in September 2024. This trend combined with the fact that, as of 2023, only 8.3 percent of households rely on CEPs for the supply of electricity¹³ makes the Maine market unique because of its limited CEP presence. This compares with, for example, Massachusetts, where, based on the most recent public data available, 24 percent of low-income households and 14 percent of non-low-income households buy from third-party suppliers.¹⁴ In Connecticut, as of March 2024, retail suppliers serve 23.1% of Eversource Energy residential customers and 18.0% of United Illuminating residential customers.¹⁵

Figure 2.1 Percent of Residential and Small Commercial Customers Served by CEPs (January 2014 – September 2024)¹⁶



The Public Utilities Commission (PUC) reports residential data combined with small commercial data. The “Form 861” reports that CEPs submit annually to the Energy Information Administration (EIA) in the U.S. Department of Energy (DOE) show data for residential customers separately from that for small commercial customers. Table 2.2 below shows that Maine’s CEPs (designated in the Form 861 as “retail power marketers”) reported a total of 64,855 residential customers in their Form 861s in 2023.¹⁷ Only 8.3 percent of Maine households purchased from CEPs in 2023, in comparison with the 89.5 percent of Maine households who purchased standard offer service.

Table 2.2 Residential Supply: EIA (2023)¹⁸

Supply	Total Customers	Percent of Total
Cooperative	10,693	1.4%
Municipal	6,291	0.8%
Standard Offer Service	698,397	89.5%
CEPs (Retail Power Marketers)	64,855	8.3%
Total	780,236	100.0%

2.3 CEP Residential Market: Eight-Year Trend

Table 2.3, below, summarizes annual data spanning 2016 through 2023 about Maine's CEP residential market, specifically total revenues gained by CEPs, total megawatt hours supplied by CEPs, and total customers served by CEPs. Although CEPs now serve only slightly more than half (53 percent) of the number of households and sell half the supply as they did in 2016, CEPs generate almost as much revenue as they generated in 2016: in 2023, despite the substantial decline in demand for CEP-supplied electricity, in aggregate, consumers paid CEPs 92 percent of the dollars they paid CEPs in 2023.

In other words, demand for CEP-provided electricity supply approximately halved but revenues stayed approximately constant. In 2016, CEPs generated \$682 per household and in 2023, CEPs generated \$1,173 per household. Table 4.1, in Section 4, below, summarizes CEPs' average prices during this same eight-year time period, which is a major driver of CEPs' total revenues. The PUC does not regulate CEPs' prices.

Table 2.3 CEP Residential Market: 2016 – 2023

CEP Residential Market in Maine			
Year	Revenues	mWh	Customers
2016	\$80,200,000	792,916	117,544
2017	\$69,055,800	723,472	112,504
2018	\$70,964,600	685,362	105,786
2019	\$62,434,200	535,970	76,053
2020	\$52,701,700	471,783	67,730
2021	\$48,996,200	450,870	64,279
2022	\$58,644,600	415,484	62,100
2023	\$76,059,200	412,066	64,855

Standard offer rates provide a benchmark against which to compare CEP rates. Contributions to Maine's climate goal are also important for assessing the merits of the residential retail electric supply market: Section 4, below, demonstrates that CEPs do not meaningfully contribute to supporting Maine's climate goals. CEP "amenities" (marketing give-aways such as airline mileage, lightbulbs, and gift cards) are not examined in this report.¹⁹

The rates shown in Table 2.4, below, are the standard offer rates that were in effect during the eight-year period spanning 2016 through 2023.

The OPA's monthly summary show the prices that CEPs submit to the OPA, but these prices may not necessarily correspond with prices actually charged to customers, and not all CEPs are included in the OPA's report because not all CEPs submit information to the OPA. OPA cautions: "Prices can change without notice, so we strongly urge you to go to the website or call the company to check rates and fully read terms and conditions before signing up."²⁰

This report encompasses a time of great flux in energy prices. Because of extreme instability in energy markets, especially during 2023, some consumers who locked in rates with CEPs may have been paying lower rates than those available from the standard offer provider. This was an anomalous condition, atypical of historical patterns that have been observed over the past many years. Moreover, such savings are unlikely to persist for consumers who are enrolled in variable rate plans or those whose fixed rate plan converts to a variable rate at a later time. Also, during times of high standard offer rates, consumers – especially those with low and limited incomes -- are more susceptible to exaggerated claims of energy savings (claims that may border on, if not actually constitute, deceptive and misleading sales and marketing practices). The theoretical possibility of lower electricity bills does not always translate into actual savings, especially when viewed over the longer term.

Table 2.4 Standard Offer Rates (Residential/Small Commercial): 2016 – 2023

Standard Offer Rates			
	Central Maine Power	Versant Bangor Hydro District	Versant Maine Public District
2016	\$0.065	\$0.066	\$0.083
2017	\$0.067	\$0.063	\$0.071
2018	\$0.079	\$0.072	\$0.074
2019	\$0.090	\$0.084	\$0.085
2020	\$0.073	\$0.069	\$0.067
2021	\$0.064	\$0.062	\$0.060
2022	\$0.118	\$0.117	\$0.111
2023	\$0.176 / \$0.166	\$0.164 / \$0.154	\$0.149

2.3 CEP Residential Market: Present Day

Although CEPs' actual pricing data for 2024 is not yet available (the prices that CEPs report to the OPA may not necessarily match the prices that any given set of customers are actually paying), standard offer rates are known with certainty. We include them in Table 2.5, below. It is important to place our analysis in the context of today's market: standard offer rates have declined significantly relative to the last year (2023) of our analysis of the prices that CEP charge Maine households. Whether any given CEP's prices actually charged have declined by a

corresponding magnitude is unknown but for those customers locked into contracts with high prices, the overpayment will be greater than for the average CEP customer.

Table 2.5 Standard Offer Rates (Residential/Small Commercial): 2024²¹

IOU	2024 Rate
Central Maine Power	\$0.106363
Versant Power - Bangor Hydro District	\$0.102630
Versant Power - Maine Public District	\$0.112850

The Department of Energy's Energy Information Administration will not publish data about the CEP market during 2024 until the fall of 2025, and so one cannot derive the prices that customers have *actually* been paying to each of Maine's dozen CEPs during 2024 until then. Table 2.6 reproduces the most recent summary posted by the Office of Public Advocate (OPA) of CEPs' *published* prices. These prices presumably would apply to new customers and do not necessarily reflect the prices that customers who signed up with CEPs prior to October 2024 are paying. In every instance, the CEPs' published prices *exceed* the standard offer rates that households would pay for standard offer service. Moreover, customers may be paying even higher prices than those that CEPs report to the OPA.

Table 2.6 CEP Prices as Reported to the OPA (October 2024)²²

CMP Area

Competitive Electricity Provider	Rate for CMP		Early Termination Fee
	Customers (¢/kWh)	Fixed Rate Term	
Residential and Small Commercial Standard Offer	10.636	7/1/24-12/31/24	No
Ambit Energy	14.5	12 Months	No
	15.25	Ultimate Perks 12	
	18.75	Winter Break 12	
	19.25	Winter Break 24	
C.N. Brown Electricity	11.3	12 Months	No
Clearview Energy	12.3 (100% Green)	12 Months GreenChoice	No
	18.19	6 Months	
	15.19	12 Months	
	15.79	24 Months	
Electricity Maine	13.49	12 Months	No
	13.99 (100% Green)	12 Months GreenChoice	
Major Energy	12.19	15 Months	No
	12.39	23 Months	
North American Power	11.89	10 Months	No
	11.99	12 Months	
SmartEnergy	14.5 (100% Green)	12 Months GreenChoice	No
Think Energy	10.9	14 Months	No
	11.9 (100% Green)	12 Months GreenChoice	
	12.9 (100% Green)	36 Months GreenChoice	
Town Square Energy	14.97	12 Months	No
XOOM Energy	11.99	12 Months	No
	12.49	24 Months	
	17.19 (50% Green)	Variable	

Versant (Bangor Hydro) ²³

Competitive Electricity Provider	Rate for Versant (Bangor Hydro)		Early Termination Fee
	Customers (¢/kWh)	Fixed Rate Term	
Residential and Small Commercial Standard Offer	10.263	7/1/24-12/31/24	No
Ambit Energy	14.5	12 Months	No
	15.25	Ultimate Perks 12	
	18.75	Winter Break 12	
	19.25	Winter Break 24	
C.N. Brown Electricity	11.3	12 Months	No
	12.3 (100% Green)	12 Months GreenChoice	
Clearview Energy	14.39	6 Months	No
	12.19	12 Months	
	12.99	24 Months	
Electricity Maine	14.49	12 Months	No
	14.75 (100% Green)	12 Months GreenChoice	
Major Energy	11.99	15 Months	No
	12.25	23 Months	
North American Power	11.89	10 Months	No
	11.99	12 Months	
SmartEnergy	13 (100% Green)	12 Months GreenChoice	No
Think Energy	10.9	13 Months	No
	11.9 (100% Green)	12 Months GreenChoice	
	12.9 (100% Green)	36 Months GreenChoice	
Town Square Energy	14.97	12 Months	No
XOOM Energy	11.99	12 Months	No
	12.49	24 Months	
	16.49 (50% Green)	Variable	

➤ Each and every CEP reports prices to the OPA that *exceed* standard offer rates.

➤ Some customers are likely locked in at even higher prices than those shown on the OPA's summary.

2.4 CEP Residential Market: Corporate Headquarters

Table 2.7, below, shows that, with one exception, the CEPs that serve Maine's households are headquartered out of state. While door-to-door sales would likely rely on Maine employees, this mode of sales is fraught with potential for consumer harm. Other sales modes, such as telemarketing, do not necessarily rely on Maine residents (that is, sales calls could originate from out of state). Therefore, much of the millions of dollars that Maine households pay each year *above and beyond* what they would pay for electricity supply were they to purchase standard offer rates likely flows out of state and therefore out of Maine's economy.²⁴

Table 2.7 Twelve of Thirteen CEPs Are Headquartered Out-of-State

Name	Company Headquarters	Parent Company
Ambit Energy Holdings, LLC	Dallas, Texas	
C. N. Brown Electricity, LLC	South Paris, Maine	
Clearview Electric Inc.	Dallas, Texas	
Electricity Maine, LLC	Houston, Texas	Spark Energy
Energywell LLC	Green Farms, Connecticut	
FairPoint Energy LLC	Norwalk, Connecticut	FairPoint Energy LLC
First Point Power, LLC	Cranston, Rhode Island	
Major Energy Electric Services	Houston, Texas	
Mega Energy of Maine, LLC	Sugar Land, Texas	
North American Power and Gas, LLC	Houston, Texas	
SmartEnergy Holdings, LLC	New York, New York	
Town Square Energy	Gilbert, Arizona	
XOOM Energy Maine, LLC	Huntersville, North Carolina	NRG

3. SOURCES OF INFORMATION

3.1 Sources of Information about the Residential Retail Electric Supply Market

In order to examine whether having the option to purchase from CEPs helps or hurts households, we compared the prices that CEPs *actually charge* to residential customers with the prices the same universe of customers would have paid had they instead purchased standard offer service. (The prices that CEPs report to the OPA and post on their websites do not necessarily correspond with the prices that customers pay because customers may have locked into higher (or lower) prices at some other point in time.)

We examined data corresponding to each CEP separately and computed average CEP prices households actually paid. In order to compute these prices, we considered carefully the relative merits of relying on the data that CEPs report to the Maine Public Utilities Commission (PUC)²⁵ with the data that CEPs report to the U.S. Department of Energy's Energy Information Administration (EIA) in the "Form 861."²⁶ Table 3.1 compares key attributes of these two data sources. We determined that for the purpose of examining the affordability of the CEP market for residential customers the EIA data would be the more relevant of the two data sources:

- The data published by the EIA data is public (the PUC data is considered confidential); and
- EIA data is available separately for residential customers (the PUC groups residential and small commercial customers together).²⁷

Although the EIA data is aggregated to the statewide level, while the PUC data is provided separately for three utilities (CMP, Versant Bangor, and Versant Maine Public District), the CMP region includes the lion's share of the CEP residential market and so statewide aggregation of data does not materially affect our analyses and results.

As Section 5 discusses in more detail, neither EIA nor PUC data provides information disaggregated by zip code or by LIAP account, which means that we are unable to conduct as comprehensive analyses as we have in other states.

Because we analyzed publicly available data, and explain our methodology, our analyses are transparent, and our calculations can be replicated. We rely on data that CEPs self-report to the Department of Energy. Our report includes only public information.

Table 3.1 Sources of Information for CEP Prices: Comparison of Attributes of Data CEPs Submit to PUC with Data CEPs Submit to U.S. DOE-EIA²⁸

MPUC	US DOE-EIA
Confidential	Public
Residential is aggregated with small commercial	Residential-only is available
Separately by CMP, Versant Bangor, Versant Maine Public District	Statewide
Annual; 2023 most recent	Annual; 2023 most recent
Data at the zip code level unavailable	Data at the zip code level unavailable
Data separately for low-income accounts unavailable	Data separately for low-income accounts unavailable

3.2 CEP Residential Market: Prices

Table 3.2 shows the average price each CEP charged residential customers separately for each of the eight years spanning 2016 through 2023. The average price paid to CEPs is calculated by dividing the revenues each CEP reports to EIA by the amount of electricity provided (also reported by each CEP). The average prices highlighted in green indicate CEPs that charged less (in aggregate) than the standard offer rate (in grey) for that year. It is notable that the five CEPs with average prices below the standard offer rate in 2023 served only 23 percent of the CEP customers. This means 77 percent of CEP customers paid more than the standard offer rate.

➤ Public data shows that 77 percent of residential CEP customers paid more for electricity supply than if they had purchased standard offer service.

Table 3.2 Average Prices Paid by Households to CEPs: 2016 - 2023²⁹

CEP	2016	2017	2018	2019	2020	2021	2022	2023
Standard Offer	\$0.065	\$0.067	\$0.079	\$0.090	\$0.073	\$0.064	\$0.118	\$0.170
Agera Energy LLC	\$0.080	\$0.078	\$0.088	\$0.088				
Ambit Energy Holdings, LLC	\$0.071	\$0.076	\$0.081	\$0.099	\$0.082	\$0.071	\$0.124	\$0.173
C. N. Brown Electricity, LLC	\$0.096	\$0.088	\$0.087	\$0.084	\$0.080	\$0.074	\$0.097	\$0.134
Clearview Electric Inc.	\$0.112	\$0.109	\$0.114	\$0.174	\$0.167	\$0.171	\$0.192	\$0.296
Constellation Energy Services, Inc.	\$0.074	\$0.072						
Constellation NewEnergy, Inc		\$0.063	\$0.070	\$0.067	\$0.068	\$0.067	\$0.072	
Electricity Maine, LLC	\$0.104	\$0.099	\$0.106	\$0.121	\$0.121	\$0.121	\$0.140	\$0.227
Energywell LLC							\$0.133	\$0.150
ENGIE Retail, LLC	\$0.085	\$0.066	\$0.090	\$0.095	\$0.091	\$0.092	\$0.138	
FairPoint Energy LLC	\$0.092	\$0.085	\$0.112	\$0.143	\$0.138	\$0.139	\$0.157	\$0.212
First Point Power, LLC	\$0.078	\$0.078	\$0.085	\$0.084	\$0.082	\$0.075	\$0.084	\$0.106
Major Energy Electric Services							\$0.200	\$0.163
Mega Energy of Maine, LLC	\$0.096	\$0.109	\$0.131	\$0.133		\$0.134	\$0.163	\$0.193
North American Power and Gas, LLC	\$0.103	\$0.110	\$0.107	\$0.120	\$0.119	\$0.123	\$0.145	\$0.173
SmartEnergy Holdings, LLC					\$0.073	\$0.095	\$0.162	\$0.181
Town Square Energy			\$0.101	\$0.106	\$0.106	\$0.130	\$0.179	\$0.193
Union Atlantic Electricity			\$0.100					
XOOM Energy Maine, LLC	\$0.088	\$0.092	\$0.110	\$0.099	\$0.111	\$0.106	\$0.164	\$0.136

Table 3.3 depicts the relative market shares of the twelve CEPs in Maine that submitted data to the EIA.³⁰ Two CEPs (Electricity Maine, LLC and SmartEnergy Holdings, LLC) together serve approximately 60 percent of the residential customers who purchase supply from CEPs and generate approximately 60 percent of the revenue in the residential CEP electric retail supply market.

Table 3.3 CEPs' Shares of the Residential Market: 2023

CEP	Number of Customers	Market Share by		
		Customers	Revenue	kWh
Ambit Energy Holdings, LLC	4,202	6.5%	6.8%	7.3%
C. N. Brown Electricity, LLC	5,005	7.7%	6.7%	9.3%
Clearview Electric Inc.	861	1.3%	1.5%	0.9%
Electricity Maine, LLC	19,004	29.3%	33.6%	27.4%
Energywell LLC	2,489	3.8%	3.4%	4.2%
FairPoint Energy LLC	3,735	5.8%	5.0%	4.4%
First Point Power, LLC	819	1.3%	0.6%	1.1%
Major Energy Electric Services	3,498	5.4%	5.6%	6.4%
Mega Energy of Maine, LLC	36	0.1%	0.0%	0.0%
North American Power and Gas, LLC	2,108	3.3%	3.1%	3.3%
SmartEnergy Holdings, LLC	18,331	28.3%	25.5%	26.0%
Town Square Energy	1,600	2.5%	2.9%	2.8%
XOOM Energy Maine, LLC	3,167	4.9%	5.2%	7.0%

4 METHODOLOGY AND RESULTS

4.1 Methodology

Using the publicly available data discussed in Section 3, we compared the prices charged by CEPs to residential customers with the prices these customers would have paid with standard offer service. By way of illustration, based on information the CEPs submit, EIA reports that during 2023, Electricity Maine, LLC (Electricity Maine)³¹ supplied 19,004 households in Maine with a total of 112,919 mWh of electricity. (Appendix 4.1 reproduces an excerpt from EIA's Form 861 summary, which provides the source for our calculations regarding CEPs' prices and market shares.) As Table 3.3, above shows, this represented 29 percent of all households purchasing supply from CEPs during 2023. EIA also reports that Electricity Maine generated \$25.6 million in revenues from Maine's households, which translates into \$1,346 per household per year for electricity supply. Dividing Electricity Maine's total residential revenues by total kWh supplied yields an average per-kWh price of \$0.227.

During the same year, the average standard offer rate was \$0.170 per kWh. Multiplying the standard offer rate by the kWh supplied to this group of customers corresponds with \$19.2 million in total revenues, or \$1,010 per household per year. The difference between the two amounts – \$1,346 and \$1,010 -- is the per-household annual overpayment for each Electricity Maine residential customer: on average, each residential customer of Electricity Maine paid \$336 more in 2023 for electricity supply than they would have had they purchased standard offer service.

As another example, Smart Energy, which sells electricity supply to 28 percent of all households purchasing supply from CEPs during 2023 (see Table 3.3, above), generated \$19.4 million by providing 18,331 customers with 106,998 mWh of electricity. This translates into an average price of \$0.181 per kWh, compared to \$0.170 per kWh under standard service. This amounts to an overpayment of \$1.2 million by Smart Energy's 18,331 customers, or \$66 per household per year.

➤ Our calculations and methodology are transparent and based on publicly available information.

4.2 Impact of Residential Retail Electric Supply Market on Residential Customers

In order to compute the aggregate customer overpayment each year, we multiplied the electricity supplied by each CEP (provided by EIA in mWh) by the standard offer rate in effect at that time,

and calculated the difference between what each group of CEP customers paid (provided by EIA in thousands of dollars) versus what they would have paid on standard offer service.

Table 4.1, below, shows that in each of the eight years we analyzed, the average CEP price exceeded the average standard offer rate, and also shows that in aggregate, Maine's residential customers paid \$135 million more for electricity supply – an essential item – than they would have paid had they purchased standard offer service.³² These dollars were then not available for households to purchase other goods and services. CEPs' high prices clearly make electricity less affordable, especially for those households struggling to make ends meet.

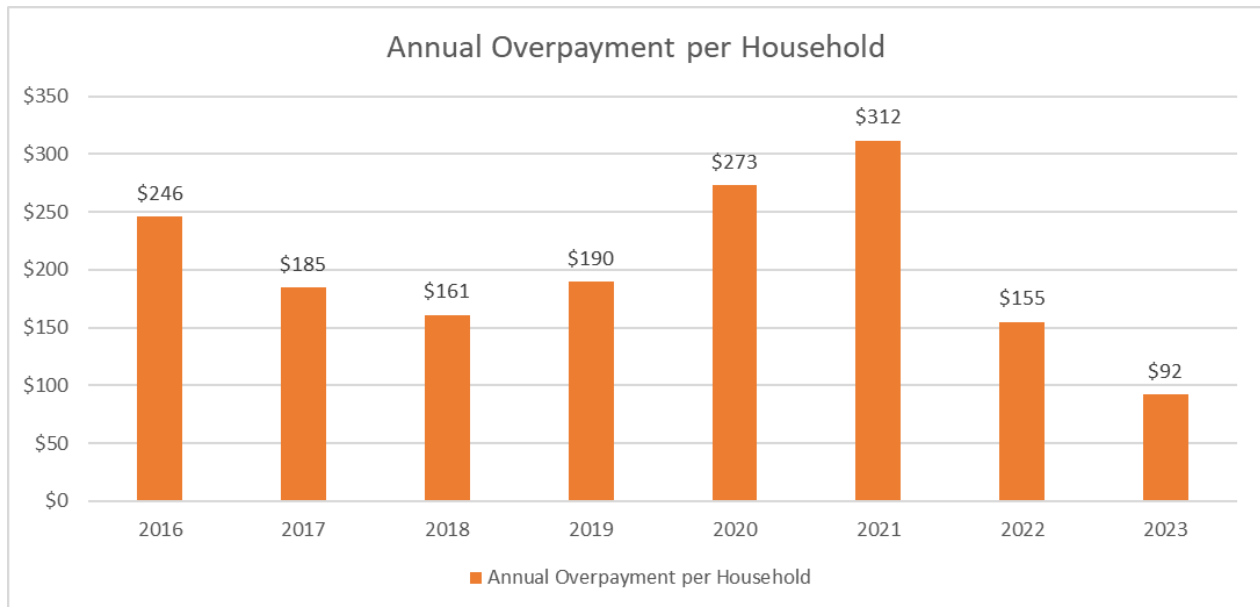
Table 4.1 Residential Payments to CEPs in Excess of Standard Offer: 2016 - 2023

Residential Payments in Excess of Standard Offer			
Year	Average CEP Price	Standard Offer Rate	Overpayment
2016	\$0.101	\$0.065	\$28,885,648
2017	\$0.095	\$0.067	\$20,865,330
2018	\$0.104	\$0.079	\$17,062,249
2019	\$0.116	\$0.090	\$14,454,702
2020	\$0.112	\$0.073	\$18,481,864
2021	\$0.109	\$0.064	\$20,060,265
2022	\$0.141	\$0.118	\$9,616,242
2023	\$0.185	\$0.170	\$5,953,587
2016-2023 Total Overpayment			\$135,379,887

➤ Since 2016, CEPs have charged Maine's households prices \$135 million more for electricity than standard offer rates

Figure 4.1, below, shows the average per-household annual overpayment during the eight years spanning 2016 through 2023. Year after year, on average, the CEP market leads to significant consumer loss.

Figure 4.1 Annual Per-Household Consumer Losses Persist: 2016 through 2023



4.3 Residential Retail Electric Supply Market and Achieving Climate Goals

4.3.1 Introduction

There is no clear evidence that products CEPs market as “green” contribute any more to the achievement of Maine’s climate goals than does standard offer service.³³ The same Renewable Portfolio Standard (RPS) requirements apply to all supply in Maine – whether sold by a CEP or as standard offer service. A CEP pitching a “green” product generally does not provide the basis for this labeling. It is not clear, for instance, whether it is asserting that its product exceeds the minimum RPS requirement or merely complies with it. Further, if a CEP is asserting that it exceeds the minimum requirement, the basis for such a claim may be inaccurate or misleading, for instance regarding whether their incremental purchases are compliant with Maine RPS certification requirements. As a result, a CEP claim that it is offering a “green” product could be misleading.

The PUC website describes Maine’s RPS, which requires increasing reliance on renewable resources:

Maine Statute (M.R.S. 35-A §3210) requires 30% of Maine load be satisfied by existing renewable electricity generation (Class II) and 10% of Maine load in 2017 and beyond be satisfied by new renewable resources (Class I), and increasing amounts of Class IA and thermal renewable energy credits (TRECs)

starting 2020 and 2021, respectively. By 2030, 40% of Maine load must be satisfied by Class IA resources and 4% by TRECs.³⁴

The pricing and marketing of so-called “green” products are not transparent and so even those consumers who are willing and able to pay more to purchase especially climate-friendly products lack access to easy-to-compare information about ways to spend their “green dollars.” For example, some CEPs charge premiums as high as five cents per kWh for their green products³⁵ although the underlying Renewable Energy Certificates (RECs)³⁶ the CEPs purchase may cost them as little as a fifth of a penny per kWh. Moreover, the RECs purchased by CEPs typically are associated with out-of-state renewable energy such as wind farms in Texas that have already been built and do not contribute toward the achievement of Maine's climate goals.

Pursuing green electricity above and beyond (i.e., more quickly than) the state's renewable portfolio standard timetable depends in part on consumers' ability and willingness to pay a “premium” for “greener” electricity than that already mandated. For many households, and especially for households with low and limited incomes, disposable income is finite, and monies spent on CEP products in excess of monies that would be spent for standard offer service are then not available for other uses (such as housing, transportation, food, childcare, and other energy products). Therefore, if and when CEPs pitch their products as green, it is important that the “shade of greenness” be transparent to the potential consumer, both in the premium (or mark-up) customers are being asked to pay for that greenness as well as the characteristics of the greenness (the fuel source and the emissions) so that consumers can make informed (efficient) purchasing decisions.

An important context for assessing CEPs' contribution to the achievement of Maine's climate goals is consideration of alternative ways that consumers could allocate household income to minimize their carbon footprint:

- Would alternative uses of household dollars do more, less, or the same to achieve Maine's climate goals? ³⁷
- Would alternative uses of household dollars result in lower overall energy requirements in a home, and thereby provide a recurring financial (i.e., affordability) benefit to households (as well as contributing to Maine's climate goals)?

Maine's *Green Power* Program is one purchasing option and the adoption of energy efficiency measures is another, and, of course, those with the financial resources to do so, can pursue both. These are both useful benchmarks against which to compare CEPs' green products.

4.3.2 Maine Green Power³⁸

As the *Maine Green Power* website explains, the program: “allows Maine electric customers to choose clean, local renewable energy for their home or business. The program allows Mainers to match their electric use with green power produced in Maine.”³⁹ This program provides a benchmark against which to compare the prices and fuel sources of CEP products. Both the prices and the fuel sources in the *Green Power* program are subject to PUC oversight. By contrast, CEPs may price their green products as they choose, and, other than meeting the minimum RPS requirements, there are no guidelines regarding the fuel mix of their voluntary green products.⁴⁰

Green Power Prices:

Customers can purchase:

- Half Block (250 kWh) purchase per month: \$4.95 per ½ Block (\$0.0198/kWh)
- One Block (500 kWh) purchase per month: \$8.95 per Block (\$0.0179/kWh)
- Ten Blocks (5,000 kWh) or more purchase per month: \$6.45 per Block (\$0.0129/kWh).⁴¹

Green Power Fuel Sources:

The Maine Green Power Program matches the purchase amount with Renewable Energy Certificates, or RECs, that are produced in Maine. In other words, the RECs that consumers support through the Green Power Program are “pre-qualified” – they are subject to regulatory oversight, are “homegrown” and so necessarily contribute to Maine’s climate goals, as this excerpt from the web site entitled “How do I know that I’m getting what I pay for?” shows:

The Maine Public Utilities Commission provides oversight to ensure that only eligible Maine renewable energy resources are used to generate energy for *Maine Green Power*. In addition, *Maine Green Power* will issue annual reports that outline the mix of renewable resources your household or business purchased through *Maine Green Power*.⁴²

4.3.3 Adoption of Energy Efficiency Measures

Households can also allocate part of their budgets to adopt energy efficiency measures, which will permanently reduce demand for fossil fuel sources and enhance ongoing affordability. Households could use the approximate *millions of dollars* per year that they now spend as a result of purchasing higher-priced CEP products instead for energy efficient windows, energy-efficient appliances, heat pumps, and other energy-saving measures. Unlike the dollars spent in premiums for each kWh purchased from a CEP, dollars spent on these measures would lower household energy demand year after year

and so help consumers, especially those struggling to make ends meet, pay their fuel bills.⁴³

The PUC bears the burden of verifying the information that CEPs submit in their annual reports regarding their green, renewable resources. From the consumer's perspective, it is hard to verify the "green-ness" of the various CEP products and the "premium" that each CEP charges for its green products.

4.3.4 RECs and Maine's Climate Goals

CEPs' voluntary "green" products may rely on out-of-region RECs. CEPs can purchase RECs, which may be associated, for example, with Texas wind farms, for under \$4 per MWh, which works out to \$0.004 per kWh.⁴⁴ The green mark-up that CEPs charge to consumers, however, can be more than ten times that amount. Moreover, the sources and types of renewable energy associated with CEPs' products are not verified. OPA explains with reference to its chart that summarizes CEPs' prices and products:

Products with a higher percentage of electricity generated from renewable resources are noted with a (xx%) after the price showing the percentage of renewable energy included in the product, as provided to us by the supplier. The OPA cannot verify the source or type of renewable energy for any amount, above the required minimum, voluntarily added by the supplier.⁴⁵

It is important to consider the source of the "green-ness." Presently, consumers cannot readily discern the extent to which CEPs' voluntary green products contribute to the achievement of Maine's climate goals. Only one of Maine's residential CEPs appears as "Green-E" certified in Maine, although its Green-E certified product does not appear in the OPA's summary of CEPs' products.⁴⁶

An explanation of a Green-e product follows:

Green-e® certified renewable energy and carbon offset products meet the most stringent environmental and consumer protection standards in North America. You can search below for certified green power and renewable energy certificate programs for your home or business, and carbon offset products to offset your emissions from activities like driving and flying.⁴⁷

➤ CEP claims of "green" products may be misleading; also, households may be able to contribute more efficiently to Maine's climate goals with other purchasing decisions.

5 IMPACT OF CEP-SERVED MARKET ON LOW-INCOME HOUSEHOLDS AND LOW-INCOME COMMUNITIES

5.1 Introduction

The majority of our report and analyses address the CEP market's impact on the affordability of electricity supply for residential customers as measured at the CEP-specific level and at the statewide level. Based on our work in other states, we recognize that households in Maine may experience the CEP market differently depending on their income and where they live. Indeed, as we discuss below, the pattern of differing experiences between low-income and non-low-income households exists in Maine as well. However, we lack access to the category of data we have examined in other jurisdictions that would enable us to assess whether participation levels and prices differ among Maine's various communities and among Maine's dozen CEPs. We discuss this issue in more detail below as well.

5.2 Differing participation rates and prices charged: LIAP households versus non-LIAP households

The CEP market harms low-income customers in two significant ways: (1) low-income customers are more likely to participate in the over-priced CEP-served market than are other customers; and (2) CEPs charge low-income customers a higher price for electricity than they do other customers.

The experience of LIAP customers in Versant's BHD territory provides compelling evidence of the disproportionate harm imposed on low-income customers who purchase electricity from CEPs.⁴⁸

- In 2024, BHD customers receiving SO service are charged \$0.1026 per kWh of supply. On average, CEPs charge more than five cents more per kWh to BHD customers than standard offer rates.
- The average price that LIAP customers pay for CEPs' supply in the Versant BHD area is \$0.16117 per kWh. In comparison, the average price that non-LIAP customers pay for CEPs' supply is slightly less at \$0.15916 per kWh.⁴⁹
- As of September 30, 2024, of the 7,346 LIAP customers residing in the BHD area, 892 customers purchase electricity supply from CEPs, which means that the participation (or penetration) rate of low-income customers is 12.14 percent.
- In sharp contrast, for the same time period, of the 102,154 non-LIAP customers residing in the BHD territory, 6,179 purchase electricity supply from CEPs, which means that the participation rate of non-LIAP customers is only 6.05 percent.⁵⁰

- The participation rate of LIAP customers is twice that of non-LIAP customers – low-income customers are twice as likely to purchase electricity supply from CEPs than are other residential customers and they pay on average almost six cents per kWh *more* than if they purchased standard offer service.

The experience of LIAP customers in CMP's territory during 2024 also provides compelling evidence of the disproportionate harm imposed on low-income customers who purchase electricity from CEPs.

- In 2024, CMP customers receiving SO service are charged \$0.1063 per kWh of supply. On average, CEPs charge almost five cents more per kWh to households in the CMP area than standard offer rates.
- LIAP participants are almost 50 percent more likely to purchase from CEPs than CMP's other residential customers: 12.79 percent of LIAP customers purchase from CEPs in comparison with 8.81 percent by other residential customers.⁵¹
- CEPs charge LIAP customers slightly more on average than they do non-LIAP customers: \$0.1502 per kWh in comparison with \$0.1484 (a low-income household purchasing 550 kWh per month would pay approximately twelve dollars more per year above and beyond the high prices that other households pay).⁵²
- Low-income customers are substantially more likely to purchase electricity supply from CEPs than are other residential customers and they pay on average almost five cents per kWh *more* than if they purchased standard offer service.

This pattern of disproportionate harm for low-income households has persisted. In our January 2023 report, we included this information, which shows that then low-income households in CMP's territory and in Versant's BHD territory are more likely to purchase electric supply from CEPs than are other households:

Low-income households in CMP's territory are more likely to purchase electric supply from CEPs than are other households in CMP's territory: 12.72 percent of low-income households purchase from CEPs while only 8.76 percent of non-low-income households purchase from CEPs. Low-income households, then, are 45 percent more likely to purchase CEP products than are other households. This pattern is consistent with those experienced in other states, discussed above. Also, while other households paid \$0.179070 per kWh, low-income household paid an average of \$0.183113 per kWh, about 2 percent more.

The same pattern holds in Versant's Bangor territory, where 8.27 percent of low-income households purchase electricity from CEPs, while only 6.20 percent of other households do.⁵³

Differing levels of participation in the residential retail electric supply market exist in other jurisdictions. For example, in Massachusetts, based on the most recent public data available, 24 percent of low-income households participate and 14 percent of non-low-

income households buy from third-party suppliers.⁵⁴ The substantial differential between the participation rate by low-income and all other households persisted in each of the five years studied for the Massachusetts Attorney General's Office.⁵⁵

➤ High CEP prices combined with high participation levels make CEPs' electricity supply unaffordable for low-income households.

5.3 Areas for further analysis

Our analysis demonstrates widespread consumer harm, as evidenced by the \$135 million in overpayments for an essential item – electricity supply. We have also reviewed evidence that the CEP-served market disproportionately harms LIAP customers. This information may help to inform the Council's recommended policies for ensuring that the CEP-served market does not jeopardize the affordability of electricity for Maine's households, especially for those struggling the most to make ends meet.

More detailed analyses could be undertaken (similar to those we undertook in Connecticut and Massachusetts) if additional information were available. Specifically the information sought in the suggested question of the Office of Public Advocate, which is reproduced in Appendix 5.1, would allow an examination of participation levels and prices paid on a community basis – that is:

- Participation Levels: Are households in low-income communities more likely to purchase supply from CEPs than are households located in communities with relatively higher median incomes?
- Prices: Do CEPs charge higher prices to residents of low-income communities than they charge to residents with relatively higher incomes?

On behalf of consumer advocate agencies in other states, we examined participation levels and prices paid at the zip code level. With actual billing data (based on bills rendered by utilities on behalf of CEPs aggregated to the zip code level) and using publicly available data from the United States Census Bureau, we were able to examine participation levels and prices disaggregated to the community level. With this detailed information, we determined that, for example, approximately 33.9% of the residents of zip code 02121 (Dorchester, with a zip code median income of \$40,732) purchased from CEPs. By comparison, only 6.3% of the residents of zip code 02114 (Beacon Hill, with a median income in the zip code of \$118,125) purchased supply from CEPs.⁵⁶

Another area for future consideration is the impact of unpaid CEP bills on utility ratepayers. In some states, when customers cannot pay their bills (because, for example, of CEPs' high prices),

the unpaid bills become “uncollectibles” which, in turn, utilities recover as an expense in all ratepayers’ utility bills. It appears that this is not as much of a concern in Maine. Chapter 322 of the Commission’s rules provides the following on past due charges owed to a CEP:

Past due charges owed by a customer to a prior competitive electricity provider shall be collected by the transmission and distribution utility for one bill following issuance of the final bill for generation service. At the end of this collection period, the transmission and distribution utility shall inform a competitive electricity provider of a customer's past due charges and shall no longer be responsible for collection. This provision does not apply to past due charges associated with standard offer service.

As we understand this provision, it would be up to the CEP to cancel service for nonpayment (which would result in the customer returning to SO service), and then the utility would attempt to collect past due charges for one billing period. After that, the utility informs the CEP how much it is owed and it is up to the CEP to collect the debt. One could examine the extent to which high CEP prices lead to defaults on utility bills.

Appendix 1.1

Experience and Qualifications of Timothy E. Howington

Timothy E. Howington is an analyst with over twenty years of experience in a variety of disciplines, including economic development, utility regulation, and geospatial modelling. From 2001 to 2003 Mr. Howington created location cost comparisons, evaluated tax structures and incentive programs for businesses, and contributed to economic impacts analyses at Massachusetts Development Finance Agency, Massachusetts's quasi-public development authority.

Since 2003, Mr. Howington has contributed to numerous telecommunications and energy regulatory proceedings at the state and federal level addressing topics of concern to utility consumers, including market concentration, differentials in product availability and service quality, and pricing. Mr. Howington has also developed spatially-aware and cartographic solutions for the insurance, reinsurance, agriculture, and supply chain industries.

Mr. Howington earned a B.A. in Near Eastern Languages and Civilizations from the University of Chicago, an M.A. in Economics from Boston University, and an M.S. in Geo-Information Science from Salem State University.

Appendix 1.2

Experience and Qualifications of Susan M. Baldwin

Susan M. Baldwin has forty-six years of experience in public policy, which includes five years analyzing solar energy and energy efficiency for local, state and regional agencies, one year analyzing low-income issues for the budget office of a state welfare agency, and, most recently, 40 years analyzing the economics and regulation of the telecommunications and energy industries. She served as the Director of the Telecommunications Division for the Massachusetts Department of Public Utilities (which was subsequently reorganized), as a Senior Vice President for a consulting firm, and, since 2001, has been an independent consultant.

Since 2013, in addition to her ongoing contributions to state and federal telecommunications policy, Ms. Baldwin has assisted consumer advocate agencies with the customer service of electric and gas utilities and with in-depth analyses of residential and small business retail energy supply markets. In her capacity as an independent consultant, Ms. Baldwin sponsors expert testimony and reports submitted in state and federal regulatory proceedings, contributes to policymaking by state legislatures, and writes detailed reports on telecommunications and energy policy. She has testified before 24 state public utility commissions in more than 75 regulatory proceedings as well as before five state legislative committees. She has submitted expert reports in four state taxation proceedings and has contributed to dozens of comments and declarations filed in Federal Communications Commission proceedings.

Ms. Baldwin earned her Master of Economics from Boston University, her Master of Public Policy from the Harvard Kennedy School, and her Bachelor of Arts degree in Mathematics and English from Wellesley College.

Appendix 2.1

Overview of Customer Classes

The demarcations among these three classes varies slightly among the investor-owned utilities (IOUs) as Table 2.1, below, shows. In all three instances, the IOUs include residential customers and small commercial customers in the same customer class.

Table 2.1 Class Definitions¹

Utility	Residential and Small Commercial	Medium Commercial	Large Commercial
Versant Power - Bangor Hydro District	<25 kW	25-500 kW	>500 kW
Central Maine Power Company	<20 kW	20-400 kW	>400 kW
Versant Power - Maine Public District	<50 kW	50-500 kW	>500 kW

Most customers (98.5 percent) are in the residential/small commercial class, as Table 2.2, below shows. However, according to the U.S. Department of Energy's Energy Information Administration classifications, residential customers represent only 8 percent of total electricity supplied by CEPs. By comparison, commercial customers represent 68 percent and industrial customers represent 25 percent of total electricity demand that CEPs supply.²

Including all suppliers (IOUs, cooperatives, municipal utilities and CEPs), residential customers represent 33 percent of total electricity usage in Maine. By comparison, commercial customers represent 39 percent and industrial customers represent 28 percent of total electricity demand.³

Table 2.2 Total Number of Customers by Class⁴

Total Customers	Residential and Small Commercial	Medium Commercial	Large Commercial
811,650	799,706	11,502	442

¹ Standard Offer Migration Stats through Sep 2024 [Migration Statistics | MPUC \(maine.gov\)](https://www.maine.gov/mpuc/regulated-utilities/electricity/choosing-supplier/migration-statistics), tab "Class Definitions."

² U.S. Energy Information Administration, EIA Form 861 data, table "Sales_Ult_Cust_2023". Megawatt hours are used to compute the percentages.

³ U.S. Energy Information Administration, EIA Form 861 data, table "Sales_Ult_Cust_2023". Megawatt hours are used to compute the percentages.

⁴ PUC Migration Statistics, September 2024, <https://www.maine.gov/mpuc/regulated-utilities/electricity/choosing-supplier/migration-statistics>, tab entitled "Customers," site checked October 23, 2024.

2.2 CEP Residential Market: Scale

Table 2.3, below shows that large commercial customers are the most likely to purchase electricity supply from CEPs and residential/small commercial customers are the least likely to be served by CEPs. As of September 2024, 11 percent of residential/small commercial customers purchased electricity from CEPs, in contrast with the 85.5 percent of large commercial customers who do so.

Table 2.3 Percentage of Customers Enrolled with CEPs by Customer Class: Statewide⁵

Residential and Small Commercial	Medium Commercial	Large Commercial	All Customers
11.0%	55.6%	85.5%	11.7%

⁵ Id.

Is Maine's CEP-Served Residential Electric Supply Market Affordable?

Appendix 4.1

Residential CEP Excerpt from October 10 2024 EIA Form 861 Summary

Utility Name	State	Ownership	RESIDENTIAL		
			Revenues	Sales	Customers
			Thousand Dollars	Megawatthours	Count
Algonquin Energy Services	ME	Retail Power Marketer	0.0	0	0
Ambit Energy Holdings, LLC	ME	Retail Power Marketer	5,188.2	30,046	4,202
American PowerNet	ME	Retail Power Marketer	0.0	0	0
BP Energy Retail LLC	ME	Retail Power Marketer	0.0	0	0
C. N. Brown Electricity, LLC	ME	Retail Power Marketer	5,116.0	38,279	5,005
Calpine Energy Solutions, LLC	ME	Retail Power Marketer	0.0	0	0
Calpine Power America LLC	ME	Retail Power Marketer	.	.	.
Champion Energy Services	ME	Retail Power Marketer	0.0	0	0
Clearview Electric Inc.	ME	Retail Power Marketer	1,105.6	3,734	861
Constellation NewEnergy, Inc	ME	Retail Power Marketer	0.0	0	0
Direct Energy Business	ME	Retail Power Marketer	0.0	0	0
Electricity Maine, LLC	ME	Retail Power Marketer	25,578.0	112,919	19,004
Energywell LLC	ME	Retail Power Marketer	2,613.9	17,393	2,489
ENGIE Resources LLC	ME	Retail Power Marketer	0.0	0	0
FairPoint Energy LLC	ME	Retail Power Marketer	3,838.1	18,070	3,735
First Point Power, LLC	ME	Retail Power Marketer	490.4	4,618	819
Freedom Energy	ME	Retail Power Marketer	0.0	0	0
Major Energy Electric Services	ME	Retail Power Marketer	4,260.0	26,186	3,498
Mega Energy of Maine, LLC	ME	Retail Power Marketer	2.9	15	36
Messer Energy Services, Inc.	ME	Retail Power Marketer	0.0	0	0
MP2 Energy LLC	ME	Retail Power Marketer	0.0	0	0
New Brunswick Power Generation Corp.	ME	Retail Power Marketer	.	.	.
NextEra Energy Services, LLC	ME	Retail Power Marketer	0.0	0	0
North American Power and Gas, LLC	ME	Retail Power Marketer	2,334.0	13,516	2,108
SmartEnergy Holdings, LLC	ME	Retail Power Marketer	19,401.0	106,998	18,331
Texas Retail Energy, LLC	ME	Retail Power Marketer	0.0	0	0
Town Square Energy	ME	Retail Power Marketer	2,195.8	11,382	1,600
XOOM Energy Maine, LLC	ME	Retail Power Marketer	3,935.3	28,910	3,167

Source: U.S. Department of Energy, Energy Information Administration (<https://www.eia.gov/electricity/data/eia861/>, 2023 final data, Workbook "Sales_Ult_Cust_2023", Tab "States.")

Appendix 5.1

**STATE OF MAINE
PUBLIC UTILITIES COMMISSION**

**OFFICE OF THE PUBLIC
ADVOCATE**

**RE: Request for Commission
Investigation into Potential
Overcharging by Competitive
Electricity Providers**

Docket No. 2024-00____

PETITION

August 13, 2024

Pursuant to 35-A M.R.S. § 1303(2) and § 3203(13-A), the Office of the Public Advocate (OPA) respectfully requests that the Commission open an investigation into potential overcharging by competitive electricity providers (CEPs) in providing generation service to residential customers in Maine. The OPA requests that the Commission investigate not only the price of service above the standard offer rate charged to all residential customers, but also the amount CEPs overcharged Maine's low-income residential consumers.

Section 3203(13-A) provides:

13-A. Investigation. The commission may investigate any matter relating to the provision of service by a competitive electricity provider or the actions of a 3rd-party sales agent undertaking the retail sale or marketing of electricity on behalf of a provider pursuant to this chapter. In conducting an investigation under this subsection, the commission shall use the procedures established under section 1303, subsection 2.

Section 1303, subsection 2 provides:

2. Formal investigation. If after the summary investigation, the commission is satisfied that sufficient grounds exist to warrant a formal public hearing as to the matters investigated, it shall give the interested public utility written notice of the matter under investigation. Seven days after the commission has given notice, it may set a time and place for a public hearing. The hearing shall be held in accordance with section 1304.

As the Commission is aware, both the Commission and OPA have previously studied the impact of CEP pricing on residential customers. The previous work performed by the OPA demonstrated that over the period 2016 - 2022, Maine consumers who purchased electricity from CEPs paid over \$80 million more than what they would have paid for the same amount of electricity from the default standard offer service procured by the Commission. In 2018, the Commission produced its own report

comparing CEP pricing with standard offer pricing. *Maine Public Utilities Commission, Report on Competitive Electricity Provider and Standard Offer Price Comparisons*, Presented to the Joint Standing Committee on Energy, Utilities and Technology (Feb. 15, 2018). The Commission's analysis showed that over the three-year period 2014 through 2016, customers that received electricity supply from a CEP paid approximately \$77.7 million more than they would have paid for standard offer service. Of note, the Commission found that customers served by CEPs paid approximately 56% more than they would have paid for standard offer service in 2016; 60% more in 2015; and 12% more in 2014. Also as found by the Commission, on a dollar per customer basis, customers served by CEPs paid approximately \$245 more than they would have paid for standard offer service in 2016; \$278 more in 2015; and \$67 more in 2014.

The price comparisons developed by the Commission and the OPA should raise major concerns regarding what appears to be a pattern of consistent overcharging by CEPs. The OPA has particular concerns as to how this overcharging is impacting low-income residential customers who can least afford to be burdened with such overcharging. Although the Commission cannot regulate CEP rates, nothing prevents the Commission from updating its prior investigation comparing the prices paid by customers receiving CEP service to the prices that such customers would have paid under applicable standard offer rates. In addition, the Commission could investigate whether CEP rates vary among different types of customers, such as by income level. Section 3203(13-A) authorizes the Commission to investigate any matter related to CEP service. It cannot be disputed that price is a key component of the CEP service that is within the Commission's authority to investigate.

The issue of CEP overcharging is not unique to Maine and has been examined in neighboring jurisdictions. On February 10, 2023, the Connecticut Public Utilities Regulatory Authority's Office of Education, Outreach, and Enforcement submitted a report regarding the rate charged by retail suppliers to residential customers from January 2017 through December 2021. The report, attached hereto as Attachment 1, concludes

that for this five-year period suppliers' prices were overpriced and harmful to residential consumers. The data showed that the majority (approximately two-thirds) of residential customers contracting with a supplier during the five years in question paid more to receive generation from a competitive supplier than they would have paid for default service from their electric distribution company. Overpayment occurred during all five years and averaged approximately \$30.2 million per year, or \$151 million over the five-year period. This study also showed that low-income residents were particularly harmed by competitive supplier rates.

In April 2024, the Massachusetts Attorney General's Office produced a report which updated prior reports on the residential electric supply market in Massachusetts. A copy of this report is provided as Attachment 2 to this filing. This report states that since the Massachusetts Attorney General started reporting on this market in 2018, Massachusetts consumers have experienced \$577.6 million in losses when compared basic service. This 2024 update demonstrates that individual residential consumers suffer large financial losses by directly signing contracts for their electric supply with individual electric suppliers. The updates also finds that Massachusetts low-income consumers and people of color continue to suffer a disproportionate amount of consumer harm. The OPA believes that the Commission should conduct an investigation to determine if the Connecticut and Massachusetts study results hold true in Maine.

The Commission recently denied the OPA access to information necessary for the OPA to conduct the type of price comparison proposed in this request. *See Office of the Public Advocate, Request for Access to Competitive Electricity Provider Data*, Docket No. 2024-00090, Order July 16, 2024. In that case, the Commission ruled that OPA did not have authority to investigate the reasonableness of CEP rates.⁶ Therefore, the OPA

⁶In its Order, the Commission suggests that somehow the Legislature does not approve of investigating CEP pricing because the EUT committee eliminated a provision from LD 2163 (131st Legis. 2023) that would have granted the OPA direct access to confidential CEP data. This is a misreading of the legislative history. Rather, the OPA itself proposed that this language be stricken from the bill, as the OPA expected

now requests that the Commission open its own investigation for that purpose. Such an investigation is consistent with what the Commission has characterized as its broad authority to investigate the retail, competitive sale of electricity in Maine.⁷

The OPA notes that the Electric Ratepayer Advisory Council (ERAC) supports this request for a Commission investigation into CEP rates. The duties of ERAC are set forth in 35-A M.R.S. § 1714 and include identifying methods to:

- (1) improve education and outreach efforts regarding the retail electricity supply market; and
- (2) improve the affordability of electricity.

For the foregoing reasons, the OPA respectfully requests that the Commission open an investigation into the rates charged by CEPs.

Respectfully submitted,

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/s/ Richard P. Hevey

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that it would continue to be able to access CEP data based on Commission order approving such access, as it had done in prior cases.

Moreover, it is well established that because there are so many plausible explanations for why specific language was not adopted by a Legislature, courts should not attempt to rely on such a development in interpreting statutes. “Courts should be cautious, then, when using evidence of either the rejection or adoption of a proposed change to interpret legislative intent.” 2A Sutherland Statutory Construction § 48:18 (7th ed.). The disappearance of a provision during a legislative journey to enactment does not establish the contrary to be law, especially when it appears the provision would have amounted to surplusage. *Mercy Hospital v. Rate Setting Commission*, 381 Mass. 34, 407 N.E.2d 337 (1980).

⁷ Docket No. 2024-00090 Order at 5 (citing 35-A M.R.S. § 3203(13-A)).

ENDNOTES

¹ <https://www.maine.gov/meopa/about/reports-and-testimony/council>. The Council consists of 13 voting members representing customers, special interest groups, and utilities across Maine and five ex-officio members representing various state and quasi-state agencies. Id. Pursuant to Public Law 2021, Chapter 623, the Council submits an annual Report to the Joint Standing Committee on Energy, Utilities and Technology.

² Please see Appendix 1.1 and 1.2 for our biographies.

³ EIA reports that Mega Energy of Maine, LLC served 36 residential customers. In 2022, but also in 2023, the PUC revoked its license. <https://energycentral.com/news/maine-puc-issues-order-revoking-license-involving-mega-energy-maine>. The Maine Public Utilities Commission revoked license (No. 2013-00276) on March 30, 2023, MEGA ENERGY OF MAINE, LLC Application for License to Operate as a Competitive Electricity Provider, ORDER REVOKING LICENSE.

⁴ Policy discussions are prevalent in the states that have opened up the residential retail electric market and encompass topics such as consumer protection measures, enforcement of consumer protections, and the merits of the market. In Maine, an example of a recent regulatory development is the stipulation, pending the PUC's review, reached among the Commission's appointed Advocacy Staff, including the Commission's Consumer Assistance and Safety Division, the Office of the Public Advocate, and Electricity Maine, LLC, which would cap Electricity Maine's variable rate at 6 cents over standard offer through June 2026. Maine Public Utilities Commission Docket No. 2023-00024, Public Utilities Commission Initiated Investigation Pertaining to Electricity Maine, LLC, Amended Stipulation, September 23, 2024.

⁵ Our report issued in January 2023 discusses various consumer protection measures to enhance transparency in the market and to protect consumers from misleading and aggressive sales and marketing practices. "Reform of Electricity Supply: CEP-Served Residential Retail Electric Market," Susan M. Baldwin and Timothy E. Howington, on behalf of Maine Office of Public Advocate, January 13, 2023 ("Baldwin/Howington Maine 2023 Report").

⁶ Maine Public Utilities Commission "Report on Competitive Electricity Providers and Standard Offer Price Comparisons," Presented to the Joint Standing Committee on Energy, Utilities and Technology, February 15, 2018 ("2018 PUC Report").

⁷ Id.

⁸ In other jurisdictions, providers are referred to as third-party suppliers, alternative suppliers, energy service companies (ESCOs) in New York, retail electric generation supplier (EGS) in Pennsylvania. In the Form 861 that suppliers submit to the Department of Energy's Energy Information Administration, suppliers are referred to as "retail power marketers."

⁹ This reflects all suppliers (SOPs, cooperatives, municipal utilities and CEPs).

¹⁰ U.S. Energy Information Administration, EIA Form 861 data, table "Sales_Ult_Cust_2023". Megawatt hours are used to compute the percentages.

¹¹ U.S. Energy Information Administration, EIA Form 861 data, table "Sales_Ult_Cust_2023". Megawatt hours are used to compute the percentages. See Appendix 2.1 for disaggregation among the classes as defined by the Maine PUC.

¹² Maine Public Utilities Commission Migration Statistics (<https://www.maine.gov/mpuc/regulated-utilities/electricity/choosing-supplier/migration-statistics>), accessed October 21, 2024.

¹³ U.S. Energy Information Administration, EIA Form 861 (2023).

¹⁴ "A Predatory and Broken Market: the 2024 Update, Analysis of the Individual Residential Electric Supply Market in Massachusetts," prepared by Susan M. Baldwin and Timothy Howington for Massachusetts Attorney General's Office, April 2024 ("Baldwin/Howington Massachusetts 2024 Report"), page 8.

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¹⁵ “Connecticut OCC Fact Sheet: Electric Supplier Market, April 2023 through March 2024,” Updated on May 3, 2024. <https://portal.ct.gov/occ>. As of October 16, 2024, this is the most recent fact sheet available.

¹⁶ Maine Public Utilities Commission Migration Statistics (<https://www.maine.gov/mpuc/regulated-utilities/electricity/choosing-supplier/migration-statistics>), accessed October 21, 2024.

¹⁷ The EIA number corresponds with residential customers; the PUC reports residential and small commercial customers in one combined category.

¹⁸ U.S. Energy Information Administration, EIA Form 861 data, table "Sales_Ult_Cust_2023".

¹⁹ Connecticut regulators found little value in CEPs' amenities, stating:

The Authority finds the “value-added products” offered by suppliers convey no demonstrable overall benefit based on the (lack of) record evidence. RESA offered no evidence regarding how many hardship customers actually receive “value-added products,” nor did it offer evidence regarding the actual value of these products, such as how many hardship customers receive energy-efficient thermostats, install such thermostats, or even that the hardship customers own the property in which they live and are able to install such thermostats. Furthermore, while gift cards and rebates might benefit the recipient, they do not benefit all Connecticut ratepayers that are contributing to the hardship payments and there is no evidence they offset the customer's overpayment.

Connecticut Public Utilities Regulatory Authority Docket No. 18-06-02, Review of Feasibility of Costs, and Benefits of Placing Certain Customers on Standard Service Pursuant to Conn. Gen. Stat. § 16-245O(M), Decision, December 18, 2019 (“*Connecticut Hardship Decision*”), at 9.

See, also, the findings of the New York Public Service Commission stating:

Finally, to the extent that any value-added products and services are available to New York customers, those products and services are, by and large, not energy related. Rather, they are typically products that are more accurately described as marketing devices or onetime offers intended to induce customers to enroll with the ESCO. The items - such as frequent flyer miles, gift cards, sports tickets, LED light bulbs, and “smart” thermostats - frequently have a market value that is much lower than the amount customers ultimately pay to the ESCO over the course of the contract in excess of what they would have paid to the utilities. Moreover, many of the aforementioned items have nothing to do with providing energy services and therefore serve none of the goals of the energy retail market. As to the items that have a tangential relationship to energy services - lightbulbs, thermostats, etc. - these items offer little or no value for the purposes of the energy retail market given that customers can easily purchase these items outside of that market; we find no convincing proof that customers receive any meaningful value when these easily accessible retail items are tethered to the receipt of commodity energy.

New York Public Service Commission Case 15-M-0127 (In the Matter of Eligibility Criteria for Energy Service Companies); Case 12-M-0476 (Proceeding on Motion of the Commission to Assess Certain Aspects of the Residential and Small Non-residential Retail Energy Markets in New York State); Case 98-M-1343 (In the Matter of Retail Access Business Rules), Order Adopting Changes to the Retail Access Energy Market and Establishing Further Process, December 12, 2019 (“*NYPSC 2019 Order*”), at 11-12.

²⁰ <https://www.maine.gov/meopa/electricity/electricity-supply>

²¹ <https://www.maine.gov/mpuc/regulated-utilities/electricity/standard-offer-rates>

²² <https://www.maine.gov/meopa/electricity/electricity-supply> Table 2.6 summarizes pricing information for ten CEPs. Three CEPs that appear in Table 3.3 (based on EIA-reported information) that do not appear in Table 2.6 (based on information that CEPs report to the OPA) are Energywell LLC, FairPoint Energy LLC, and First Point Power, LLC. (Mega Energy of Maine LLC appears in Table 3.3, but served only 36 households during 2023. See

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footnote 3, above.) One CEP – Think Energy – appears in Table 2.6 but does not appear in Table 3.3 because it does not report data to the EIA.

²³ The OPA does not include any information for CEPs currently serving the Versant - Maine Public district.

²⁴ The location of those employed by CEPs for regulatory affairs, developing marketing materials, and customer service could be in-state or out-of-state.

²⁵ We examined this data subject to a confidential agreement. We have access to CEP annual reports under a Protective Order issued by the PUC, this year in Docket No. 2024-00003. Although we had access to the CEPs' submissions to the PUC, which are afforded proprietary treatment, we did not use any of the information contained in those submissions in our analysis for this report. Instead, for the reasons discussed in Section 3 and summarized in Table 3.1 we relied exclusively on public information to prepare our report.

²⁶ <https://www.eia.gov/electricity/data/eia861/> EIA released final data for 2023 on October 10, 2024, and indicates the next release of data will be in October 2025. Id.

²⁷ The CEPs aggregate data submitted to the PUC for residential customers with small commercial customers. However, these two groups of customers experience the market differently – commercial customers can more easily and effectively navigate the market than can residential customers. With the Maine PUC data we cannot isolate the universe of residential customers and so analyses of that data would reflect a blended experience of households and businesses. In sharp contrast, the EIA data provides data for residential customers separate from commercial customers.

²⁸ The OPA publishes monthly summaries of CEPs' prices, but these prices do not reflect prices actually being charged to residential customers in any given month.

²⁹ The standard offer rates shown in this table represent the average standard offer rates of the three service areas weighted by the number of CEP customers in each service area, separately for each year.

³⁰ The thirteenth supplier shown in Table 3.3 -- Mega Energy of Maine, LLC -- served only 36 customers in 2023. See also footnote 3, above.

³¹ Spark Energy is its parent company.

³² Our calculations take into account all residential customers, including those who pay prices below standard offer rates as well as those who pay prices above standard offer rates.

³³ Please see Section 6 of *Baldwin/Howington Maine 2023 Report* for a more detailed discussion of this issue.

³⁴ <https://www.maine.gov/mpuc/regulated-utilities/electricity/renewable-programs/rps>; see also <http://www.mainelegislature.org/legis/statutes/35-A/title35-Asec3210.html>

³⁵ See Table 2.6, above, which shows, for example, that Xoom (NRG) charges \$0.1199 per kWh for a twelve-month fixed contract and charges \$0.1719 per kWh for a variable product that it displays as 50 percent green.

³⁶ "A renewable energy certificate, or REC, is a market-based instrument that represents the property rights to the environmental, social, and other non-power attributes of renewable electricity generation. RECs are issued when one megawatt-hour (MWh) of electricity is generated and delivered to the electricity grid from a renewable energy resource." (<https://www.epa.gov/green-power-markets/renewable-energy-certificates-recs>)

³⁷ https://www.maine.gov/climateplan/sites/maine.gov.climateplan/files/inline-files/MaineWontWait_December2020_printable_12.1.20.pdf See in particular page 9:

"MAINE'S CLIMATE ACTION PLAN GOALS · Reduce Maine's Greenhouse Gas Emissions · While Maine has been among the leading U.S. states when it comes to mitigating greenhouse gas emissions, significant progress must still be made to meet the state's 2030 and 2050 targets;"

page 12:

"Ensure Adequate Affordable Clean-Energy Supply • Achieve by 2030 an electricity grid where 80% of Maine's usage comes from renewable generation. • Set achievable targets for cost-effective deployment of

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technologies such as offshore wind, distributed generation, and energy storage, and outline the policies, including opportunities for pilot initiatives, necessary to achieve these results;"

and page 55:

"A Renewable Portfolio Standard (RPS) establishes the percentage of electricity that an electricity supplier is required to provide from renewable resources. To encourage more generation of lower-emissions electricity, Maine has increased the state RPS to 80% by 2030, with a goal of 100% renewable electricity by 2050. Additionally, pairing energy storage with small distributed and large utility-scale renewable resources provides opportunities to maximize the value of renewable energy to our electric grid."

³⁸ <https://www.maine.gov/mpuc/regulated-utilities/electricity/renewable-programs/green-power>, site visited October 24, 2024.

³⁹ Id.

⁴⁰ The annual reporting requirement in Chapter 305 simply requires CEPs to describe their voluntary green products as part of the overall reporting directive.

⁴¹ Id.

⁴² <https://www.maine.gov/mpuc/regulated-utilities/electricity/renewable-programs/green-power/faq>, site visited October 24, 2024.

⁴³ See, e.g., "Inflation Reduction Act Guidebook," The White House; <https://www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook/>

⁴⁴ One site explains:

Voluntary RECs: The cost per ton of CO₂e does not exist for voluntary market RECs because as shown below, the voluntary REC market does not affect renewable energy investment or generation. The voluntary REC market has always been massively oversupplied, and research has concluded that it is highly likely to remain so indefinitely. Voluntary market REC (wholesale) price is roughly \$0.5 to \$4 per MWh.

Carbon Offset Guide ("The Offset Guide is an Initiative of the Greenhouse Gas Management Institute and the Stockholm Environment Institute.") <https://offsetguide.org/understanding-carbon-offsets/other-instruments-for-claiming-emission-reductions/renewable-energy/1387-2/>, site visited October 28, 2024.

⁴⁵ <https://www.maine.gov/meopa/electricity/electricity-supply>, site visited October 28, 2024.

⁴⁶ <https://www.green-e.org/certified-resources>, site visited October 28, 2024 (based on filtering for Maine and for residential renewable electricity). The one CEP is Ambit Energy Holdings LLC offering "Ambit Green Northeast," which is based on 100 percent wind. Id. However, this product does not appear on the OPA's summary of Ambit's (and other CEPs') products and prices. <https://www.maine.gov/meopa/electricity/electricity-supply>, site visited October 28, 2024.

⁴⁷ <https://www.green-e.org/certified-resources>, site visited October 28, 2024.

⁴⁸ Fewer than one percent of households in Versant's MHD territory purchase electricity from CEPs. See Table 2.4 in Section 2. There are not any LIAP customers purchasing from CEPs in Versant's MHD territory. Communication from Versant Power, October 15, 2024.

⁴⁹ Communication from Versant Power, October 15, 2024.

⁵⁰ Communication from Versant Power, October 15 and 22, 2024. Versant Power indicated that 6,179 non-LIAP customers purchase electricity supply from CEPs, and that there are a total of 109,500 total residential customers in

the BHD district. Subtracting the 7,346 LIAP customers from the total of 109,500 residential customers yields 102,154 non-LIAP customers. Dividing 6,179 by 102,154 yields 6.05 percent.

⁵¹ Communication from CMP, October 21, 2024.

⁵² Communication from CMP, October 21, 2024.

⁵³ *Baldwin/Howington Maine 2023 Report*, page 34, citing communication from CMP, January 3, 2023 and communication from Versant Power, January 3, 2023, and January 4, 2023.

⁵⁴ *Baldwin/Howington Massachusetts 2024 Report*, page 8.

⁵⁵ *Baldwin/Howington Massachusetts 2024 Report*, page 8.

⁵⁶ *Baldwin/Howington Massachusetts 2024 Report*, page 30.