



# Quantifying Maine's Household Energy Burden and Affordability Gap

A report to the Maine Electric Ratepayer Advisory Council

**By VEIC & Beech Hill Research** 



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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 lowincome 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 in 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. Longerterm, 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).<sup>1</sup> 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.<sup>2</sup>

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



<sup>&</sup>lt;sup>1</sup> US DOE LEAD Tool: <u>https://www.energy.gov/scep/slsc/lead-tool</u>



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.<sup>3</sup> 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

<b>30</b> %	Х	<b>20</b> %	=	<b>6%</b>	
shelter as % of		energy as % of		energy as % of	
income		shelter		income	

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



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

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.<sup>8</sup> 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.<sup>9</sup> 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."* <sup>10</sup> 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. <sup>11</sup> 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%.<sup>12,13</sup> According to a 2021 study by Argonne National Lab, nationally, the average household transportation energy burden is 3.3% and slightly higher in Maine:

https://www.aceee.org/sites/default/files/pdfs/combined energy burdens estimating total home and transportation energy burdens.pdf.



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

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

<sup>&</sup>lt;sup>6</sup> In 2016, New York State established an Energy Affordability Policy that set the goal of limiting energy costs for lowincome 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/L MI-Special-Topic-Rpt---Energy-Burden.pdf.

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

<sup>&</sup>lt;sup>8</sup> Home Energy Affordability Gap: <u>http://www.homeenergyaffordabilitygap.com/</u>.

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

<sup>&</sup>lt;sup>10</sup> http://www.homeenergyaffordabilitygap.com/01 whatIsHEAG2.html.

<sup>&</sup>lt;sup>11</sup> ERAC 2023 Annual Report: <u>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.</u>

<sup>&</sup>lt;sup>12</sup> See **NREL State and Local Planning for Energy (SLOPE) Tool**.

<sup>&</sup>lt;sup>13</sup> ACEEE Combined Energy Burdens:

3.6%.<sup>14</sup> 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).<sup>15</sup> 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.<sup>16</sup>

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.<sup>13</sup> 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.

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

#### Table 1. Affordability thresholds by spending category.

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



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

 <sup>&</sup>lt;sup>15</sup> HUD Location Affordability Index: <u>https://www.hudexchange.info/programs/location-affordability-index/</u>
 <sup>16</sup> Center for Neighborhood Technology Housing and Transportation Affordability Index:

https://cnt.org/tools/housing-and-transportation-affordability-index.

<sup>&</sup>lt;sup>17</sup> Central Maine Power uses a 4% affordability threshold in determining LIAP benefits. See the **<u>ERAC 2023 Annual</u> <u>Report</u>**.

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.<sup>19</sup>

#### 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),<sup>20</sup> 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%).<sup>21</sup> Other common heating fuels include propane (12%), natural gas (9%), wood (10%), and kerosene (2%).<sup>22</sup> 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

<sup>&</sup>lt;sup>22</sup> 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.



<sup>&</sup>lt;sup>19</sup> Fisher, Sheehan, and Colton: Maine 2022 HEAG Fact Sheet.pdf.

<sup>&</sup>lt;sup>20</sup>https://www.cmpco.com/documents/40117/46385018/ELP\_AMP\_Customer\_FactSheet\_rev%2B3.3.23.pdf/f35 5a878-bd38-ce27-ccde-d8c3dd50b1a6?t=1678731820047.

<sup>&</sup>lt;sup>21</sup> DOE LEAD Tool: <u>https://www.energy.gov/scep/slsc/lead-tool.</u>

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.<sup>23</sup> 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%.<sup>24</sup> 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.<sup>25</sup> In 2021, ACEEE reported a national transportation energy burden of 14% among low-income households (those earning less than 200% of FPL).<sup>26</sup>

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),<sup>27</sup> we use gasoline prices to estimate transportation energy spending and burden.

- <sup>25</sup> See: https://www.streetlightdata.com/miles-driven-tax-equity-ev-future/.
- <sup>26</sup> Understanding Transportation Energy Burdens:

https://www.aceee.org/sites/default/files/pdfs/transportation\_energy\_burdens\_final\_5-13-21.pdf. <sup>27</sup> US DOE Alternative Fuel Data Center: https://afdc.energy.gov/vehicle-registration.



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

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

#### **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.

	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

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

#### The 2019 Energy Burden Study

Our research builds on an earlier study of energy burden, completed in 2019.<sup>28</sup> 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 categorieshome 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.

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



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) Tool<sup>29</sup> and the Residential Energy Consumption Survey (RECS).<sup>30</sup> 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,<sup>31</sup> 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).<sup>32</sup> 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

<sup>&</sup>lt;sup>29</sup> https://www.energy.gov/scep/slsc/lead-tool.

<sup>&</sup>lt;sup>30</sup> <u>https://www.eia.gov/consumption/residential/.</u>

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

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

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.<sup>33</sup> 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

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



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).







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.

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

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

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.



		Spenc	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

Table 4. Home energy affordability gap by income band.<sup>34</sup>

#### **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.

				Affo	ordability 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

<sup>&</sup>lt;sup>34</sup> 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.<sup>35</sup> 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.

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

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

<sup>&</sup>lt;sup>35</sup> 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+ <sup>36, 37</sup>
Solar	\$200-\$300 (15% bill savings) <sup>38</sup>

#### **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.

<sup>&</sup>lt;sup>38</sup> Savings estimate from the Maine Governor's Energy Office.



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

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

#### **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%.<sup>39</sup>



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.

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





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.

# veic

AMI Income Band										
County	0-30%	30-60%	<b>60-80</b> %	<b>80-100</b> %	<b>100%+</b>	Grand Total				
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				

#### Table 7. Aggregate home energy affordability gap by county.

#### **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.<sup>40</sup> In addition, Maine's Window Dressers program helps renters alleviate high winter heating bills through

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



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



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

<sup>&</sup>lt;sup>43</sup> <u>https://www.efficiencymaine.com/at-work/multifamily-weatherization-solutions/</u>



<sup>&</sup>lt;sup>41</sup> https://windowdressers.org/

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

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 August. 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.







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 districtaverage 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.<sup>44</sup>



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.<sup>45</sup> 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

<sup>&</sup>lt;sup>45</sup> https://www.maine.gov/climateplan/dashboard.



<sup>&</sup>lt;sup>44</sup> Maine Residential Baseline 2024:

https://www.efficiencymaine.com/docs/Maine Residential Baseline 2024.pdf.

Vermont household.<sup>46</sup> 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.





<sup>&</sup>lt;sup>46</sup> 2023 Vermont Energy Burden Report: <u>https://www.efficiencyvermont.com/Media/Default/docs/landing-pages/energy-burden-report/2023-EfficiencyVermont-EnergyBurdenReport.pdf.</u>



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.<sup>47</sup> 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.<sup>48</sup>

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

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.<sup>50</sup> 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.

<sup>&</sup>lt;sup>49</sup> 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.
<sup>50</sup> See: CMP Annual Report of Credit and Collection Activity 2023; Annual Credit and Collections Report Versant Power 2023.



 <sup>&</sup>lt;sup>47</sup> See: <u>https://www.efficiencymaine.com/electric-vehicle-incentives-for-low-and-moderate-income-mainers/.</u>
 <sup>48</sup> See: 2023 Maine Public Utilities Commission Annual Report.

**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%).<sup>51</sup>

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.

<sup>&</sup>lt;sup>51</sup> 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.<sup>52</sup> 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.<sup>53</sup> 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.





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



<sup>&</sup>lt;sup>52</sup> <u>https://www.census.gov/data/experimental-data-products/household-pulse-survey.html.</u>



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.

Program	Administrator	Eligibility	Enrollment
Low Income Assistance Program (LIAP) (credit on bill based on income and usage)	CMP and Versant Power	<ul> <li>(a) Enrollment in HEAP, (b) participate in means-tested DHHS program, (c) HHI</li> <li>&lt;=150% of FPL</li> <li>Not eligible if you receive housing subsidies that cap total housing costs, including energy</li> </ul>	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	<b>28-<u>30% discount</u></b> 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

Table 8.	Eligibility for	assistance an	d payment	management	programs.
	Englishing for	assistance an	a payment	management	programs.



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 moderateincome 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.<sup>54</sup>

#### 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.





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 MaineHousing Central Heating Improvement Program (CHIP). Cumulatively, over the past ten years, these programs have reached over 30,000 homes (Figure

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





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.<sup>55</sup> 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 incomeeligible 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.

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



**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 incomeeligible clients in their database (~67,573 households with an FPL <= 150%; CMP and Versant also mail bill inserts about programs).
- New seasonal heat pump rate can reduce winter heating costs.<sup>56</sup>
- 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.

<sup>&</sup>lt;sup>56</sup> 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)

			Spei	Spending Burden Affordab		Burden		ordability 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**

	AMI Band									
	0-30	0%	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
Кпох	\$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

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

### 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	<ul> <li>(a) Enrollment in HEAP, (b) participate in means-tested DHHS program, (c) HHI &lt;=150% of FPL;</li> <li>(Not eligible if you receive housing subsidies that cap total housing costs, including energy)</li> </ul>	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 changes 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) ( <u>MaineHousing</u> dashboard)	\$26.7M (PY2024) ( <u>MaineHousing</u> 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 ( <u>MaineHousing</u> 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 <sup>57</sup>		

<sup>&</sup>lt;sup>57</sup> 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 Improveme	ents 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 ( <u>MaineHousing</u> <u>dashboard</u> )	\$5.5M in 2023 ( <u>MaineHousing</u> <u>dashboard</u> )
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) ( <u>MaineHousing</u> <u>dashboard</u> )	\$4.2M (2023) ( <u>MaineHousing</u> <u>dashboard</u> )
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) ( <u>MaineHousing</u> <u>dashboard</u> )	\$8.6M (2023) ( <u>MaineHousing</u> <u>dashboard</u> )
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) ( <u>7/24/2024 ED</u> <u>report</u> )	\$34.6M (FY2024 for all lo-income initiatives) <sup>58</sup>

<sup>&</sup>lt;sup>58</sup> 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 <sup>59</sup> Moderate- income: 1,827 in FY2024 (source: <u>7/24/2024 ED</u> <u>report</u> )	
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: <u>7/24/2024 ED</u> <u>report</u> )	

<sup>&</sup>lt;sup>59</sup> 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.