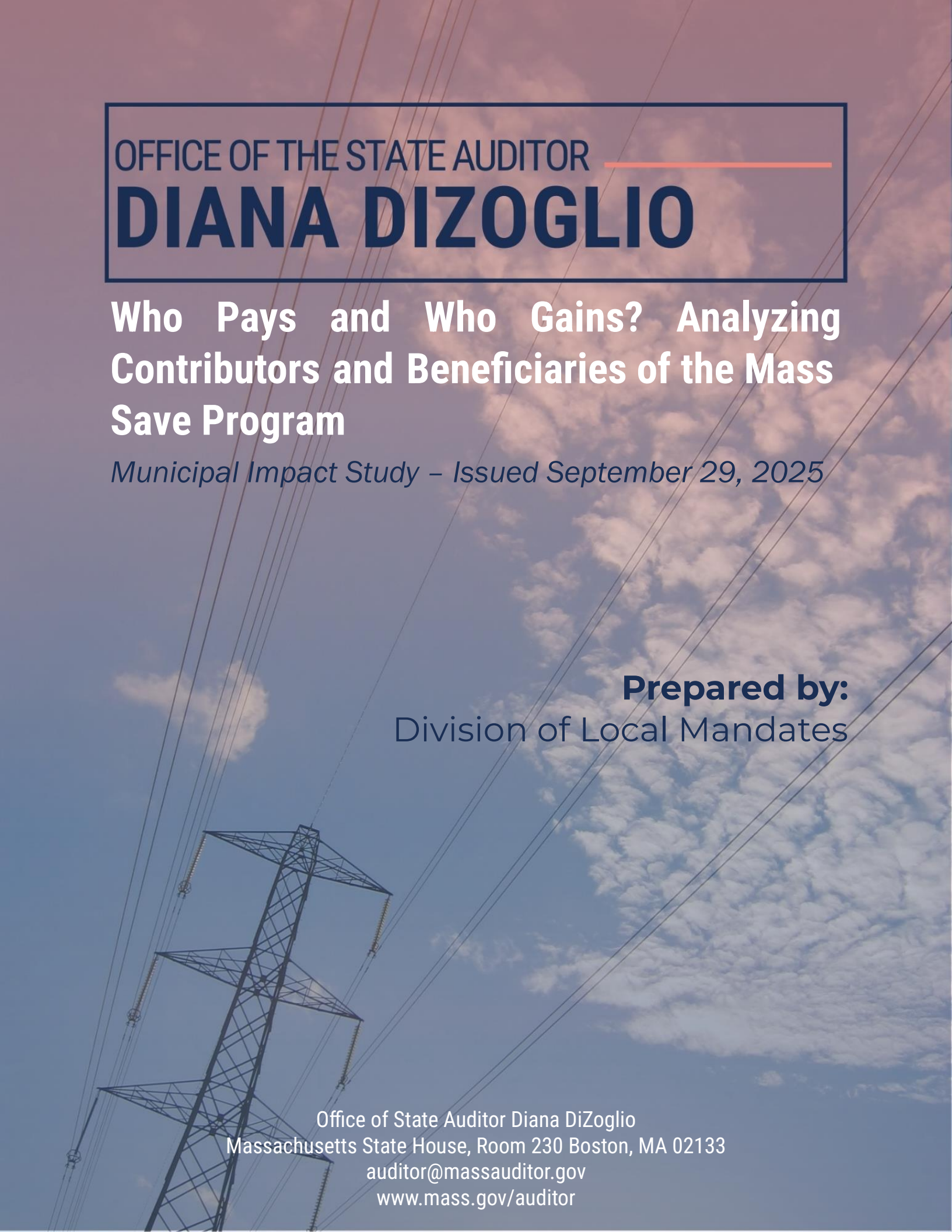
OFFICE OF THE STATE AUDITOR

DIANA DIZOGLIO

Who Pays and Who Gains? Analyzing Contributors and Beneficiaries of the Mass Save Program

Municipal Impact Study – Issued September 29, 2025



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OFFICE OF THE STATE AUDITOR

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Dear Reader:

This report examines equity in the Mass Save program, an initiative aimed at enhancing energy efficiency across Massachusetts. Operated by a collaborative of investor-owned electric and natural gas utilities and funded through mandatory surcharges on utility bills, Mass Save is designed to empower residents and businesses to adopt energy-efficient upgrades through various incentives, rebates, and services, thereby reducing energy consumption and promoting environmental sustainability. Mass Save implementation, however, has led to a skewed distribution of benefits, favoring residents of many higher-income cities and towns.

Our analysis also reveals that residents of many lower-income municipalities, especially those identified as Gateway Cities and Environmental Justice (EJ) municipalities, contribute disproportionately more to the Mass Save program. Residents of forty-eight municipalities with per capita income under the state median contributed to Mass Save at more than the state average rate; of these, 15 have annual per capita incomes less than $35,000. There is also evidence of disproportionate financial burden on residents of EJ municipalities and Gateway Cities. For example, residents living in municipalities with more than 90% of their population in EJ block groups contributed $90.67 per capita, which is 151% of the contribution of municipalities with no EJ block groups at $60.04 per capita. Furthermore, the average per capita contribution of residents of Gateway Cities was 24% higher than state average outside Gateway Cities ($77.76 versus $62.96), but when considering the income differential, Gateway City residents contribute to Mass Save 3.2 times more than the average Massachusetts resident.

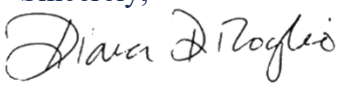
To address these issues and improve the Mass Save program, this report recommends:

- transferring program administration from utilities to an independent entity without a financial interest in energy consumption;
- the Legislature initiating robust oversight through public hearings and policy review to ensure the program serves all Massachusetts residents equitably and efficiently;
- correcting long-standing disparities in renter participation by developing a targeted incentive package to better align landlord and tenant interests;
- restructuring utility bills to clearly itemize Mass Save charges and provide plain-language explanations to improve public understanding and trust; and

- enhancing transparency and accountability through timely, disaggregated data reporting, the collection of demographic participation metrics, and the creation of an independent complaint reporting system with full accessibility and language support.

I am hopeful that the findings and recommendations presented here will foster meaningful dialogue among legislators, utility administrators, stakeholders, and community members, ultimately leading to reforms that prioritize fairness, efficiency, and transparency for all residents of the Commonwealth.

Sincerely,



Diana DiZoglio
Auditor of the Commonwealth

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LIST OF ABBREVIATIONS

AMI	area median income
DLM	Division of Local Mandates
DPU	Department of Public Utilities
EEAC	Energy Efficiency Advisory Council
EEC	energy efficiency charge
EJ	environmental justice
GC	Gateway City
MGL	Massachusetts General Laws
PA	program administrator

LIST OF DEFINED TERMS

ACS	This refers to the American Community Survey, which is an ongoing survey conducted by the U.S. Census Bureau that collects detailed demographic, social, economic, and housing information from a sample of households across the United States.
decile	This refers to the result of a division into ten equal parts, each containing 10% of the data when it is sorted in ascending order.
Energy Efficiency Charge (EEC)	This refers to a charge on ratepayers' bills, which collects funds for Mass Save. Sometimes it is also called an energy efficiency surcharge.
environmental justice (EJ) block group	This is identified by the Executive Office of Energy and Environmental Affairs (EEA), according to criteria delineated in Massachusetts General Laws (MGL) Chapter 30, Section 62, as a census block group where the population faces disproportionate environmental burdens and limited access to environmental benefits due to factors such as lower income, minority status, or language barriers; these communities receive some priority for protection and resources to address and mitigate environmental inequities as outlined in the state's EJ policies.
EJ municipality	For the purposes of this report, this refers to a municipality containing at least 90% EJ block groups.
Gateway City (GC)	MGL Chapter 23A, Section 3A defines a Gateway City as "a municipality with a population greater than 35,000 and less than 250,000 with a median household income below the commonwealth's average and a rate of educational attainment of a bachelor's degree or above that is below the commonwealth's average."
incentives	This refers to the money provided by Mass Save to program participants for undertaking energy-efficiency measures.
median	This refers to the middle value in a set of numbers when they are arranged in ascending (or descending) order.
net beneficiary	This refers to a person or group that receives more money than they contribute.
net contribution	This refers to money contributed to Mass Save minus money received.
net contributor	This refers to a person or group that contributes more than it receives.
net return; net benefits	This is money received from Mass Save minus money paid out to Mass Save.

ABOUT THE DIVISION OF LOCAL MANDATES

The Office of the State Auditor's Division of Local Mandates (DLM) was established by Proposition 2½, a ballot measure passed by voters in 1980 intended to limit the amount of revenue a municipality can raise through property tax increases, absent voter approval. Additionally, Proposition 2½ protects cities and towns from the involuntary imposition of expenditures by state law, rule, or regulation. This protection is codified in Massachusetts General Laws (MGL) Chapter 29, Section 27C, referred to as the Local Mandate Law, which provides that any state law, rule, or regulation adopted after 1980 that imposes new direct service or cost obligations on cities and towns, excluding incidental local administration expenses, is effective only if locally accepted by the municipality or fully paid for by the Commonwealth. This protection also applies to regional school districts and educational collaboratives.

DLM determines the financial impact on cities and towns of proposed and existing state laws, rules, and regulations. A city, town, regional school district, educational collaborative, or the Legislature (via the House of Representatives, the Senate, or a legislative committee) may petition DLM for a determination of whether the Commonwealth has fully paid for the costs imposed by any law, rule, or regulation subject to the Local Mandate Law and, if not, the amount of the deficiency. DLM shares its determinations with the petitioners, as well as with the Executive and Legislative branches of the government.

In 1984, the Legislature expanded DLM's responsibilities to include examining any state law, rule or regulation having a significant financial impact on cities and towns, regardless of whether the Local Mandate Law applies. This statute is codified as MGL Chapter 11, Section 6B. Pursuant to this law, DLM releases reports known as municipal impact studies, or 6B reports.

DLM's mandate determinations, cost analyses, and municipal impact studies protect cities and towns by examining issues impacting municipal budgets, offering recommendations to make government work better, and ensuring that local governments are not financially burdened by inadequately funded obligations imposed by the state.

EXECUTIVE SUMMARY

This report examines the municipal distribution of incentives[1] from Mass Save, a Commonwealth energy efficiency program. Data from 2019 to 2023 is examined (Mass Save has not released more recent data).[2] The Office of the State Auditor's DLM reviewed the correlation of Mass Save incentive distribution with socioeconomic factors including income, population density, and owner-occupied housing rate. Furthermore, DLM assessed the impact of Mass Save incentives in environmental justice (EJ) municipalities[3] and gateway cities (GCs).[4]

DLM finds significant disparities in the distribution of Mass Save incentives, where residents of some higher-income municipalities received more than they contributed and residents of many lower-income municipalities contributed more than they received. Residents of 48 of the 175 municipalities with per capita income under the state median contributed to Mass Save at more than the state's average rate; of these, 15 have annual per capita incomes of less than $35,000.[5] There is also evidence of disproportionate financial burden on residents of EJ municipalities and GCs. For example, residents living in municipalities with more than 90% of their population in EJ block groups contributed $90.67 per capita over the studied period (2019-2023), which is 151% (or $60.04 per capita) of the contribution of municipalities with no EJ block groups. Furthermore, the per capita contribution of residents of GCs was 24% higher than the state average outside GCs ($77.76 versus $62.96), but when considering the income differential, GC residents contribute to Mass Save at a rate that is 3.2 times higher than the average state resident.[6]

1. Note that in this context, incentives refer to the money provided by Mass Save to participants for undertaking energy efficiency measures, while net benefits equal the difference between the received incentives and the contributions made by residents to the program.
2. Mass Save is required to make public data on incentive distribution starting with fiscal year 2025—see MGL Chapter 25, Section 22(d) for more information—but it has not been under any legal obligation to share its data until the present moment. Note that all data references in this report refer to the 2019–2023 period.
3. See the Commonwealth's webpage on Environmental Justice policy for more information. For the purposes of this report, we define EJ municipalities as those municipalities containing at least 90% EJ block groups.
4. MGL Chapter 23A, Section 3A defines a GC as "a municipality with a population greater than 35,000 and less than 250,000 with a median household income below the commonwealth's average and a rate of educational attainment of a bachelor's degree or above that is below the commonwealth's average."
5. See Figure 4 for a full list.
6. See Data Overview for more information regarding data limitations. The population of available GCs was 1,837,313, with an associated total net contribution for the period of $142,874,125 (or $77.76 per capita). The population of non-GCs was 4,980,677, with an associated total net contribution of $313,568,573 (or $62.96 per capita). But the average income per capita in GCs in 2021 was $28,867, whereas the average income per capita in non-GC municipalities was $74,955, for an income differential ratio of 2.6. Therefore, net contribution per capita represented .0027% of yearly income in GCs, but only .0008% of yearly income in non-GCs, a ratio of 3.2.

Below is a summary of our findings and recommendations, with hyperlinks to each page listed.

Finding 1 **Page 10**	Twenty-seven percent of residents in communities with incomes below the state median contribute more than the state average rate to Mass Save.
Finding 2 **Page 17**	Residents of Gateway Cities and municipalities with Environmental Justice Communities contribute significantly more to Mass Save than others.
Finding 3 **Page 19**	Mass Save benefits decrease as population density and percentage of renters increase: only 7% (1 out of 15) of municipalities with high-density populations receive more benefits from Mass Save than they contribute to Mass Save, and only 8% (10 of the 126) of municipal net beneficiaries are above the state average for renter-occupied housing.
Finding 4 **Page 22**	Utility bills lack transparency regarding required Mass Save contributions (Energy Efficiency Charges).
Recommendation 1 **Page 25**	Utility companies should not administer Mass Save.
Recommendation 2 **Page 26**	The Legislature should consider oversight hearings.
Recommendation 3 **Page 27**	Solve the issue of renter participation.
Recommendation 4 **Page 28**	Increase transparency.

BACKGROUND

Mass Save Overview

Mass Save is a collaborative of the Commonwealth's investor-owned electric and natural gas utilities, formed to "empower residents, businesses, and communities to make energy efficient upgrades by offering a wide range of services, rebates, incentives, trainings, and information."[7] Importantly, Mass Save is not a state agency or an independent state agency.[8]

The collaborating utilities serve as Mass Save program administrators (PAs), collectively proposing three-year energy efficiency plans pursuant to directives in the Green Communities Act enacted by the Commonwealth in 2008.[9] The overarching purpose of Mass Save as reflected in the proposed plans is to achieve reductions in energy use, in part by incentivizing property owners to invest in energy-efficiency upgrades.[10]

Mass Save incentives are funded primarily by customers of the collaborating utilities, through mandatory energy efficiency charges (EECs) via their electric and gas bills calculated based on use.[11] EECs are set at a specific level in the proposed plans in cents-per-kilowatt-hour (or ¢/kWh) for electricity and dollars-per-therm (or $/therm) for natural gas. As of 2024, EECs added around $200 per year to the electricity bill of the average residential customer and around $150 per year to the gas bill.[12]

For the period of data availability (2019–2023; see Data Overview for more information), 69.5% (or $3.7 billion) of the Mass Save budget was allocated to be disbursed to program participants as incentives, with the remainder allocated to program planning and administration (4%, or $216 million); marketing and advertising (2.9%, or $155 million); sales, technical assistance, and training (17%, or $908 million); evaluation and market research (2% or $109 million); or PA

7. See https://www.masssave.com/en/about-us. Note that only investor-owned utilities participate in Mass Save. Some municipalities do have their own, municipally owned power plants, but these are not required to participate in Mass Save.
8. Mass Save is a collaborative of electric and natural gas utilities, which, as of 2025, includes Berkshire Gas, Cape Light Compact, Eversource, Liberty, National Grid, and Unitil. See Justia Trademarks. 2025. "Mass Save." Accessed April 6, 2025. https://trademarks.justia.com/765/99/mass-76599716.html.
9. See St. 2008, Chapter 169. The Commonwealth's Green Communities Act requires administration by electric distribution companies of energy efficiency programs funded by a mandatory charge on electricity consumers under said section, and administration by gas distribution companies of approved gas energy efficiency programs. See MGL Chapter 25, Sections 19–22; see also St. 2008, Chapter 169, Section 11. Such programs are administered by the collaborating utilities under the Mass Save service mark.
10. See https://ma-eeac.org/wp-content/uploads/2019-2021-Three-Year-Energy-Efficiency-Plan-April-2018.pdf.
11. The vast majority (85–90%) of Mass Save funding in any given cycle comes from the aforementioned surcharges, the distribution of which are the main topic of analysis for this report. Other statutory funding sources exist (for example, the Systems Benefit Charge and the Forward Capacity Market Revenue—see MGL Chapter 25, Section 19(a) for more information). Historically, some Cap and Trade Revenues from the Regional Greenhouse Gas Initiative (also known as RGGI) have also been transferred to Mass Save. (See Brownsberger, 2022).
12. See Barndollar, Hadley. (2024, June 18). "As Mass Save program approaches record $5 billion, qualms over who foots the bill." *Masslive*.

performance incentives (4.5%, or $239 million).[13] See Figure 1 for more information; also, see Appendix A for Mass Save's historical budgets.

Governance and Regulatory Oversight

The Green Communities Act also established the Energy Efficiency Advisory Council (EEAC).[14] EEAC is composed of 15 voting members who represent state agencies, the Attorney General's Office, consumer advocacy groups, and environmental organizations.[15] EEAC is chaired by the Commissioner of the Department of Energy Resources. This department provides policy direction and technical support for EEAC.[16] EEAC reviews proposed energy efficiency plans and refines program designs, with its stated priorities being "to develop, implement, evaluate, and monitor the implementation of these plans."[17] EEAC is also charged with "developing a long-term vision for the Commonwealth's energy future" and works "to achieve energy efficiency savings and to maximize the economic and environmental benefits of energy efficiency."[18]

Once EEAC vets the proposed energy efficiency plans, the PAs submit the plans to the Department of Public Utilities (DPU), together with EEAC's approval or comments and a statement of any unresolved issues.[19] DPU conducts a formal review process, which includes public hearings and comment periods.[20] Once the proposed energy efficiency plans are approved, PAs manage implementation while service providers authorized by Mass Save carry out the actual efficiency upgrades and installations.[21]

Program Offerings and Equity Considerations

Mass Save's programs and initiatives encompass a wide range of energy-efficient upgrades and educational efforts.[22] For example, Mass Save incentivizes insulation upgrades, encouraging property owners to add insulation to attics, walls, and basements, as well as sealing air leaks around windows, doors, and other openings.[23] Mass Save also promotes the installation of energy-efficient appliances, particularly Energy Star–certified refrigerators,

13. Performance incentives represent financial rewards paid to PAs based on how well they meet or exceed specific goals set out in the energy efficiency plans.
14. See Massachusetts Energy Efficiency Advisory Council, About the Council, accessed April 4, 2025, https://ma-eeac. org/about/.
15. See https://ma-eeac.org/about/members/.
16. St. 2008, Chapter 169, Section 11.
17. See https://ma-eeac.org/about/.
18. Id.
19. See MGL Chapter 25, Section 21.
20. See id; see also https://www.mass.gov/energy-efficiency-activities-of-utilities.
21. Mass Save. (n.d.). Find a contractor. https://www.masssave.com/residential/find-a-contractor.
22. Mass Save, "About Us," Mass Save (Massachusetts energy efficiency program), accessed April 4, 2025, https://www.masssave.com/about-us.
23. Mass Save, Building Insulation & Weatherization Incentives, accessed April 4, 2025, https://www.masssave.com/business/rebates-and-incentives/building-insulation-and-weatherization.

washing machines, and dishwashers, while offering rebates for high-efficiency heating and cooling systems, including heat pumps.[24] Lighting improvements were an aspect of Mass Save's early efforts; the program encouraged consumers to switch from incandescent bulbs to more efficient compact fluorescent (also known as CFL) and later light-emitting diode (also known as LED) options, providing discounts on energy-efficient light fixtures to facilitate this transition.[25]

Over the years, the program has evolved to include other policy priorities, including energy equity.[26] Because state energy costs have been persistently higher than the national average, ensuring access to affordable energy for all is especially important in Massachusetts.[27] In particular, the American Council for an Energy Efficient Economy notes that 12.4% of the Greater Boston metropolitan area households (of which, there are 230,652) experience a severe energy burden (defined as energy bills greater than 10% of household income), while a further 12% of the Greater Boston metropolitan area households (of which, there are 216,706) have a high energy burden (defined as energy bills greater than 6% of the household's income).[28] Statewide, the typical household electricity bill is $3,552 per year, which is 52% higher than the national average electric bill of $2,340 per year.[29] For natural gas, Massachusetts residents pay an average of $17.20 per thousand cubic feet, which is 29% more than the US average of $13.36 per thousand cubic feet.[30]

Poorly designed energy incentive programs can unintentionally worsen policy outcomes. For example, a 2016 study found that US households received over $18 billion in tax credits for various energy investments (such as home weatherization and solar panels), with the top 20% of earners receiving

24. Mass Save. "Appliances & Products." Accessed April 4, 2025. https://www.masssave.com/residential/rebates-and-incentives/appliances-and-products.
25. Mass Save. "Lighting & Lighting Controls." Accessed April 4, 2025. https://www.masssave.com/business/rebates-and-incentives/lighting-and-controls.
26. Mass Save explicitly addresses energy equity and includes it as a core focus for program design and delivery. The Mass Save equity focus rests on the following three pillars: (1) expanding access to energy efficiency services for low- and moderate-income customers; (2) addressing historically underserved populations; and (3) ensuring fair distribution of benefits across communities, especially EJ populations, renters, and non-English speakers. For a full list of equity targets, see Appendix E: Equity Targets in the Massachusetts Statewide Energy Efficiency Plan 2022–2024 at https://ma-eeac.org/wp-content/uploads/Mass.-Statewide-Energy-Efficiency-Plan-Submitted-April-30-2021.pdf.
27. Statistics are available from the US Energy Information Administration (see the state rankings tables here).
28. The American Council for an Energy Efficient Economy. Energy burdens in Boston. 2020. Note in particular: "A quarter of low-income households have an energy burden above 19% in the Boston metropolitan area, which is more than six times higher than the median energy burden." Further note that the American Council for an Energy Efficient Economy refers to the 2017 household numbers for the Boston-Cambridge-Newton, Massachusetts–New Hampshire Metropolitan Statistical Area (MSA) as being 1,853,800 households (see Footnote 4 on p. iii here). For more Greater Boston metropolitan area statistics, see census.gov.
29. EnergySage. What is the average electricity bill in Massachusetts? Retrieved March 25, 2024, from https://www.energysage.com/local-data/electricity-cost/ma/.
30. ChooseEnergy. (n.d.). Natural gas rates by state. Retrieved March 25, 2024, from https://www.chooseenergy.com/data-center/natural-gas-rates-by-state/.

approximately 60% of the tax expenditure ($10.8 billion), and the bottom 60% of earners receiving only around 10% ($1.8 billion).[31] More recently, a 2024 study of US residential energy tax credits found that tax credits primarily benefited higher-income taxpayers: When analyzing the distribution of the Residential Energy Efficient Property credit and the Nonbusiness Energy Property credit, it was observed that these tax credits exhibit regressivity (meaning that a disproportionate share of the benefits goes to higher-income groups). The study concluded that over 57% of tax expenditures went to the top 20% of income earners; conversely, only 0.02% of these expenditures benefited the lowest 20% of income earners.[32] It is therefore crucial to examine the distribution of statewide energy incentives via Mass Save to verify that the Commonwealth's practices do, in fact, maximize equitable access for residents.[33]

Data Overview

DLM received data from Mass Save, including the following:

1. the program's total number of ratepayers;

2. the EEC paid into Mass Save from all ratepayers;[34] and

3. total program incentives disbursed from Mass Save to program applicants.

Mass Save categorized the data by zip code, PA type (electric or gas), and sector (residential and commercial/industrial).

There are several limitations to the data. First, Mass Save incentive data is not publicly available, and there are significant delays in its release. For example, we initially requested data in April 2023 for program years 2019–2021, but did not receive that data until November 2023; similarly, data for 2022 and 2023 was not available until March 31, 2025.

Second, the data was aggregated according to DPU standards for Mass Save under EEAC Order 14-141 to protect customer privacy, which means that data was excluded for zip codes with fewer than 100 residential customers and/or

31. Borenstein, S., & Davis, L. W. (2016). The distributional effects of US clean energy tax credits. Tax Policy and the Economy, 30(1), 191–234.
32. Coyne, D., & Globus-Harris, I. (2024). A review of US residential energy tax credits: Distributional impacts, expenditures, and changes since 2006. Journal of Environmental Studies and Sciences. P. 11.
33. This report understands social welfare according to its definition provided in classical economics; that is, the maximization of the aggregate welfare derived by all individuals within a society, in conditions approaching Pareto efficiency.
34. The EEC is the fee collected on residential and commercial utility bills to fund Mass Save.

fewer than 15 commercial customers.[35] This exclusion affected a third of the state's zip codes but only approximately 2.4% of the state population.

Further, approximately 9% of Mass Save incentives could not be assigned to zip codes and are therefore excluded from zip code–level reporting.[36] This includes, for example, 6% from residential improvements like light bulbs and pool pumps (for 2019–2021 only); 5% from HEAT loan interest buy-downs; and 2% from active demand reduction programs, which were not integrated into the system at the time of data delivery.[37] An additional 1% was added by Mass Save in the data provided to us as a reconciliation line item to ensure that totals matched what was reported to DPU.[38] This report focused, therefore, on the available 91% of mapped incentives for the 2019–2023 period.[39] At the municipal level, data was available for 322 out of 351 Massachusetts municipalities, including 24 out of 26 GCs.[40]

Figure 1 below summarizes areas of Mass Save planned expenditures for the period 2019–2023. (Note that throughout this report, all tables, figures, and statements refer to this period, unless indicated otherwise.) Mass Save budgeted paying out $3.7 billion in incentive pay-outs to program participants, on a total expense budget of $5.33 billion. On the revenue side, PAs had estimated an income of $5.39 billion, with the large majority of this sum coming from the energy efficiency charge (EEC)—which was 90%—and the rest from secondary sources (see Footnote 11 for more information). There is a difference because of estimated carry-over (which are the unspent funds from previous program years that are carried into the current period and used to support ongoing or future expenses).

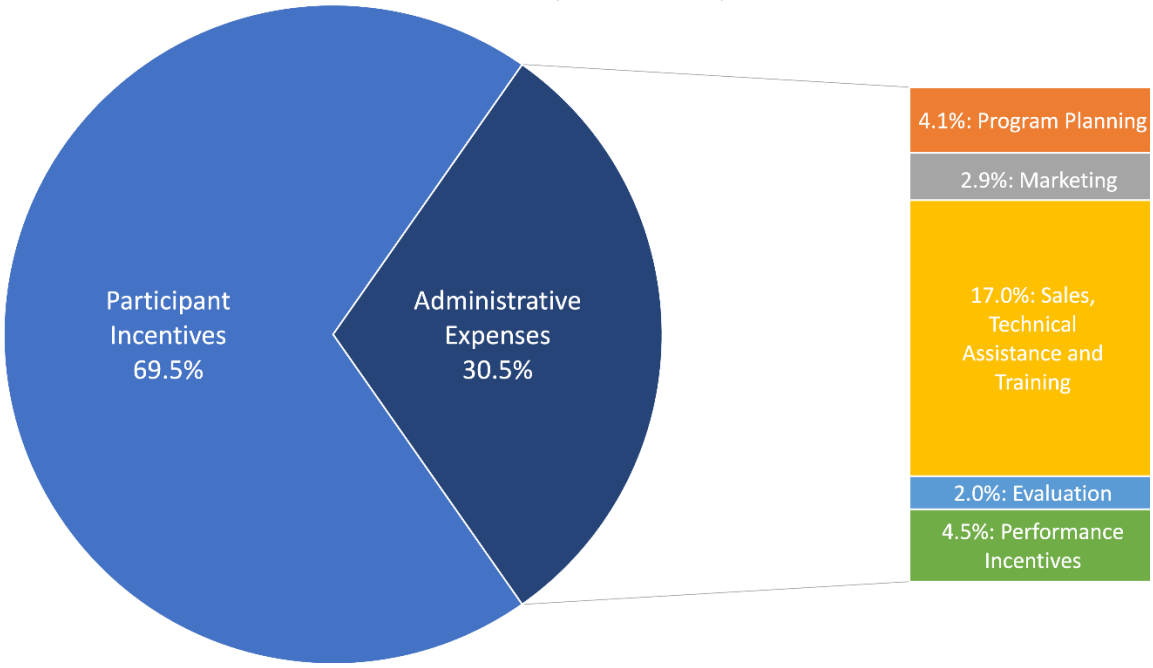
35. Massachusetts Department of Public Utilities, Order on the Statewide Energy Efficiency Database, DPU 14-141, December 1, 2014, https://ma-eeac.org/wp-content/uploads/DPU-Statewide-Energy-Efficiency-Database-Order-Dated-12-1-14.pdf.
36. Memo dated March 31 2025, "Re: Massachusetts Energy Efficiency Program Analysis of Incentives Relative to Energy Efficiency Surcharges", p. 17-18, on file with DLM.
37. Id., p. 18.
38. Id.
39. Id., p. 19.
40. The two GCs for which data was unavailable were Holyoke and Westfield.

Figure 1. Mass Save PA Planned Expenditures, Total Amounts (2019–2023)*

Expense Category	Expense Subcategory	Electricity	Gas	Total	Percentage of Total Planned Expenditures
Participant Incentives		$2,594,340,357	$1,110,671,996	$3,705,012,353	69.5%
Administrative Expenses	of which:	$1,125,271,327	$503,090,598	$1,628,361,925	30.5%
	Sales, Technical Assistance, and Training	$599,148,172	$309,302,130	$908,450,302	17.0%
	Performance Incentive	$191,358,345	$47,375,739	$238,734,084	4.5%
	Program Planning	$154,326,006	$62,347,037	$216,673,043	4.1%
	Marketing and Advertising	$101,740,758	$53,761,953	$155,502,711	2.9%
	Evaluation and Market Research	$78,698,046	$30,303,739	$109,001,785	2.0%
Total Planned Expenditures		$3,719,611,683	$1,613,762,593	$5,333,374,276	100%

* See Massachusetts Energy Efficiency Advisory Council. Massachusetts Statewide Energy Efficiency Plan 2022–2024. Submitted April 30, 2021. https://ma-eeac.org/wp-content/uploads/Mass.-Statewide-Energy-Efficiency-Plan-Submitted-April-30-2021.pdf, Appendix C, p. 9 and p. 14. Planned figures only.

Figure 2. Distribution of Mass Save PA Planned Expenditures by Category, Total Amounts (2019–2023)



Finally, while we did not have access to other primary data, Mass Save has conducted studies in the past on program participation rates. Most notable among these are the *Residential Nonparticipant Market Characterization and Barriers Study*, which attempted a largely sociological characterization of nonparticipants, and the *Residential Nonparticipant Customer Profile Study*, which assessed relationships between participation rates and select customer characteristics.[41] The latter found that participation rates are lower for low- and moderate-income households, for renter households, and for households living in houses constructed before 1950, and recommended changing the program design in order to better integrate these populations.

As noted above, significant delays in releasing Mass Save data undermine transparency, timely analysis, and accountability.[42] For instance, the previously cited in-house studies were published using three-year-old data. This is particularly concerning given the $109 million investment over the 2019–2023 period in program evaluation and market research—activities that fundamentally depend on access to current and accurate information.

41. See Navigant, NMR Group, & Cadeo. (2020). Residential nonparticipant market characterization and barriers study (Report No. MA19R04-A-NP). Massachusetts Program Administrators and Energy Efficiency Advisory Council. See also DNV GL. (2020). Residential nonparticipant customer profile study (Report No. MA19X06-B-RESNONPART). Massachusetts Program Administrators and Energy Efficiency Advisory Council.
42. See Mass Save data portal at https://masssavedata.com.

FINDINGS

1. Twenty-seven percent of residents in communities with incomes below the state median contribute more than the state average rate to Mass Save.

There are significant discrepancies between municipalities' net Mass Save contributions. Some municipalities contributed far more in EECs than they received in Mass Save incentives, while other municipalities received much more than they contributed.

When examining municipalities ordered by income, the analysis revealed that 16 lower-income communities were among the top 25 net contributors into Mass Save. Figure 3 displays these municipalities in decreasing order of net contribution amount. Of these municipalities, 11 have per capita incomes below the $47,767 state median income, and yet, they have per capita contributions significantly above the state average. For example, Lowell has a per capita income of only 56% of the state median, but contributes $162.57 per capita, or 2.4 times more than the state average of $66.95, and 5.5 times more than the state municipal median of $29.32.[43]

Figure 3. Municipality Ranking by Net Amount Contributed, Top 25 Municipalities, Total Amounts (2019–2023)

Rank	Municipality	Net Contributions	Net Contributions per Capita*	Income per Capita	Percentile of Median Municipal Income**	Percent of Population Who Rent	Percent of Population in EJ Blocks
1	Boston	$47,675,842	$72.92	$50,375	105%	64%	84%
2	Newton	$26,800,718	$303.12	$239,346	501%	32%	10%
3	Lowell (GC)	$18,581,554	$162.57	$26,787	56%	54%	96%
4	Worcester (GC)	$17,312,291	$83.38	$25,451	53%	55%	92%
5	Cambridge	$16,753,053	$141.72	$78,194	164%	66%	95%
6	Fall River (GC)	$13,406,780	$142.87	$62,029	130%	64%	81%
7	Brookline	$11,224,286	$178.27	$25,403	53%	56%	99%
8	Springfield (GC)	$9,263,141	$60.28	$19,256	40%	49%	100%
9	Marlborough	$8,762,816	$212.80	$42,729	89%	42%	79%
10	Barnstable (GC)	$8,682,367	$174.66	$32,869	69%	26%	32%

43. The median is used, rather than the average, in order to provide a better representation of the income of the typical Massachusetts municipality, given that income is highly skewed. In this context, the median municipality by 2021 income is Concord at $47,767.

Rank	Municipality	Net Contributions	Net Contributions per Capita*	Income per Capita	Percentile of Median Municipal Income**	Percent of Population Who Rent	Percent of Population in EJ Blocks
11	Nantucket	$8,632,994	$597.69	$104,521	219%	24%	72%
12	Everett (GC)	$8,572,051	$170.36	$41,830	88%	64%	100%
13	Brockton (GC)	$7,948,212	$75.78	$34,762	73%	42%	100%
14	Lynn (GC)	$7,544,227	$74.52	$25,320	53%	50%	96%
15	Billerica	$7,346,524	$176.52	$38,481	81%	22%	28%
16	Weston	$7,345,204	$630.76	$551,525	1155%	10%	0%
17	Lawrence (GC)	$7,007,478	$79.48	$20,915	44%	68%	100%
18	Chelmsford	$7,000,716	$193.50	$24,704	52%	18%	24%
19	Dracut	$6,538,376	$202.48	$34,084	71%	24%	38%
20	Needham	$6,205,525	$192.98	$169,870	356%	16%	0%
21	Quincy (GC)	$6,160,389	$60.64	$43,000	90%	54%	90%
22	Waltham	$6,117,515	$94.88	$50,143	105%	51%	74%
23	Methuen (GC)	$6,111,813	$114.34	$37,061	78%	28%	82%
24	Tewksbury	$5,971,377	$191.13	$51,763	108%	15%	0%
25	Weymouth	$47,675,842	$99.90	$44,810	94%	32%	41%

* The state average Mass Save net contribution per capita (that is, total net contributions divided by total population for all available cities) is $66.95.

** This refers to the personal income per capita of the median Massachusetts municipality for FY 2021 (Concord at $47,767).

Furthermore, Figure 3 incorporates the following three socioeconomic indicators in addition to income per capita: a GC designation, the renter housing rate, and the percentage of the municipal population living in EJ block groups.[44] Approximately half of the top 25 contributing cities display at least one of these indicators—11 are GCs, 14 are above the state average for renter percentage, and 10 have very high percentages (greater than 90%) of their populations living in EJ block groups.

Figure 4 below displays data on all municipalities, in order of increasing median income, and placed in 10 groups of equal population size, known as deciles.

44. GCs and Environmental Justice populations are the two most common ways in which the Commonwealth identifies challenged communities, and they are fully explained in sections 3 and 4 following; as to income per capita and the owner-occupied housing rate, they are both well-established measures of economic well-being, closely tracked by the US Federal Government: see the Income and Poverty and Housing dedicated pages from the US Census Bureau.

Decile 1 includes the municipalities with the lowest 10% of median incomes, while decile 10 represents those with the highest 10%.

Note how the lowest two income deciles (in pink shading) contribute more than deciles 3 through 7. In plain language, the municipalities with the lowest median incomes contribute more income to Mass Save than they receive, and more than most municipalities. Moreover, those income contributions represent a higher percentage of their residents' personal income when compared to all other municipalities. At the top of the income scale (in blue shading), households may contribute the same (decile 8) or more (deciles 9 and 10) in net amounts, but much less as a percentage of income.

Figure 4. Comparison of Mass Save Total Net Contributions (2019–2023) by Massachusetts Municipalities, in Increasing Order of Income, Sorted by Income Decile

Income Decile: Lowest to Highest	Number of Municipalities	Population	Total Income Net Contribution	Total per Capita Net Contribution	Net Contributions per Capita As a Percentage of Daily Income*	Average Income per Capita, per Year
1	14	681,890	$39,200,828	$57.49	95%	$22,044
2	24	668,010	$45,060,045	$67.45	91%	$26,995
3	42	691,456	$37,780,234	$54.64	56%	$35,313
4	44	725,056	$33,357,667	$46.01	41%	$40,481
5	38	602,642	$26,191,354	$43.46	29%	$54,891
6	44	725,957	$33,089,023	$45.58	31%	$52,833
7	35	658,244	$36,760,909	$55.85	32%	$63,468
8	11	792,481	$55,420,831	$69.93	34%	$74,927
9	32	585,648	$45,307,546	$77.36	32%	$87,336
10	38	686,606	$104,274,262	$151.87	32%	$175,656

* This is used as an illustration of the different impacts of the net contribution for the different income deciles—the same amount represents a much higher percentage of daily income for the lowest two deciles, as compared to higher ones.

Figure 5 displays the municipalities below the state median income with net contributions higher than the state average of $66.95 per capita, in decreasing order of population size. There are 48 municipalities in this category (or 13.7% of the total number of municipalities, containing 25% of the state population).[45] Some of them are small and may be considered outliers; nonetheless, the top half of the list is characterized by low incomes, high net contributions, and relatively high populations. This cluster of approximately two dozen municipalities raises equity questions, since the trend suggests an inequitable incentive structure which places a heavier burden on residents with fewer resources.

45. There are 175 municipalities with incomes below the state median. Of these, 48 contribute at rates higher than the state average and 107 contribute at rates lower than the state average. Data was missing for the remaining 20.

Figure 5. Municipalities Under the State Median Income Contributing at More than the State Average Rate of $66.95 per Capita (2019–2023)

Municipality	Net Contributions: Percentage of State Average ($66.95)	Net Contributions per Capita	Income per Capita (2021)	Percentile of Median Municipal Income (2021)	Percentage Renter (2023 ACS)	Population Percentage in EJ Block Groups (2022)	Population (ACS 2023)
Worcester (GC)	125%	$83.38	$25,451	53%	55%	92%	207,621
Lowell (GC)	243%	$162.57	$26,787	56%	54%	96%	114,296
Brockton (GC)	113%	$75.78	$24,698	52%	42%	100%	104,890
Lynn (GC)	111%	$74.52	$25,320	53%	50%	96%	101,241
Fall River (GC)	213%	$142.87	$21,636	45%	64%	81%	93,840
Lawrence (GC)	119%	$79.48	$20,915	44%	68%	100%	88,172
Haverhill (GC)	119%	$79.38	$34,981	73%	38%	57%	67,415
Malden (GC)	135%	$90.32	$34,334	72%	57%	100%	65,133
Taunton (GC)	111%	$74.19	$30,438	64%	37%	51%	60,412
Weymouth	149%	$99.90	$44,810	94%	32%	41%	59,114
Medford	130%	$87.25	$47,556	100%	47%	73%	58,744
Revere (GC)	144%	$96.13	$30,194	63%	50%	100%	57,954
Methuen (GC)	171%	$114.34	$37,061	78%	28%	82%	53,455
Everett (GC)	254%	$170.36	$25,543	53%	64%	100%	50,318
Pittsfield (GC)	165%	$110.51	$31,497	66%	37%	49%	43,076
Fitchburg (GC)	129%	$86.13	$25,471	53%	44%	86%	41,579
Marlborough	318%	$212.80	$42,729	89%	42%	79%	41,179
Dracut	302%	$202.48	$42,616	89%	24%	38%	32,291
Milford	124%	$83.09	$39,858	83%	29%	76%	30,257
Stoughton	171%	$114.44	$41,746	87%	24%	97%	28,962

Municipality	Net Contributions: Percentage of State Average ($66.95)	Net Contributions per Capita	Income per Capita (2021)	Percentile of Median Municipal Income (2021)	Percentage Renter (2023 ACS)	Population Percentage in EJ Block Groups (2022)	Population (ACS 2023)
Bridgewater	210%	$140.33	$41,141	86%	24%	23%	28,818
Saugus	200%	$133.89	$44,588	93%	25%	58%	28,630
West Springfield	222%	$148.37	$36,399	76%	41%	64%	28,424
Agawam	270%	$180.67	$35,689	75%	26%	9%	28,406
Ludlow	138%	$92.52	$35,908	75%	26%	30%	20,845
Norton	332%	$222.18	$47,373	99%	16%	0%	19,146
Winthrop	255%	$170.92	$45,268	95%	44%	44%	18,319
Somerset	144%	$96.43	$39,559	83%	15%	0%	18,209
Swansea	146%	$97.82	$40,531	85%	13%	0%	17,375
Abington	143%	$96.01	$42,780	90%	26%	0%	16,970
Fairhaven	152%	$101.92	$41,830	88%	26%	9%	15,878
Whitman	141%	$94.34	$38,112	80%	27%	0%	15,316
North Adams	194%	$129.65	$19,982	42%	42%	83%	12,483
Hanson	282%	$188.78	$46,839	98%	10%	0%	10,586
Salisbury	186%	$124.69	$41,812	88%	25%	0%	9,259
Townsend	222%	$148.44	$41,852	88%	29%	11%	9,004
Dighton	111%	$74.35	$42,730	89%	10%	0%	8,182
Adams	150%	$100.45	$26,598	56%	37%	83%	7,995
West Bridgewater	159%	$106.65	$44,799	94%	16%	0%	7,681
Williamstown	187%	$125.15	$47,254	99%	30%	24%	7,385
Lee	207%	$138.58	$39,565	83%	19%	17%	5,694

Municipality	Net Contributions: Percentage of State Average ($66.95)	Net Contributions per Capita	Income per Capita (2021)	Percentile of Median Municipal Income (2021)	Percentage Renter (2023 ACS)	Population Percentage in EJ Block Groups (2022)	Population (ACS 2023)
Oak Bluffs	193%	$129.35	$35,050	73%	29%	47%	5,355
Avon	202%	$135.09	$45,108	94%	21%	100%	4,725
West Tisbury	216%	$144.85	$44,013	92%	18%	0%	3,586
Ashby	105%	$70.50	$38,265	80%	6%	0%	3,198
Cheshire	106%	$70.77	$36,195	76%	13%	0%	3,195
Egremont	212%	$142.21	$39,823	83%	21%	0%	1,371
Tyringham	392%	$262.70	$41,074	86%	11%	0%	420

2. Residents of Gateway Cities and municipalities with Environmental Justice Communities contribute significantly more to Mass Save than others.

The concept of an EJ community is rooted in the EJ movement, which emerged in the United States in the 1980s as a response to the disproportionate impact that environmental policies and practices have placed on communities with lower incomes and communities of color.[46] EJ populations are identified by the Executive Office of Energy and Environmental Affairs at the level of census block groups, meeting at least one of the following conditions:[47]

1. *the annual median household income is 65 percent or less of the statewide annual median household income;*

2. *minorities make up 40 percent or more of the population;*

3. *25 percent or more of households identify as speaking English less than "very well";*

4. *minorities make up 25 percent or more of the population, while the annual median household income of the municipality in which the neighborhood is located does not exceed 150 percent of the statewide annual median household income.*

As of 2022, there were 186 municipalities having at least one EJ block group, ranging from Bedford with 0.7% of its population living in such groups to 16 municipalities consisting entirely of EJ block groups.[48] For the purposes of this report, an EJ municipality refers to a municipality containing at least 90% EJ block groups.

Residents of EJ municipalities have a per capita net contribution to Mass Save 1.5 times higher than residents of municipalities with no EJ block groups. As illustrated in Figure 6, approximately half of the 351 municipalities in Massachusetts have no EJ block groups (see first row). The remaining municipalities are separated into deciles, in increasing order of EJ population. While the distribution is uneven, the contributions from EJ municipalities (municipalities with more than 90% of their populations in EJ block groups, as

46. Bullard, Robert D. "Environmental Justice in the 21st Century: Race Still Matters." Phylon (1960-) 49, no. 3/4 (2001): 151–71. https://doi.org/10.2307/3132626.
47. Source: https://www.mass.gov/info-details/environmental-justice-populations-in-massachusetts.
48. The sixteen municipalities where 100% of the population is designated EJ are: Aquinnah, Ashland, Avon, Boxborough, Brockton, Charlemont, Chelsea, Hawley, Lawrence, Malden, Monroe, Randolph, Rowe, Savoy, Springfield, and Sunderland.

highlighted in the last row) are the highest, with a net average contribution of $90.67 per capita.[49]

Figure 6. Mass Save Net Contributions per Capita by EJ Population (2019–2023)

Municipalities' Percentage of Population Living in EJ Blocks	Number of Municipalities	Total Population	Total Net Contributions	Net Contributions per Capita
0%	150	1,168,056	$70,130,092	$60.04
0.01–10%	24	601,653	$49,626,181	$82.48
10.01–20%	35	530,316	$23,021,453	$43.41
20.01–30%	28	539,182	$19,555,106	$36.27
30.01–40%	18	439,462	$15,669,025	$35.66
40.01–50%	12	256,333	$14,128,439	$55.12
50.01–60%	7	274,070	$14,682,070	$53.57
60.01–70%	5	147,887	$5,857,135	$39.61
70.01–80%	13	624,906	$37,390,545	$59.83
80.01–90%	8	991,430	$78,167,538	$78.84
90.01–100%	24	1,414,162	$128,215,114	$90.67

The disproportionately higher net contributions observed among EJ municipalities are one example of the broader socioeconomic challenges impacting their residents. This issue is also evident in the Commonwealth's 26 GCs, which are midsize urban centers that have historically served as immigrant gateways.[50]

The concept of GCs emerged in the early 21st century and was formalized by the Legislature in 2010.[51] These cities were built on manufacturing and trade, but as manufacturing declined in the United States, GCs experienced large economic downturns, leading to population and social welfare decline. Compared to statewide averages, GCs, by definition, have experienced lower

49. Note that at Finding 1 we used the state median to represent the typical Massachusetts municipality in terms of income, given the fact that income is a highly skewed variable. Contributions to Mass Save, however, are not as skewed, and it is therefore appropriate to use the average as a representation of the typical contribution.
50. These GCs are Attleboro, Barnstable, Brockton, Chelsea, Chicopee, Everett, Fall River, Fitchburg, Haverhill, Holyoke, Lawrence, Leominster, Lowell, Lynn, Malden, Methuen, New Bedford, Peabody, Pittsfield, Quincy, Revere, Salem, Springfield, Taunton, Westfield, and Worcester. Note that the list has not been updated since 2013.
51. The concept was first formulated in policy papers developed by the Massachusetts Institute for a New Commonwealth, a research nonprofit organization. See https://massinc.org/about-us/ for more information. For the current definition, see Massachusetts General Court. MGL Chapter 23A, Section 3A. Accessed April 9, 2025. https://malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter23A/Section3A.

income and lower educational achievement.[52] Furthermore, GCs also face challenges of aging infrastructure and attracting investment.[53]

Residents of GCs have a per capita net contribution to Mass Save that is 24% higher than residents of other municipalities. Figure 7 shows the net contribution of residents in GCs to Mass Save over the 2019–2023 period. Residents of GCs contributed $77.76 per capita, versus $62.96 for non-GC residents. This is particularly concerning as the average per capita income for GC residents ($28,867) is approximately 61.5% lower than the average per capita income for non-GC residents ($74,955). As a proportion of income, GC residents contribute to Mass Save approximately 3.2 times more than non-GC residents.[54]

Figure 7. Mass Save Net Contributions by Residents: Comparison of GCs to Non-GCs (2019–2023)

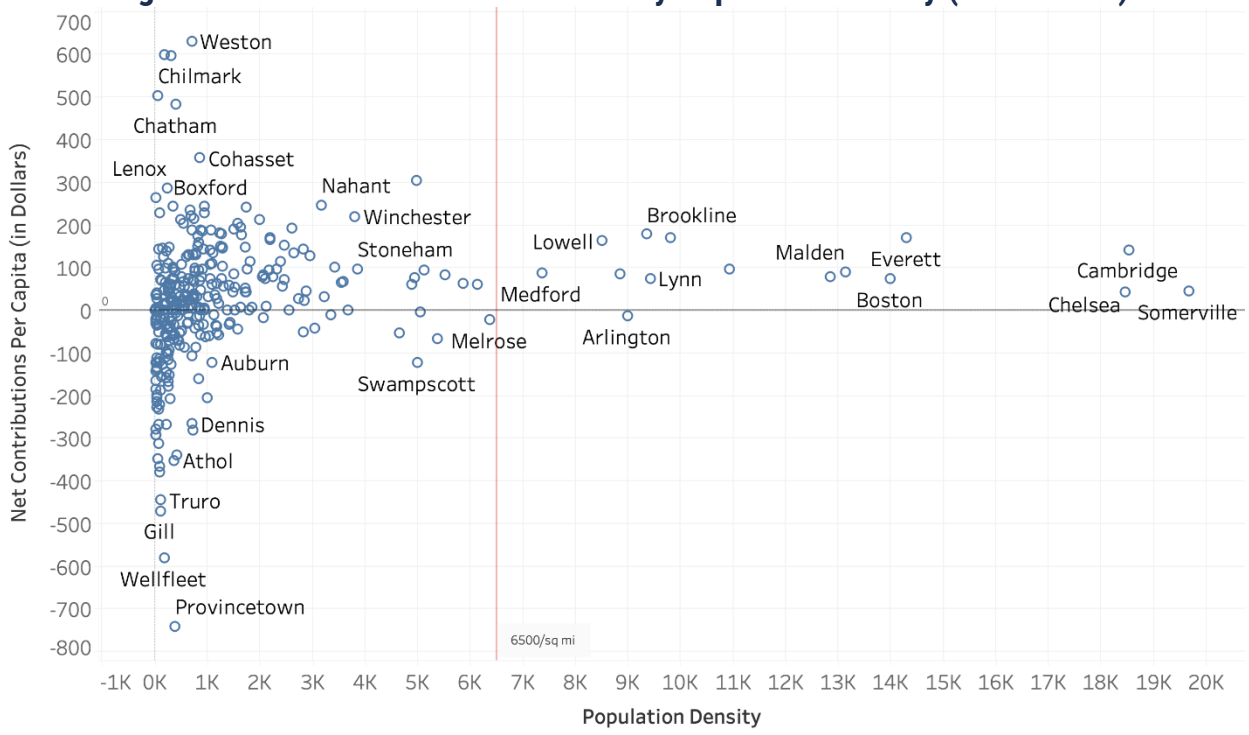
	Net Contribution	Total Population	Net Contribution per Capita
Residents of GCs	$142,874,125	1,837,313	$77.76
Residents of Non-GCs	$313,568,573	4,980,677	$62.96

3. Mass Save benef ts decrease as population density and percentage of renters increase: Only 7% (1 out of 15) of municipalities with high-density populations receive more benef ts from Mass Save than they contribute to Mass Save, and only 8% (10 of the 126) of municipal net benef ciaries are above the state average for renter-occupied housing.

Municipalities with higher population densities tend to contribute more per capita in EECs to Mass Save. Figure 8 shows that all cities and towns with a population density over 6,500 residents per square mile (except for Arlington) contribute more money than they receive.[55] In other words, the residents of net contributor municipalities tend to live in the larger, denser cities. In Figure 8, nearly all municipalities to the right of the 6,500 residents per square mile reference line (those with greater housing density) are net contributors.

52. See Footnote 17.
53. See Brookings (2007), Reconnecting Massachusetts Gateway Cities: Lessons learned and an agenda for renewal, for a description from nearly two decades ago, and Institute for Global Sustainability (2021), Prioritizing Gateway Cities in Massachusetts' transition to renewable energy for a more recent assessment.
54. See full calculation in Footnote 6.
55. We chose 6,500 as a midpoint transition between the typical density of Massachusetts suburbs (1–3,000 persons per square mile) and urban areas (10–20,000 per square mile). An illustrative example is Melrose, which has approximately double the density of most suburbs, but only half the density of Boston.

Figure 8. Mass Save Net Contribution by Population Density (2019–2023)



We also want to highlight the correlation of Mass Save incentives with tenancy status. In 2021, approximately 37% of Massachusetts residents were renters while 63% were homeowners.[56] Renters lack legal control over property modifications and consequently have limited ability to reduce energy costs in properties they do not own.[57] Of the 126 net beneficiary municipalities, only 10 were above the state average for renter-occupied housing. In this analysis, *net beneficiary* municipalities are those that receive more in Mass Save benefits than their residents collectively contribute through energy bills, while *net contributor* municipalities contribute more than they receive in return. Notably, the majority of municipalities with fewer renters are net beneficiaries, whereas net contributor communities tend to have more renters. Figure 9 isolates all net beneficiary municipalities and suggests that municipalities with higher rates of home ownership are more likely to receive Mass Save money.[58]

56. Population density statistics are available from the US Census Bureau—see the estimate for "Owner-occupied housing unit rate, 2019-2023" at 62.6%.
57. See Mass Save. (2024, April 1). The Massachusetts 2025-2027 Energy Efficiency and Decarbonization Plan (Draft), p. 22.
58. This makes sense since renters cannot engage directly with Mass Save; their only recourse is to convince their landowners to sign off on a proposed Mass Save solution.

Figure 9. Mass Save Money Received by Renter Percentage (Net Beneficiary Communities Only) (2019–2023)

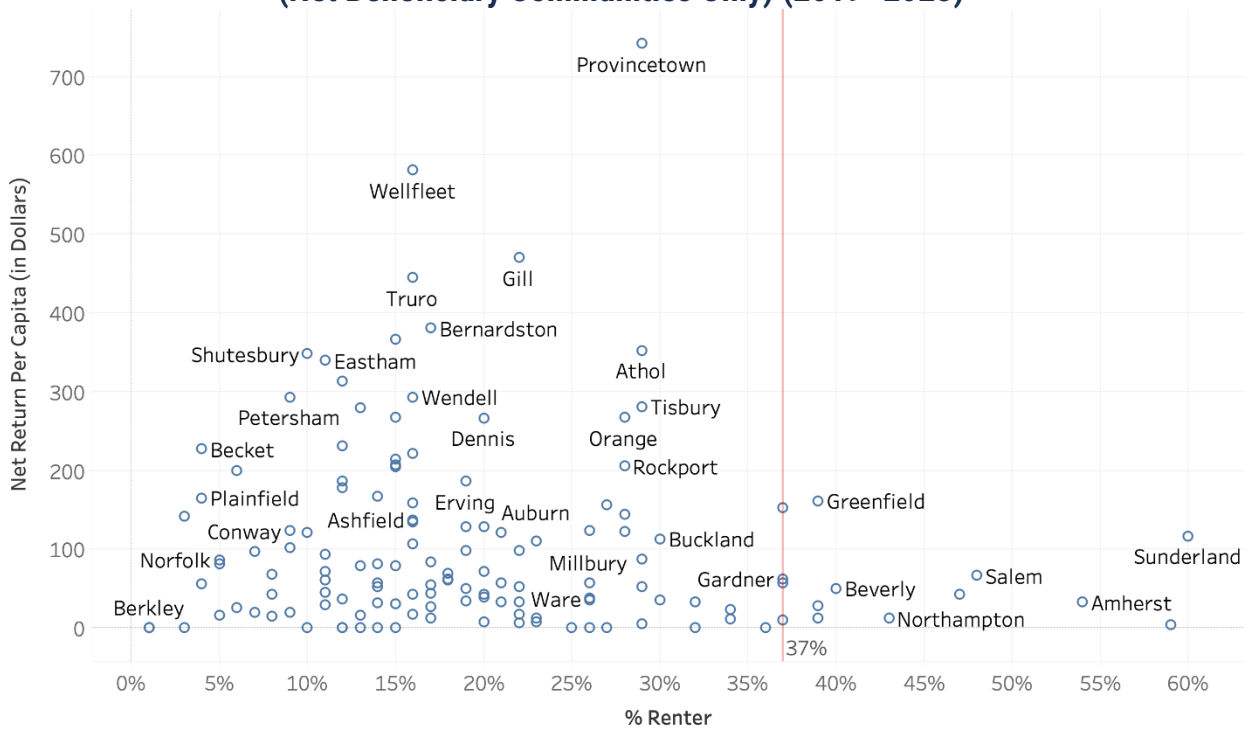
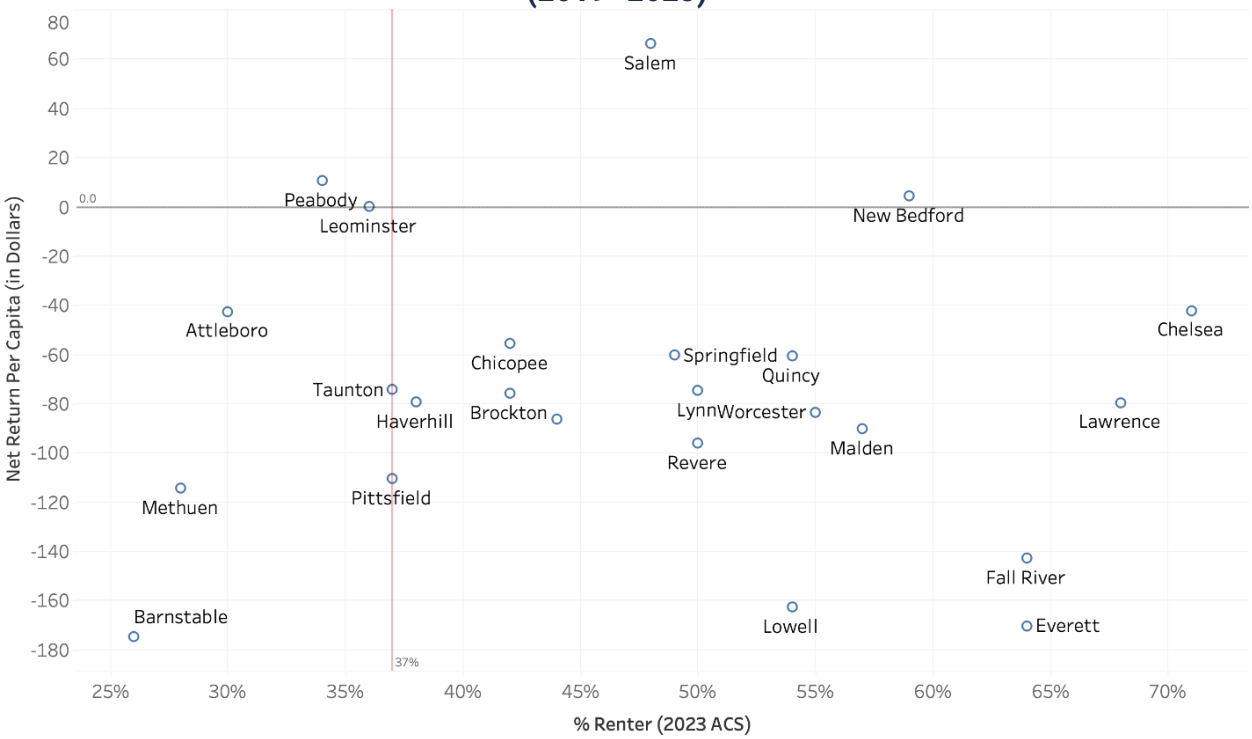


Figure 10 divides GCs into four categories: net contributors versus net beneficiaries (on the y-axis), and renter percentages above and below the state average (on the x-axis). The majority of GCs are in Figure 10's lower-right quadrant, representing net contributor cities with more renters than average. Only 3 GCs are net beneficiaries (Salem, New Bedford, and Peabody), and only 5 are below the state average in terms of renter percentage (Leominster, Peabody, Attleboro, Methuen, Barnstable). Of the 24 GCs for which data is available (see Data Overview for more information), 19 have a renter percentage greater than the state average of 37%, with 11 of the 19 having 50% or more residents renting. These higher renter percentages likely play a role in the disparity in net contributions to Mass Save between GCs and non-GCs.

Figure 10. Mass Save Net Return per Capita by Renter Percentage (GCs Only) (2019–2023)



4. Utility bills lack transparency regarding required Mass Save contributions (energy efficiency charges).

In Massachusetts, utility bills are itemized according to MGL Chapter 164, Section 1D, which stipulates that all electric and gas bills sent to retail customers must be unbundled to separately reflect the rates charged for generation, transmission, and distribution services, as well as any other charges included in the total retail price.[59] However, Mass Save charges may be bundled into transmission and distribution services on gas bills, and even when they are itemized separately on electricity bills, they are listed as an energy efficiency charge (EEC) with no reference to Mass Save. Pursuant to DPU Orders 24-140 through 24-149, EECs are to be separately itemized on gas bills beginning in November 2025.[60] Currently, on gas bills, Mass Save represents a part of the distribution adjustment charge (a blanket category covering a large range of operational and regulatory costs), as opposed to being listed on its own. Figures

59. See MGL Chapter 64, Section 1D (1997).
60. Department of Public Utilities. 2025-2027 Three Year Plan Order. February 28, 2025. See discussion on current itemization on pages 255–257 and order on new gas bill itemization on page 259.

11 and 12 are examples of Eversource electricity and gas bills illustrating the above-mentioned issues.[61]

Figure 11. Billing Portion of an Eversource Electricity Bill (February 2025)

Total Charges for Electricity		
Supplier		
Meter		
Generation Service Charge	162 kWh X .14840	$24.04
Subtotal Supplier Services		$24.04
Delivery		
R1-Residential Non-Heating		
Meter		
Customer Charge		$10.00
Distribution Charge	162 kWh X .09405	$15.24
Transition Charge	162 kWh X -0.00095	-$0.15
Transmission Charge	162 kWh X .04545	$7.36
Net Meter Recovery Surcharge	162 kWh X .01622	$2.63
Revenue Decoupling Charge	162 kWh X -0.00085	-$0.14
Distributed Solar Charge	162 kWh X .00431	$0.70
Renewable Energy Charge	162 kWh X .00050	$0.08
Energy Efficiency Charge	162 kWh X .03111	$5.04
Electric Vehicle Program	162 kWh X .00138	$0.22
Subtotal Delivery Services		$40.98
Total Cost of Electricity		**$65.02**
Total Current Charges		**$65.02**

61. In addition to the information on bills, providers maintain explanatory webpages. See Eversource's webpages for electricity bills here and for gas bills here.

Figure 12. Billing Portion of an Eversource Gas Bill (February 2025)

Total Charges for Gas		
Supplier (Eversource)		
Meter R046675		
Supplier Services	183 Therms X .76390	$139.79
Subtotal Supplier Services		$139.79
Delivery		
R3-Residential Heating		
Meter R046675		
Customer Charge		$10.00
Distribution Charge	183 Therms X .67550	$123.62
Revenue Decoupling Charge	183 Therms X .05790	$10.60
Distribution Adjustment Charge	66 Therms X .87550	$57.78
Distribution Adjustment Charge	117 Therms X .87680	$102.59
Subtotal Delivery Services		$304.59
Total Cost of Gas		**$444.38**
Total Current Charges		**$444.38**

Overall, utility bills remain unnecessarily opaque due to unfamiliar terminology and a lack of clear itemization, leaving many ratepayers unsure of what they are actually paying for. While the bills break down charges into supply and delivery components, key fees are labeled with technical or vague terms that provide little meaningful information to the average consumer. The connection between the EEC and Mass Save is not explicitly stated on most bills, making it difficult for customers to understand what their contribution is funding. Similarly, the distribution adjustment charge, which appears on gas bills, is poorly explained on utility providers' websites. Without clearer descriptions and better itemization, many utility bills remain opaque, preventing consumers from making informed decisions about their energy use and costs.

POLICY RECOMMENDATIONS

While Mass Save's mission is to further the Commonwealth's energy efficiency goals, the implementation of its programs has resulted in disproportionate advantages for residents of higher-income municipalities, mainly through an allocation of incentives whose effect is inequitable. For the 2019–2023 period, we found that many residents of lower-income municipalities and municipalities with higher renter percentages have effectively subsidized the energy improvements for residents of net benefit municipalities, which are generally higher-income municipalities that receive more benefits from Mass Save than they contribute to Mass Save.

Furthermore, densely populated urban areas with lower-income households, notably those classified as GCs, bear a heavier financial burden while reaping fewer rewards from the program. This skewed distribution of benefits leads to inequitable outcomes and underscores the need for reevaluating how funding is allocated. The following recommendations present several policy changes which, if implemented, may ensure more equitable access to Mass Save benefits for residents of the Commonwealth.

1. Utility companies should not administer Mass Save.

Public utilities in Massachusetts receive compensation for the transmission and distribution of electricity and natural gas to residents and businesses across the Commonwealth. They are paid for these services on a per unit basis, meaning that they are paid more for each unit of electricity or natural gas they deliver. While their compensation does not directly flow from the commodity (i.e., electricity or natural gas), it is directly linked to how much commodity is used; essentially, the more they deliver, the more money public utilities make.

In July 2008, DPU introduced revenue decoupling to reduce or eliminate the inherent financial disincentive and conflict of interest regarding Mass Save's goal of energy efficiency.[62] Revenue decoupling is a mechanism that separates electric and natural gas utilities' revenues from customer sales. That is, regardless of the volume of sales, utilities collect the same amount of revenue. In theory, revenue decoupling removes a financial disincentive to promote energy efficiency and conservation, which would otherwise lead to reduced sales, revenue, and earnings.

It is important to recognize that while revenue decoupling may remove a disincentive to implement energy efficiency and demand reduction programs that encourage customers to lower energy use, it still does not incentivize

62. See https://www.mass.gov/doc/20080804decouplingdpurequestattachment1pdf/download.

public utilities, which get paid no matter the success or failure of those programs. This lack of incentive may have a negative impact on the companies' commitment to diligently execute the requirements of the Mass Save program. The issues identified in this report regarding participation by renters, residents of EJ communities, and those in GCs are not new. These problems have been known and persisted for some time, without resolution. These difficult problems could be easier to solve if those charged with administering the program were appropriately incentivized to deliver on Mass Save's mission.

To resolve this issue with the goal of improving the Mass Save program and helping to ensure public confidence in this program, it is recommended that the Commonwealth consider moving the administration of Mass Save to an independent entity without a direct financial interest tied to use, consumption, and delivery. Such an entity should exist solely to implement energy efficiency, demand reduction programs, encourage customers to lower energy use and demand, and lower energy costs for consumers. It is critical that this program be focused on its mission, structured appropriately, and administered effectively, without the significant financial overhead charged to the program by utilities. For example, Mass Save diverts a large portion of its budget (over 30%, according to available data) from direct energy improvements to marketing, outreach, training, administration, and the incentive payouts to utility companies for meeting goals, which are sometimes self-set. Independent administration of Mass Save, including by public procurement of an administrator, should help reduce these significant overhead costs that reduce the program's financial resources, to the detriment of investments in energy efficiency in Massachusetts homes and businesses.

2. The Legislature should consider oversight hearings.

Over the four-year 2019–2023 period, the administrative costs for Mass Save exceeded $1.6 billion, for an average cost of $407.1 million per year. For context, if the administration of Mass Save were a state government agency, it would be the 26th largest agency by cost, larger than every state college, all of the Commonwealth's environmental agencies, and most other state government agencies. Including the program's nonadministrative costs, Mass Save's $1.33 billion average annual cost would make it the 12th largest state government agency. Currently, Mass Save is not a governmental agency; however, it does pursue public goals and is funded by ratepayers under the authority of state law.

Given the size, scope, and importance of Mass Save—as well as the problems identified in this report and by others with the program—we recommend that the Legislature use its authority to provide appropriate oversight, including

holding hearings regarding the program. Mass Save provides critical services that should help ratepayers and protect our environment; it is imperative that these services be well structured to ensure that the Commonwealth's public purposes are met in an effective, efficient manner that is in the public's interest. Oversight hearings would create an appropriate forum for these and other issues to be considered and addressed.

Historically, notwithstanding its mandate to ensure broad-based participation in its programs, Mass Save has overlooked nuances of socioeconomic diversity. High-income households are often in a better position to invest in energy upgrades, such as installing solar panels or upgrading insulation, and thus they are more likely to take advantage of the rebates and incentives provided. In contrast, low-income renters live in properties where the property owners, not the renters themselves, control decisions about energy upgrades. This imbalance highlights the need for policy adjustments that reflect the economic realities of different population segments.

As part of its oversight of Mass Save, we recommend that the Legislature consider the aforementioned imbalances and disparities within Mass Save; particularly, with regard to low-income households, who generally contribute more to Mass Save than they receive in return. Low-income households should not subsidize Mass Save for higher-income households.

Additionally, the Legislature could consider establishing a minimum investment floor for municipalities with high renter percentages, requiring that a minimum amount of program funding be spent in such municipalities in order to address low renter participation rates. Such a policy would help in both distributing benefits to municipalities whose residents have historically had a comparatively lower rates of return on their contributions to Mass Save and also increasing municipal and community engagement in helping solve the issue of renter participation.

3. Solve the issue of renter participation.

It is well established that renters participate in Mass Save at a rate much lower than homeowners. This report has provided additional insight into this, including the negative and inequitable impact of this dynamic on GCs, EJ communities, and lower-income residents. The underlying reasons for this lack of participation are doubtless complex, with the most central of these likely being the lack of incentive for landowners to pay part of the cost for modifications to their properties when all the financial benefits accrue to their tenants.

A variety of methods could be considered to provide landowners with an incentive to make these improvements. We recommend that the Executive and Legislative branches consider this matter and develop an incentive package to address this issue. As shown in this report, the impact of not solving this issue is significant from financial and equity perspectives, as well as from the standpoint of confidence in our state government. It is critical that all residents be provided with the opportunity to benefit from the money they spend on public and near-public services such as Mass Save. At present, we know that some subgroups do not—and functionally cannot—participate, but yet they must pay into a system we know they cannot benefit from. This only increases opposition and resistance to a program that has made significant environmental investments across Massachusetts while seeking to save money for ratepayers.

4. Increase transparency.

As described in this report, utility bills lack transparency regarding Mass Save charges, as well as regarding charges for a number of other items on utility bills. It is recommended that the Commonwealth require plain-language billing that is comprehensible to ratepayers, printed directly on the bill as either a line item or a quick-response code (more commonly known as a QR code) or some other hyperlink that directs ratepayers to plain-language explanations for billing items. Many of the cost items on utility bills are required by state government. These costs should always be clear and understandable to the public, whose officials mandated these charges, using the policymaking authority granted to them by the public.

In order to promote increased transparency on utility bills, the Commonwealth should prohibit bundling charges and instead require itemization of all bill components, including the Mass Save charges on gas and electric bills. In general, any taxes, government-mandated fees, and environmental surcharges should be explicitly labeled, allowing consumers to easily identify what portion of their bill is determined by regulatory requirements. Adjustments, credits, or rebates should be identified, particularly in cases where they offset other charges.

Additionally, utility bills should provide ratepayers with more data about use. Currently, utility bills include comparisons with previous use just for the entire amount due. Instead, the Commonwealth should consider measures to increase transparency, such as requiring monthly comparisons for each line in the standardized breakdown of charges. Notably, during the 2024–2025 winter utility bill crisis, there was widespread confusion regarding the significant

increases to residents' utility bills, which generated considerable grassroots support for more billing transparency.[63]

Data and access to data are critical to transparency. DPU, as part of its oversight of Mass Save, should require Mass Save to upgrade its data portal with timely and complete datasets going forward. PAs have not been required until the present time to make their full data public, including the disclosure of geographic distribution of contributors and beneficiaries. However, the 2025–2027 plan contains new and important requirements, most notably the provision of municipal-level data, including the total number of customers, the total amount of EEC (in dollars) paid by customers, and the total number of incentives provided by the program, on a yearly basis.[64]

While a Mass Save data portal does currently exist, it is both outdated and not presented in a way that is easily understandable to the general public.[65] Massachusetts's Mass Save program currently lacks sufficient transparency and accountability, jeopardizing public trust. In order to address this deficiency, the Commonwealth may want to consider approaches used by other states' energy efficiency programs. For example, New York updates a comprehensive Clean Energy Dashboard each quarter, aggregating electric and gas utility efficiency program results into interactive, easy-to-understand visuals.[66] Likewise, California uses a centralized reporting system (known as CEDARS) that provides up-to-date visibility into the state's efficiency program's savings, budgets, and cost-effectiveness, with PAs submitting data through uniform templates on a monthly and quarterly basis. CEDAR's built-in quality checks ensure that the reported results are complete and reliable.[67] Vermont's model goes further by emphasizing data completeness and credibility—Efficiency Vermont delivers granular annual reports that are rigorously verified, and state law even mandates an independent audit of reported savings every three years to validate accuracy.[68]

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[63] Levine, Molly. *Massachusetts lawmakers pressured as residents demand transparency on utility bills*. NBC 10 News.
[64] Department of Public Utilities. 2025-2027 Three Year Plan Order. February 28, 2025. See p. 179.
[65] See masssavedata.com
[66] New York State Energy Research and Development Authority (NYSERDA), Clean Energy Dashboard, accessed April 20, 2025, https://www.nyserda.ny.gov/About/Tracking-Progress/Clean-Energy-Dashboard
[67] California Public Utilities Commission (CPUC), California Energy Data and Reporting System (CEDARS), accessed April 20, 2025, https://cedars.sound-data.com/
[68] Vermont Public Utility Commission. Report to the Vermont Legislature: Independent Audit of the Reported Energy and Capacity Savings and Cost-Effectiveness of Vermont Energy Efficiency Utility Programs. August 23, 2023. https://puc.vermont.gov/sites/psbnew/files/doc_library/2023-independent-audit-report-to-legislature-reported-energy-capacity-savings.pdf

Additionally, the Commonwealth should consider options to capture participation metrics in order to appropriately evaluate Mass Save. For example, Mass Save may be able to track ratepayer engagement with its programs, including measuring how many people of various socioeconomic profiles participate in specific programs such as residential weatherization, improvements to heating, ventilating, and air-conditioning (more commonly known as HVAC), or language-access services. Mass Save has doubled its statewide budget for its low-income program from the previous cycle, with $1.2 billion scheduled over 2025–27.[69] However, increasing the budget does not itself address the program's systemic issues, such as increasing renter participation. Currently, Mass Save tracks income metrics but does not systematically collect demographic information from individual customers (such as age, race, ethnicity, or preferred language).[70] Instead, Mass Save analyzes publicly available data sources, like the US census, to infer demographic characteristics at the community level.

Guidance from the Massachusetts Department of Public Health encourages the collection of such data to improve service delivery and address distribution disparities in state programs.[71] Collecting this information could help Mass Save tailor its services more effectively to meet the needs of diverse populations.

Finally, Mass Save should consider upgrading its complaint process by funding a separate, dedicated, and easily accessible system for participants to report issues related to Mass Save programs, services, and vendors. This complaint mechanism should be fully compliant with the Americans with Disabilities Act and include robust language-access capabilities to ensure equitable access for all residents, regardless of ability or language proficiency. To enhance transparency and accountability, an independent entity should collect and publicly share complaint data, highlighting trends and actions taken. This information should also be shared with the Massachusetts Attorney General's Office, which has oversight responsibilities related to consumer protection and program integrity. This approach could ensure that residents' concerns are heard and addressed.

[69] As of the 2025-2027 plan, such communities are defined as those having at least 35% renters, at least 8,000 total renters, and being at least 50% low- and moderate-income. Mass Save. (2024, April 1). The Massachusetts 2025-2027 Energy Efficiency and Decarbonization Plan (Draft), p. 105.
[70] Mass Save. (2024, April 1). The Massachusetts 2025-2027 Energy Efficiency and Decarbonization Plan (Draft), p. 275 and following.
[71] See Massachusetts Department of Public Health. Making CLAS Happen: Six Areas for Action. Boston: Massachusetts Department of Public Health, 2008. https://www.mass.gov/lists/making-clas-happen-six-areas-for-action

CLOSING

Mass Save has undoubtedly advanced energy efficiency in Massachusetts. Yet, lower-income households and renters—particularly in GCs and EJ municipalities—too often pay into a system that yields little or no benefit to them, while ultimately benefiting people with more resources. An inequitable distribution of incentives undermines Mass Save's mission of broad-based participation—"empower[ing] residents, businesses, and communities to make energy efficient upgrades"—while also perpetuating economic disparities across the Commonwealth. To address these challenges, DLM proposes the following four core strategies.

1. Utility companies should not administer Mass Save.

To address persistent participation gaps—particularly among renters, EJ communities, and residents of GCs—this report recommends shifting Mass Save's administration to an independent entity, whose mission is to implement energy-efficiency measures and lower consumer bills without any financial stake in energy delivery or commodity sales.

2. The Legislature should consider oversight hearings.

With administrative costs averaging over $400 million per year (and total program costs exceeding $1.3 billion), Mass Save functions like one of the Commonwealth's largest state government agencies; yet, it is neither structured nor overseen as a government body. This report urges the Legislature to consider using its oversight authority by holding hearings that examine Mass Save's design, budgets, and equity outcomes. In particular, lawmakers may wish to scrutinize the program's socioeconomic imbalances—where lower-income households and renters often subsidize upgrades they cannot access—and explore policy levers such as minimum investment floors for high renter municipalities to ensure that funds flow to communities with historically low participation.

3. Solve the issue of renter participation.

Renters participate in Mass Save at a rate much lower than homeowners. State government should examine incentives such as tax credits and direct allocation from Mass Save's budget to support more equitable opportunities for energy-efficiency improvements at rental properties. Mass Save revenue should be more equitably reinvested into communities that pay into the program. Addressing renter participation is critical not only with respect to financial fairness, but also to bolster public confidence in Mass Save by ensuring that every ratepayer can fully benefit from the program that they are required to finance.

4. Increase transparency.

Utility bills currently obscure how much customers pay for a number of mandated charges. This report recommends requiring plain-language descriptions and mandating full itemization of all components (e.g., fees, surcharges, taxes, and credits) so that consumers can readily see what they are paying and why. This report also calls for more robust use of data, modernization of the Mass Save data portal, and other improvements to enhance accountability and trust.

Implementing necessary reforms demands close collaboration among state government entities, local authorities, and community-based organizations. Without decisive action, Mass Save risks exacerbating existing inequities and forfeiting the environmental and economic gains that come from truly inclusive energy programs. Mass Save needs significant reforms to meet the needs of all ratepayers, especially those historically overlooked, with respect to its mission to "empower residents, businesses, and communities to make energy efficient upgrades by offering a wide range of services, rebates, incentives, trainings, and information."

APPENDIX A: MASS SAVE BUDGETS, 2010–2027

This table lists the proposed budgets for Mass Save for all three-year planning cycles. Note that approved budgets differ from actual spending, which may be higher or lower than planned; however, any carry-overs are integrated into the subsequent plan, and consequently, the approved budgets do reveal an overall accurate picture over time. Also note that on February 28, 2025, DPU cut the listed 2025–2027 amounts by around 25% for gas and 15% for electricity plans (see the table note below—starting with Borkhetaria, B.—for more information). Further adjustments may occur (however, they would not reflected in the table below).

Year	Gas PA Budget	Gas: Budget Rate Increase from 2010	Gas: Percentage Budget Rate Increase from Previous Year	Electricity PA Budget	Electricity: Budget Rate Increase from 2010	Electricity: Percentage Budget Rate Increase from Previous Year
2010	$88,372,017	0%	0%	$293,828,994	0%	0%
2011	$118,080,499	34%	34%	$431,251,209	47%	47%
2012	$148,864,177	68%	26%	$546,821,481	86%	27%
2013	$177,725,110	101%	19%	$528,533,859	80%	-3%
2014	$185,261,409	110%	4%	$560,741,564	91%	6%
2015	$191,859,597	117%	4%	$602,196,367	105%	7%
2016	$223,177,995	153%	16%	$632,016,791	115%	5%
2017	$227,848,561	158%	2%	$655,272,530	123%	4%
2018	$234,289,459	165%	3%	$673,513,821	129%	3%
2019	$259,494,054	194%	11%	$636,528,050	117%	-5%
2020	$267,178,315	202%	3%	$671,092,452	128%	5%
2021	$272,803,235	209%	2%	$663,070,398	126%	-1%
2022	$363,816,053	312%	33%	$744,740,610	153%	12%
2023	$403,145,122	356%	11%	$871,489,861	197%	17%
2024	$445,801,387	404%	11%	$1,120,326,808	281%	29%
2025*	$573,169,627	549%	29%	$1,007,043,430	243%	-10%
2026*	$613,287,108	594%	7%	$1,106,556,239	277%	10%
2027*	$671,491,199	660%	9%	$1,218,173,375	315%	10%

* Borkhetaria, B. (2025, March 4). The $500 million cut to Mass Save budget is 'short-sighted,' climate activists say. Commonwealth Beacon.

APPENDIX B: RESOURCE/CONTACT LIST

The Massachusetts Department of Energy Resources

- Website: https://www.mass.gov/orgs/massachusetts-department-of-energy-resources
- Email: doer.energy@mass.gov
- Phone Number: (617) 626-7300

The Massachusetts Department of Public Utilities

- Website: https://www.mass.gov/orgs/department-of-public-utilities
- Email: DPUConsumer.Complaints@mass.gov
- Phone Number: (617) 305-3500
- Full List of Contacts: https://www.mass.gov/info-details/dpu-divisions-contact-information

The Massachusetts Energy Efficiency Advisory Council

- Website: https://ma-eeac.org/
- Email: MA-EEAC@mass.gov
- Web-Based Contact Form: https://ma-eeac.org/public-comment/

The Executive Office of Energy & Environmental Affairs

- Website: https://www.mass.gov/orgs/executive-office-of-energy-and-environmental-affairs
- Email: env.internet@mass.gov
- Phone Number: (617) 626-1000

The Massachusetts Governor's Office

- Website: https://www.mass.gov/orgs/governor-maura-healey-and-lt-governor-kim-driscoll
- Email: constituent.services@state.ma.us
- Phone Number: (617) 725-4005

The Massachusetts Attorney General's Office

- Website: https://www.mass.gov/orgs/office-of-the-attorney-general
- Phone Number: (617) 727-8400
- File a Consumer Complaint: https://www.mass.gov/how-to/file-a-consumer-complaint

The Massachusetts State Legislature

- Website: https://malegislature.gov/
- Phone Number: (617) 722-2000
- How to Find Your Legislators: https://malegislature.gov/Search/FindMyLegislator

APPENDIX C: ACKNOWLEDGEMENTS

This report was prepared for the Office of State Auditor Diana DiZoglio, by George Chichirau, Supervising Analyst for the Division of Local Mandates

with support from

the Office of the State Auditor's Executive Team, Editing Assistance Unit, Data Analytics Unit, and DLM.

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State Auditor Diana DiZoglio serves as the chief accountability officer for Massachusetts state government and its residents.

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