



The Massachusetts 2025-2027 Energy Efficiency and Decarbonization Plan

October 31, 2024

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Executive Summary



The Massachusetts Program Administrators (PAs)¹ are proud to submit the 2025-2027 Energy Efficiency and Decarbonization Plan (Plan).² This almost \$5 billion investment, including \$1.9 billion in equity-related investment, represents a significant step toward the achievement of the Massachusetts 2030 climate goals for the building sector and in support of our efforts to ensure that residents and businesses across the Commonwealth benefit from the Mass Save® programs.

To accomplish these outcomes, we are introducing a set of bold, new solutions designed to improve the customer experience and reduce barriers that impact participation, particularly for underserved communities and customers. The collaboratively developed activities and offerings within the Plan represent a meaningful commitment to equity and distributive justice and to continuous improvement through learning and engagement. We are deeply grateful to the Energy Efficiency Advisory Council (EEAC), including the Equity Working Group (EWG), the Department of Energy Resources (DOER), the Attorney General's Office (AGO), the public, our implementation and community partners, and our trade allies for their feedback and support in developing the Plan and without whom implementation of the Mass Save programs would not be possible. We look forward to continued collaboration as we work to implement these efforts. We also thank the Department of Public Utilities (Department)³ for their commitment to ongoing regulatory supervision and guidance.

¹ The PAs are: The Berkshire Gas Company, Cape Light Compact JPE (the Compact), NSTAR Electric Company, NSTAR Gas Company, and Eversource Gas Company of Massachusetts, each d/b/a Eversource Energy, Liberty Utilities Corp. (New England Natural Gas Company) d/b/a Liberty, Massachusetts Electric Company, Nantucket Electric Company, Boston Gas Company, each d/b/a National Grid, and Fitchburg Gas & Electric Light Company d/b/a Until. The Program Administrators may be referred to as the "PAs", the "Massachusetts PAs", or the "Program Administrators" throughout this document.

² The 2025-2027 Energy Efficiency and Decarbonization Plan may be referred to as the "2025-2027 Plan", the "Three-Year Plan", or the "Plan" throughout this document.

³ The Massachusetts Department of Public Utilities may be referred to as the "Department," "DPU," or "D.P.U." throughout this document.

By the Numbers

The 2025-2027 Plan builds on more than two decades of customer investment in energy efficiency and electrification in the Commonwealth. These nation-leading programs support approximately 76,000 high-quality, energy efficiency and electrification jobs in Massachusetts.⁴

What We've Done Since 2013, we have:	What We're Going To Do Under the 2025-2027 Plan, we aim to:
 Supported the installation of heat pumps in over 75,000 homes and businesses (since 2019), including 6,100 low-income households.	Support the installation of heat pumps in an additional 119,000 households, including over 23,000 low- and moderate-income households and more than 15,000 rental units.
 Weatherized approximately 350,000 homes, including 70,000 low-income households.	Weatherize more than 184,000 homes, including over 75,000 low- and moderate-income households and more than 51,000 rental units.
 Reduced greenhouse gas (GHG) emissions by 3.7 million metric tons of carbon dioxide equivalent (CO₂e), the same as taking 800,000 cars off the road for a year.	Reduce GHG emissions by 1.0 million metric tons of CO₂e.
 Delivered over 153 million megawatt-hours (MWh) and 4.7 billion therms in energy savings, equivalent to the average annual output of five Brayton Point power plants, as well as \$31 billion in total benefits to customers.	Deliver 8.3 million MWh and 1.1 billion therms in energy savings and \$13.7 billion in total benefits to customers, including more than \$4.4 billion in equity benefits.
 Invested \$1.1 billion in improvements that lower energy bills and improve health, safety, and comfort for low-income households.	Invest \$1.9 billion in equity-related efforts, including \$1.3 billion in incentives paid for low- and moderate-income customers and over \$615 million for renters.
 Provided \$6.7 billion in customer incentives.	Provide over \$3.4 billion in customer incentives.

⁴ Massachusetts Clean Energy Center, "2023 Massachusetts Clean Energy Industry Report," at 17.

How We Are Going To Do It



Reduce greenhouse gas emissions

1. Drive electrification of new and existing buildings, including by supporting installation of heat pumps in 119,000 homes
2. Weatherize over 185,000 homes and small businesses, including significant enhancements to help small businesses access and benefit from available programs
3. Support GHG reductions for commercial and industrial (C&I) customers via decarbonization planning and existing building commissioning
4. Identify new measures and innovative approaches specifically designed to reduce GHG emissions in commercial buildings
5. Introduce a coordinated approach to joint electrification funding and customer engagement between electric and gas PAs
6. Reduce the costs of the programs to customers by pursuing outside funding and other cost control measures



Accelerate program access for vulnerable and underserved customers

1. Increase electrification and continue to expand access to weatherization for low-income customers
2. Increase moderate-income customer participation by reducing barriers to qualification, expanding the offer to moderate-income renters (in addition to homeowners), eliminating out-of-pocket costs for weatherization and electrification, resolving health and safety barriers, and improving the customer experience
3. Increase participation for residential renters and rental properties, with a particular focus on designated equity communities
4. Expand participation pathways for small business renters, leased properties and landlords
5. Support energy efficiency and electrification improvements in schools across the Commonwealth, with a particular focus on environmental justice communities
6. Continue to partner and invest in communities as a foundational strategy for reaching underserved customers
7. Enhance support for customers who prefer to be served in a language other than English (LOTE customers)⁵

⁵ A person who prefers to be served in a language other than English, or LOTE customer, refers to any individual who speaks, reads, writes, or understands a non-English language and has a language access need. The term LOTE is growing in usage within the language access industry and was identified as a preferred term by people who self-identify as such. We will utilize "LOTE customer" throughout this Plan document in lieu of the previously used terms of non-English speakers, English-isolated customers, and Limited English Proficiency.



Deliver an improved customer experience

1. Provide holistic, multilingual support for all customers via creation of a statewide contact center
2. Ensure timely rebate processing and continuous improvement in the rebate processing experience
3. Improve the customer experience for electrification, starting with low- and moderate-income customers and renters in designated equity communities
4. Standardize the C&I custom project pathway tools and requirements to create a consistent customer experience
5. Invest in digital enhancements and improved reporting



Strengthen and diversify the workforce

1. Collaborate with the Massachusetts Clean Energy Center to increase workforce diversity, doubling annual funding to \$24 million per year
2. Increase supplier diversity, including through adoption of an aspirational benchmark to spend 15% of dollar volume of direct Mass Save contracts with diverse suppliers
3. Expand and strengthen a robust heat pump installation workforce via the Heat Pump Installer Network and ensure delivery of high-quality installations in both homes and businesses via contractor management and training
4. Expand C&I training opportunities, with a focus on integrating building controls and electrification

What's New?

Major enhancements for the 2025-2027 Plan include:

Decarbonization

- Redesigned Home Energy Assessments that provide customers with recommendations and opportunities for pursuing decarbonization of their homes.
- A simplified customer experience to drive greater adoption of electrification through a managed delivery option for installation of heat pumps, starting first with moderate-income customers and renters in designated equity communities.
- New technical assistance offerings for commercial customers to support near-term existing building commissioning and long-term decarbonization planning.
- Incentives for new measures that produce meaningful GHG savings for medium and large commercial customers, such as refrigerant leak mitigation and retrofits and behind-the-meter gas leak mitigation, and incentives for both commercial customers and residential new construction associated with reducing embodied carbon in construction materials.
- Creation of a coordinated, statewide approach for joint delivery and funding of electrification.

Equity

- Continuation of expanded eligibility criteria for moderate-income customers by considering both state and area median income and by extending moderate-income offers to income-qualified renters.
- Increased barrier mitigation and electrification support for moderate-income customers and renters in designated equity communities, which will include a managed delivery model to reduce or eliminate out-of-pocket costs and reduce the time commitment required of customers.
- Significant expansion of efforts to drive low-income electrification. In collaboration with DOER, approximately \$72 million in federal Inflation Act Reduction funding to support electrification of low- and moderate-income customers.
- Accelerated delivery of weatherization and electrification improvements to low-income customers by expanding the list of qualified vendors and providing standalone income verification services.
- Increased funding and data access for Community First Partners.
- Targeted support for decarbonization of schools across the Commonwealth with a focus on environmental justice communities.
- Enhanced support for LOTE customers by working to provide comprehensive language access support throughout the customer journey.
- Collaboration with the Massachusetts Clean Energy Center to increase workforce diversity, doubling annual funding to \$24 million per year.
- Increased incentive support for small non-profits and small business renters.
- Efforts to increase supplier diversity, including through establishment of an aspirational benchmark to spend 15% of the dollar volume of direct contracts with diverse suppliers.
- Changes to the HEAT loan and the adoption of declining incentives to reduce the costs of the programs and free up funding to address equity priorities.

Customer Experience

- Provision of multilingual, holistic customer support for all residential customers and small businesses through the launch of a statewide contact center and continued expansion of a statewide client services center for low-income customers.
- Increased data transparency and reimagined reporting.
- Standardization of technical support for commercial customers.
- Enhanced focus on comprehensive projects for small businesses and ensuring all opportunities are identified during energy assessments.
- Streamlining the small business customer experience by ensuring contracted vendors can serve both the electricity and gas needs of a customer.

Reduce greenhouse gas emissions

The Global Warming Solutions Act, as amended, establishes a statewide goal to achieve net zero GHG emissions by 2050 and reduce GHG emissions at least 50 percent below 1990 levels by 2030.⁶ To help accomplish these goals, the 2030 Clean Energy and Climate Plan aims to reduce GHG emissions from residential and commercial heating and cooling equipment by weatherizing and electrifying buildings. The 2030 Clean Energy and Climate Plan recognizes the importance of the Mass Save programs to achieving this transition. Consistent with statewide efforts and the requirements of the Global Warming Solutions Act, the Secretary of Energy and Environmental Affairs (EEA Secretary) has established a GHG reduction goal for the 2025-2027 Plan of 1.0 million metric tons of CO₂e.⁷

We aim to deliver these GHG reductions through six key strategies:

1. Drive electrification of new and existing buildings, including by supporting installation of heat pumps in 119,000 homes

The 2022 Climate Act reinforced our decarbonization efforts by requiring the phase-out of support and incentives for fossil fuels under the Mass Save programs, except in extremely limited situations.⁸

The Plan makes electrification the default solution for all residential customers, where possible, and a cornerstone for achieving planned GHG reductions. To support these efforts, we will redesign Home Energy Assessments to provide customers with recommendations and opportunities to pursue decarbonization of their homes. In addition to supporting electrification of space and hot water heating and appliances (e.g., induction stoves, clothes dryers), assessments will also help inform customers about electrical upgrades required to support electrification, as well as opportunities to adopt electric vehicle charging and onsite renewable energy.

In the previous term, we laid the foundation for transforming the heating and cooling market by supporting the development of an ecosystem of heat pump installation contractors, manufacturers, and distributors necessary to support this work in the Commonwealth. In the 2025-2027 term, we will continue to build and strengthen this ecosystem with the goal of installing heat pumps in 119,000 housing units, including over 23,000 low- and moderate-income homes and more than 15,000 rental units. To improve the customer experience and reduce barriers to adoption, we will develop a managed (or “turnkey”) solution for residential customers who want to install heat pumps without having to identify and select a contractor themselves. Under this approach, customers will have the option to work with a single vendor provided through the programs to pursue weatherization, barrier mitigation, and electrification upgrades for their home. The vendor will manage each step of the process and the various subcontractors. Initially, we plan to start with moderate-income customers and renters in designated equity communities and then expand to market-rate customers near the end of the three-year term. We anticipate that the creation of this turnkey offering will help manage customers’ costs associated with decarbonization.

Additionally, we will provide the option for residential customers who choose to select their own installation vendor to pre-approve their heat pump projects before installation. Pre-approval will help to ensure that customers understand the eligibility requirements at the outset and install heat pumps that are subsequently eligible for incentives. Separately, we will offer virtual decarbonization consultations to help customers make informed decisions when they are considering installing a heat pump, including help comparing installation quotes. Finally, we will redesign the Residential New Homes & Renovations program to make all-electric construction the default option for new homes built in the Commonwealth.

⁶ See Acts of 2008, c. 298 (Global Warming Solutions Act) as amended by Acts of 2012, c. 209; Acts of 2018, c. 227 § 20; Acts of 2021, c. 8; Acts of 2022, c. 179.

⁷ See EEA Secretary’s Letter to the Program Administrators establishing a GHG emissions reduction requirement for Mass Save 2025-2027 Energy Efficiency Plans, Mar. 1, 2024.

⁸ See An Act Driving Clean Energy and Offshore Wind, Acts of 2022, c. 179, § 26 (2022 Climate Act).

2. Weatherize over 185,000 homes and small businesses, including significant enhancements to help small businesses access and benefit from available programs

Energy efficiency and weatherization are critical to reducing energy use and emissions, maintaining comfort, and minimizing customers' energy bills. Energy efficiency also provides the foundation to help manage the system costs of electrification by minimizing the extent of infrastructure investments resulting from the transition to electric heating and cooling. In accordance with our enabling authority, we will continue to pursue all available, cost-effective energy savings, with a primary focus on weatherization and building envelope improvements for over 185,000 homes and small businesses.

To drive adoption of weatherization in small businesses, we will bring in more weatherization vendors through our Customer Directed Option and work to upskill the vendor community to identify and deliver high-quality weatherization projects. Additionally, we will streamline the process for weatherization vendors by doing more prescriptive projects and making the custom projects easier to calculate with custom express tools available to the contractor community. Lastly, we will support more small business weatherization projects for customers who lease their facilities and for select nonprofit organizations by increasing incentives.



3. Support GHG reductions for C&I customers via decarbonization planning and existing building commissioning

We are committed to helping C&I customers decarbonize. As part of this Plan, energy assessments will cover both energy efficiency and electrification to help customers develop decarbonization roadmaps for their buildings. This strategy is focused on transitioning program participation from a widget, “plug and play” model to a comprehensive, strategic, portfolio-wide approach to optimizing energy use in building systems.

We will also help drive savings for medium and large C&I customers by introducing enhanced support for existing building commissioning. This effort will drive near-term savings by optimizing the performance of existing controls and equipment, while identifying opportunities, through a variety of assessments or engineering studies, to implement new capital measures such as control upgrades and building envelope improvements.

Additionally, we will introduce new services to support customers through portfolio-level assessments of buildings and through enhanced support for facilities that must comply with GHG reduction ordinances such as Boston's Building Emissions Reduction and Disclosure Ordinance (BERDO), Cambridge's Building Energy Use Disclosure Ordinance (BEUDO), and new statewide building energy reporting requirements for all other buildings over 20,000 square feet. For cities and towns that need additional help setting and meeting decarbonization goals in municipal buildings, we will offer financial support for communities to hire a dedicated municipal energy manager.

4. Identify new measures and innovative approaches specifically designed to reduce GHG emissions in commercial buildings

To help C&I customers advance further along the path to decarbonization, we will also incentivize measures that will result in meaningful GHG savings. Examples of these types of measures include refrigerant leak mitigation and retrofits and behind-the-meter gas leak mitigation. Additionally, we will also incentivize new measures for reducing embodied carbon in construction materials for both C&I customers as well as in residential new construction. In certain building types, these GHG reducing measures can be highly cost effective and can have shorter implementation cycles, helping customers make immediate progress in reducing emissions.

5. Introduce a coordinated approach to joint electrification funding and customer engagement between electric and gas PAs

We will implement a new statewide model to jointly fund and deliver prescriptive C&I and residential rebate electrification projects that will simplify and improve the customer experience and ensure that funding is available for customers of all fuel types who have an electric or gas account with at least one PA. Under this model, we will have a single, statewide rebate processing vendor for all PAs and implement cross-PA data sharing for customers of multiple PAs. This will reduce customer confusion and improve the customer experience by ensuring that residential customers get to the right person quickly when they need guidance or experience an issue with their rebate. This joint approach will also ensure that we can more seamlessly market to and educate our customers on electrification, regardless of heating fuel type or overlapping service territories.

We will incentivize new measures for C&I customers that will result in meaningful GHG savings, such as refrigerant leak mitigation and retrofits, behind-the-meter gas leak mitigation, and reducing embodied carbon in construction materials.

This new model will also allow for equitable sharing and allocation of costs, savings, and GHG emissions reductions between electric and gas PAs related to prescriptive electrification projects. This sharing will help mitigate cost-effectiveness issues related to gas-to-electric conversions. For commercial customers, study costs will also be shared, with reports housed in a central database accessible to both the electric and gas PA.

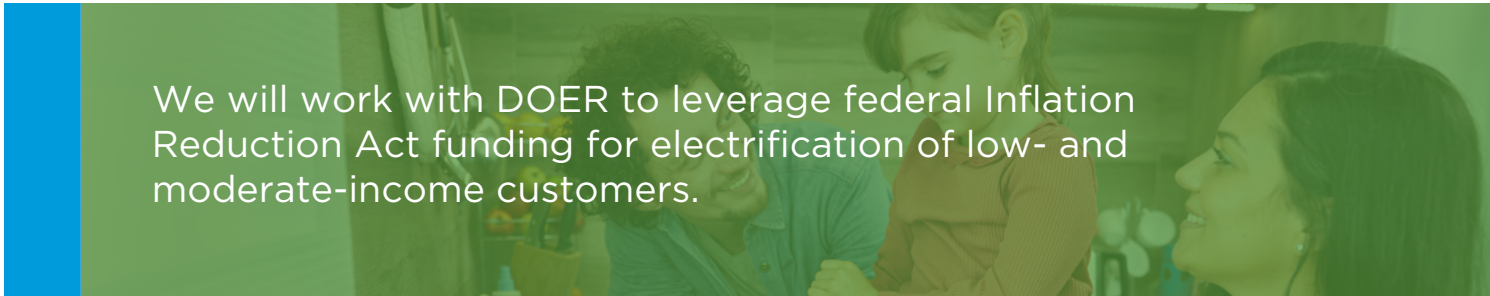
Additionally, customer engagement for C&I custom electrification projects will be led by the electric PA—eliminating the potential for overlapping outreach and confusion in joint service territories. This approach will also allow for equitable sharing and allocation of costs, savings, and GHG emissions reductions between electric and gas PAs related to custom C&I electrification projects.

6. Reduce the costs of the programs to customers by pursuing outside funding and other cost control measures

We are acutely aware that the cost of this Plan is substantial and will continue to aggressively pursue outside funding and contain costs to support our decarbonization efforts and reduce the burden on customers. The PAs will establish an outside funding working group with DOER, the AGO, and other key stakeholders to identify and pursue additional sources of funding for the programs and program participants. Sources of outside funding for the 2025-2027 term include, but are not limited to, proceeds from the Regional Greenhouse Gas Initiative auctions, revenues associated with participation in the Forward Capacity Market administered by the Independent System Operator in New England, federal funding for weatherization and emergency heating system replacements and repairs at low-income households, federal Inflation Reduction Act funding for electrification of low- and moderate-income customers, and federal bipartisan Infrastructure Investment and Jobs Act funding to install batteries for low- and moderate-income customers. The PAs also look forward to working with DOER and the Massachusetts Clean Energy Center to explore opportunities for co-delivery of solar with electrification in coordination with the Solar for All Initiative.

Increases in the interest rate, along with the high cost of electrification improvements, have significantly increased the costs of HEAT loans in the 2022-2024 term. In an effort to reduce HEAT loan costs, we have reduced the loan cap to \$25,000 per loan and created new, shorter loan terms for customers at higher incomes. Through means testing, the PAs will ensure that lower-earning households can continue to access the HEAT loan at a 0% interest rate over 7 years.⁹ We will also work to cross promote other financing opportunities with the Massachusetts Climate Bank in order to reduce the number of HEAT Loans and explore opportunities to negotiate an interest rate reduction with lenders relative to current levels and consider the potential for establishing risk mitigation mechanisms (including, but not limited to, a loan loss reserve) to help support such reductions. Further, we will also establish a stakeholder working group, which includes the AGO, DOER, and the Council Consultant team, to explore options for bringing down HEAT loan costs, including the potential for accessing outside capital.

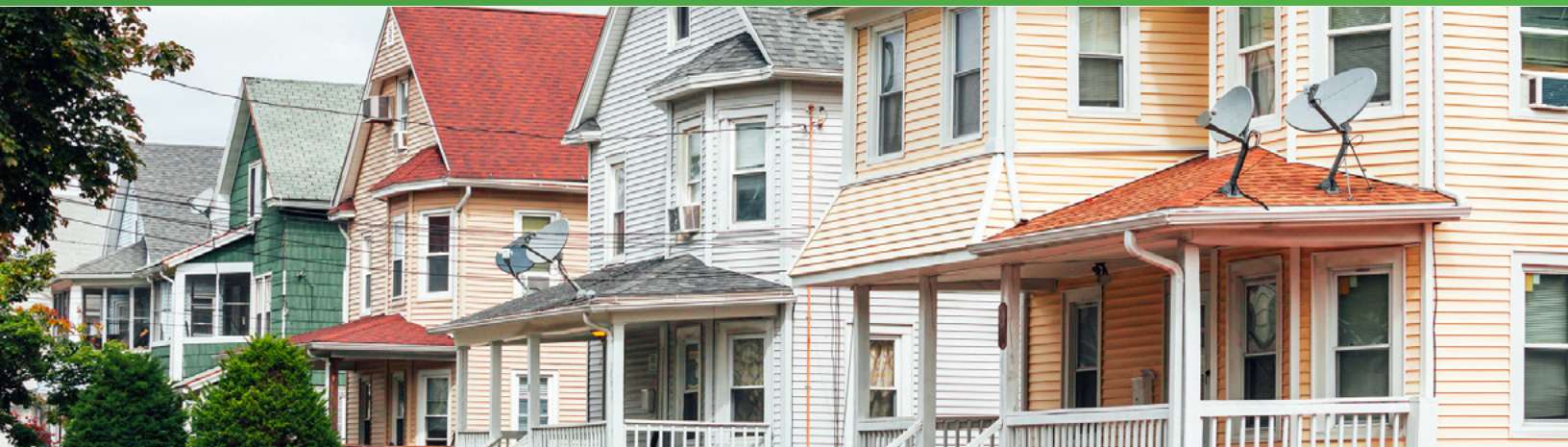
Additionally, we have adopted a declining incentive structure for residential heat pump incentives over the term with the goal of reducing prices paid by customers. As heat pumps achieve greater scale, we anticipate that the cost of delivering heat pumps will decline. These reductions will help control costs and free up budget for other equity-related Plan priorities. At the same time, we will also provide support for greater price transparency for heat pump installation jobs through the creation of an enhanced heat pump calculator—which should enable customers to choose the lowest cost offers that meet their needs. We will also utilize managed pricing to help minimize the costs associated with the new turnkey heat pump and barrier remediation delivery model and the expansion of no cost offers for moderate income customers and renters in designated equity communities. Finally, we will continue our existing efforts to minimize costs, including collaboration and sharing of resources, use of competitive procurements, and rigorous quality control and inspection efforts.



We will work with DOER to leverage federal Inflation Reduction Act funding for electrification of low- and moderate-income customers.

⁹ The PAs will continue to offer a 7-year repayment term at 0% interest for households earning from 81% up to 135% of state median income (“SMI”). Customer households earning 135% up to 300% of SMI and those earning above 300% of SMI will be eligible for 5-year and 3-year loan terms respectively at a 0% interest rate.

Accelerate program access for vulnerable and underserved customers



In this Plan, we expand on our commitment to equity and incorporate distributive justice as a key element of program design and implementation. Recognizing that there can be multiple definitions and uses of these terms, in the context of the decarbonization and energy efficiency services provided through the Mass Save programs, we define ‘distributive justice’ as a commitment to promoting fair and equitable distribution of benefits and burdens across all customers, upholding and prioritizing the needs of historically underserved customers burdened with economic challenges, racial inequality, negative environmental impacts, and justice disparities. For the 2025-2027 plan, we propose to invest \$1.9 billion for energy efficiency and electrification improvements for low-income customers¹⁰ and underserved communities and customer groups, including moderate-income customers, renters, LOTE customers, and small businesses, and deliver over \$4.4 billion in equity-related benefits. While we recognize that distributive justice is a work in progress, we believe that the activities and offerings proposed within this Plan represent a strong and meaningful commitment to equity and to continuous improvement. We are deeply grateful to all stakeholders, including the EWG, for their time, efforts and engagement during the Plan development process and look forward to remaining engaged with them during the coming term in order to meet the goals that we have laid out and to identify additional improvements in promoting the fair and equitable distribution of the benefits of energy efficiency.

For the 2025-2027 term, we aim to accelerate program access for vulnerable and underserved customers through seven key strategies:

1. Increase electrification and continue to expand access to weatherization for low-income customers

As the Commonwealth transitions towards high-efficiency electric heating, it is critical that low-income customers—especially those that heat with delivered fuels—have an opportunity to electrify. In partnership with the network of Community Action Program (CAP) agencies, we will continue to deliver programs at no cost to low-income customers. We will also ensure that electrification is the default heating solution for low-income customers that heat with electric resistance and delivered fuels because these are the situations where electrification will not lead to increased energy burdens. Additionally, we will work with the Executive Office of Housing and Livable Communities (EOHLC) to support gas-to-electric conversions for low-income customers living in subsidized housing where utility allowances are being adjusted to address the differential costs between gas and electric heating and eliminate energy burden concerns for these customers. Over the 2025-2027 Plan, the PAs and their partner CAP agencies aim to weatherize over 42,000 low-

¹⁰ Low-income customers are defined as those earning up to 60 percent of state median income and living in 1-4 family homes and those earning up to 60 percent of area median income and living in 5+ unit multifamily buildings. Low-income customers are also often referred to in Mass Save program documents as “income-eligible customers,” because they qualify for certain additional financial assistance. “Low-income” and “income-eligible” are used interchangeably through this document to refer to these customers.

income homes and install heat pumps at more than 16,000 low-income housing units. This target represents approximately 50 percent year-over-year growth in low-income heat pump installations during the term and will require significant additional investment in weatherization and barrier mitigation to make these homes electrification-ready. To improve the customer experience and reduce the time required to provide services to this customer demographic, we will continue to support Action for Boston Community Development's (ABCD's) operation of the LEAN Statewide Client Services Center and make available year-round income qualification that is independent of the fuel assistance application process. Additionally, we will work with EOHLC to expand automated data sharing on categorical eligibility, which will help to increase enrollment on the discount rate and expand the number of customers eligible for services under the low-income programs.

To ensure that there is sufficient workforce to drive these increases in service, ABCD and Action, Inc. will continue to leverage the capabilities and resources of contractors and vendors from the market rate program across Eversource and National Grid territories to provide service within the low-income programs. Local CAP agencies will also increase capacity through additional staffing. The PAs, ABCD, and Action, Inc. will also review and optimize workflow processes, including with these new vendors, to ensure that projects are managed as efficiently as possible while also ensuring quality installations for this vulnerable customer group.

2. Increase moderate-income customer participation

Starting at the end of last term, we expanded the definition of “moderate-income” to consider both state and area median income and made moderate-income offerings available to landlords whose tenants meet these income qualifications. These changes will increase the number of customers eligible for our moderate-income offerings and reduce barriers to program qualification by aligning with the criteria used for many federal and state programs, such as rental assistance.

To reduce out-of-pocket costs and remove barriers to participation, we will offer no-cost weatherization, barrier remediation, and electrification to moderate-income customers. These measures will be delivered via a turnkey solution, streamlining the customer experience, ensuring quality installations, and managing costs. To further reduce barriers to qualification, we also propose to continue allowing moderate-income customers to qualify for no-cost weatherization by self-attesting to their household income and household size.¹¹ Through these efforts, we aim to weatherize approximately 33,000 moderate-income housing units, and support electrification of almost 7,000 moderate-income housing units across the state. To protect against increasing moderate-income customer energy burdens, our electrification efforts will focus on customers who heat with electric resistance, oil, and propane.

3. Increase participation for residential renters and rental properties, with a particular focus on designated equity communities

To more comprehensively serve residential renters and rental properties, we will provide no-cost weatherization, barrier remediation, and electrification for rental properties in designated equity communities where electrification will not increase renters' energy burdens and automatically qualify all properties with more than 50% rental units within these communities for the offer. This will include coordination of (or “turnkey”) delivery of services to address time constraints, manage costs, and improve the customer experience, as well as outreach to landlords. To help protect against increased energy burdens, landlords will be required to sign a form—similar to what is currently required in the low-income program—committing not to raise rent or evict tenants for a period following the receipt of program incentives. We worked collaboratively with DOER and the EWG to establish the criteria and select designated equity

¹¹ Moderate income customers will still be required to income verify in order to access no-cost barrier mitigation and electrification.

communities for the 2025-2027 Plan. We selected communities in which: (1) more than 35 percent of the population are renters; (2) there were greater than 8,000 renters; and (3) more than 50 percent of the population are low- or moderate-income. The process resulted in selection of 21 communities, including: Boston, Brockton, Chelsea, Everett, Fall River, Framingham, Fitchburg, Lawrence, Lowell, Lynn, Malden, New Bedford, Oak Bluffs, Pittsfield, Quincy, Revere, Salem, Springfield, Tisbury, Woburn, and Worcester.¹²

Outside of these communities, we will continue to provide rental units with no-cost weatherization and enhanced incentives to mitigate pre-weatherization barriers. In total, the Plan includes a record investment of over \$615 million dedicated to serving renters.

4. Expand participation pathways for small business renters, leased properties and landlords

We are designing new pathways to make it easier for small business renters and landlords to work together on energy-saving projects. Since longer-term investments like heat pumps and weatherization involve commitments from both renters and landlords, we will create new incentives and simplified processes to benefit both parties. For landlords, we will launch a targeted engagement strategy to have more leased buildings participate in our program and streamline the participation process, including options for managing multiple accounts in one building. Renters will also have access to resources on a new Mass Save Renters webpage, helping them approach their landlords about energy-efficient upgrades and understand the available incentives. These efforts, which include a focus on LOTE customers, are designed to make energy efficiency benefits accessible and attractive to both building tenants and owners.

5. Support energy efficiency and electrification improvements in schools across the Commonwealth, with a particular focus on environmental justice communities

We will work with DOER and other stakeholders to support energy efficiency and decarbonization improvements at schools in environmental justice communities through two offerings. First, together with support from other state agencies, we will help fully decarbonize five schools in environmental justice communities that will serve as models for supporting a clean, equitable transition for our public schools. We will support DOER's lead in selection of the five schools and help communities pursue other funding, such as the Massachusetts School Building Authority's (MSBA) heat pump program and the Massachusetts Clean Energy Center Green School Works grant. Second, the PAs will launch an offer to assist all participating K-12 schools on their path to decarbonization. These efforts will include support for new municipal energy managers, grant-writing support and enhanced incentives and technical assistance. In addition, the PAs will provide staff and Mass Save K-12 teacher training, as well as student workshops to integrate clean energy into learning outcomes while engaging in building upgrades. The PA approach to school decarbonization acknowledges the sometimes overlapping array of funding available for schools from different state entities and sources. Alongside the leadership efforts of DOER, the PAs are collaborating with a cross-agency working group that includes the Climate Office, MSBA, and the Massachusetts Clean Energy Center, to align program priorities and offers, participation requirements, application processes and other logistics to ensure a streamlined experience for accessing this much-needed decarbonization support.

¹² Unitil, Berkshire Gas, and Liberty may further limit eligibility within these communities in their service territories by focusing on certain environmental justice census blocks.

6. Continue to partner and invest in communities as a foundational strategy for reaching underserved customers

The 2025-2027 Plan significantly strengthens our commitment to working with community partners by deepening our efforts to provide multilingual, culturally sensitive outreach and engagement. This approach is crucial in raising awareness and participation in energy efficiency programs, particularly in designated equity communities with substantial populations of low- and moderate-income customers, renters, and LOTE customers. In response to the recommendations from the EWG, we are increasing both the budget and flexibility for Community First Partners (CFPs). This will enable CFPs to tailor their outreach strategies more effectively, retain skilled staff, and design marketing initiatives that resonate deeply with their residents and small business owners. We will also provide support and training for the CFP lead vendor and energy advocates on small business incentives and opportunities to drive more small business assessments.

We recognize the unique knowledge that these community-based organizations and municipalities possess and are committed to empowering them further by enhancing data sharing between vendors and communities, supporting more targeted outreach, and driving a significant increase in participation among underserved groups. These initiatives bolster support for CFPs and are integral to our commitment to distributive justice, ensuring that all communities have the opportunity to participate fully in the energy efficient future that we are co-creating. This enhanced partnership model not only acknowledges the importance of local expertise but is critical to delivering on the broader principles of distributive justice by ensuring that the benefits of energy efficiency are more equitably distributed, particularly among those who have historically been underserved. Additionally, through our Mass Save Community Education Grant, we will continue to increase our community engagement, with a focus on environmental justice communities, through energy efficiency education and literacy programs paired with marketing and training support. The 2025-2027 Plan's equity initiatives, informed by the EWG, represent a concerted effort to address both new challenges and ongoing needs.

7. Enhance support for LOTE customers

The Plan provides enhanced support for LOTE customers by improving language access throughout the customer journey, including material translations, interpreter services, and multilingual staff. We worked with vendors to develop language access strategies for residential and small business programs, starting with the five most commonly spoken languages in Massachusetts other than English, including Spanish, Portuguese, Mandarin, Cantonese, and Haitian Creole. These languages were identified based on the results of the study as the area of greatest and most immediate need for enhancing language access support. The study and recommendations were released in draft in June. We have committed to implementing the recommendations and are working to operationalize them within the programs. CFPs will also provide additional language support in communities where other languages are spoken. As part of these efforts, the LEAN Statewide Client Services Center and the Mass Save Statewide Contact Center will be positioned to comprehensively serve LOTE customers.



Deliver an improved customer experience



Currently, customers face challenges in accessing appropriate customer support resources to help them understand the various options for decarbonizing their homes or small businesses, the steps required to pursue them effectively, and how to efficiently access program supports and financial incentives. These challenges can pose barriers to participation, ultimately limiting customer adoption of the building decarbonization solutions critical to meeting the Commonwealth's climate and clean energy goals.

To drive the ambitious levels of customer adoption needed to meet the Commonwealth's decarbonization goals, we plan to implement new enhancements to streamline the customer experience and lead to increased program participation. Our objective is to deliver an improved customer experience through five key strategies:

1. Provide holistic, multilingual support for all customers via creation of a statewide contact center

To complement ABCD's LEAN Statewide Client Services Center for low-income customers described above, we will launch a new statewide contact center to provide comprehensive, multilingual support to residential and small business customers statewide regarding all energy efficiency and electrification offerings.¹³ This support will include guidance for customers at the beginning of their decarbonization journey who want information on where and how to start and the range of potential solutions available for their home or small business. Our statewide contact center will also support those customers who already have a specific objective in mind, such as electrification of their home, and want to know how they can access the Mass Save programs to support their plans.

Our statewide contact center will be staffed by program specialists who are knowledgeable on all Mass Save offerings and who can assist with topics including program guidance, Home Energy Assessments, HEAT Loans, the Massachusetts Climate Bank's Energy Saver Loan, decarbonization consultations, relevant tax credits or federal incentives, and the status of a rebate. Center staff will also be trained and equipped to help customers access incentives outside of the Mass Save programs, such as incentives for electric vehicles and distributed solar installations. Customers will be able to access these comprehensive resources via phone, chat, and email.

¹³ The Compact's existing customer service call center will offer these efforts and will coordinate with the Statewide Contact Center to ensure a seamless customer journey.

2. Ensure timely rebate processing and continuous improvement in the rebate processing experience

We process approximately 300,000 rebates annually. To support this demand and create a faster rebate process, we engaged a new rebate processing vendor as of July 1, 2023, and have worked very closely with them to improve the process for customers. We understand the significant challenges posed to customers by rebate processing delays last term and have actively worked to eliminate these issues and improve the customer experience. Going forward, we will continue to improve the rebate processing experience. This effort will include increasing the quality and completeness of submitted applications by creating an optional pre-approval step for customers pursuing electrification to help ensure customers understand and comply with each of the required components for successfully securing a rebate prior to submission of an application form.

Additionally, we will continue to work with our rebate processing vendor to further reduce the number of applications with missing information via enhancements to the online submission process and proactive outreach to affected customers. This outreach is in addition to the automated notifications customers already receive. We are also working to optimize and reduce the time required for inspections, while ensuring appropriate levels of post-installation review. Finally, we are also working with our rebate processing vendor to support digital payments, such as ACH payment and “digital checks.” Together, we expect these efforts to continue improving the rebate experience while ensuring that installed heat pumps achieve the expected energy savings and GHG reductions, and that customer dollars are prudently deployed.

3. Improve the customer experience for electrification, starting with low- and moderate-income customers and renters in designated equity communities

As already noted, we propose to improve the customer experience and eliminate out-of-pocket costs by offering moderate-income customers and renters in designated equity communities with no-cost weatherization, barrier remediation, and electrification, delivered via a turnkey approach. This approach will be modeled on our existing approach to weatherization, and our comprehensive delivery model to low-income customers, enabling the programs to provide a facilitated project management experience to customers for a broader range of offerings within decarbonization. By expanding the range of turnkey offerings, 2-to-4-unit homes containing a mix of market-rate and low- and moderate-income customers will be able to participate more effectively.

Based on our initial experience implementing a turnkey approach for moderate-income customers and renters in designated equity communities, we will expand the turnkey electrification offering to market-rate customers prior to the end of the 2025-2027 term. Through our partnership with the network of CAP agencies and implementation partners, we will also continue to reduce the time to serve low-income customers by deploying qualified vendors to areas where the local CAP agency’s time to serve exceeds six-to-eight weeks.



To drive the ambitious levels of customer adoption needed to meet the Commonwealth’s decarbonization goals, we plan to implement new enhancements to streamline the customer experience and increase program participation.

4. Standardize the C&I custom project pathway tools and requirements to create a consistent customer experience

We will offer several enhancements to improve the experience of C&I customers and vendors participating in the custom pathway. This includes standardizing savings calculation tools, engineering requirements, project documentation, and both pre- and post-installation inspections and savings validation processes across PAs. These resources will be made available on a shared website available to all PA engineers and technical service vendors. A central working group will oversee this alignment effort, to create a consistent experience for C&I customers developing custom-designed projects, on an ongoing basis. A 2024 statewide solicitation for technical service vendors will also help ensure we take a consistent approach to overseeing technical vendors and further enable shared practices. New initiatives for comprehensive energy assessments, existing building commissioning, and schools in equity communities will offer additional customer support in developing more comprehensive projects. Finally, the PAs are exploring ways to make project information more readily available to C&I customers.

5. Invest in digital enhancements and improved reporting

We will continue to enhance MassSave.com to expand electrification-related content, improve language access, and foster an optimal user experience. This will include personalization enhancements to nurture residential and C&I customers along their decarbonization journeys by providing the most relevant and helpful content and information. The net effect of the above-referenced strategies will lead to higher customer satisfaction, increased speed and accuracy of rebate processing, improved customer support, and ultimately, increased program participation.

The PAs are working in collaboration with DOER to provide the Council, the public, and interested stakeholders with valuable and easy-to-understand information on the programs that help measure progress toward our Plan goals. This information will include details on key measures such as weatherization jobs and heat pumps installed across different customer types and communities; investments in low- and moderate-income customers and in designated equity communities; and information on commercial projects such as custom electrification and existing building commissioning projects. Further details are included in Section 5.4: Operational Metrics and Key Performance Indicators.



Strengthen and diversify the workforce



The success of the 2025-2027 Plan and ultimately the Commonwealth's ability to meet its net zero commitments are dependent on having a workforce capable of providing energy efficiency, decarbonization, and demand response services. Over the last decade, the energy efficiency workforce in Massachusetts has grown over 86 percent and now directly supports approximately 76,000 good paying green collar jobs. Despite this rapid growth, we acknowledge the gaps in supporting and cultivating a diverse and equitable workforce. To this end we recognize that a stable, trained, diverse, and adaptable labor pool is essential to the continued growth and success of our programs.

To meet this need, we are pursuing several strategies to expand and diversify a robust workforce. These efforts are designed to help us meet ambitious building efficiency, energy savings, and decarbonization goals with a workforce that reflects the diversity of the communities and customers we serve. Our four key strategies to strengthen and diversify the workforce are described below:

1. Collaborate with the Massachusetts Clean Energy Center to increase workforce diversity, doubling annual funding to \$24 million per year

We will work collaboratively with the Massachusetts Clean Energy Center over the 2025-2027 term to increase workforce diversity, doubling annual funding to \$24 million per year. Areas of focus will include training for contractors and job seekers who prefer to be served in a language other than English and creation of a “contractor development pathway” to provide Minority and Women-owned Business Enterprises (MWBES) with business development and other essential support. The PAs and the Massachusetts Clean Energy Center hope that this “contractor development pathway” will enable MWBES to participate more successfully in the supplier ecosystem for energy efficiency and electrification. The Massachusetts Clean Energy Center will also provide regular reporting to the EEAC and the Department on their efforts, including through key performance indicators. This will help ensure that the \$72 million in customer funds transferred from the Mass Save programs to the Massachusetts Clean Energy Center are designed to support the equity-related workforce needs of the programs, that diverse trainees and businesses are given opportunities, as available, within the network of Mass Save contractors and vendors upon completion of their training, and that we ultimately succeed in creating a more diverse workforce that better represents the communities in which they serve.

In addition to collaborating with the Massachusetts Clean Energy Center, we will also continue to support several complementary efforts. These include: (1) offering the Mass Save Workforce Training Grant, which seeks to increase the sustainability of the energy efficiency workforce by upskilling and transitioning new workers into the workforce through partnership development and grant funding; and (2) for Eversource and National Grid specifically, training new and diverse candidates from equity communities through the Clean Energy Pathways program.

2. Increase supplier diversity, including through adoption of an aspirational benchmark to spend 15% of dollar volume of direct Mass Save contracts with diverse suppliers

We will also work to increase supplier diversity within the Mass Save programs. As a new effort and informed by the Council's recommendations, the PAs will set an aspirational benchmark¹⁴ to spend 15% of dollar volume of direct Mass Save contracts with diverse suppliers for the 2025-2027 Term. To achieve enhanced supplier diversity, we will work diligently to build the pipeline of diverse suppliers, support them in responding to requests for proposals (RFPs), and establish new metrics, to be reported annually, so that we can measure progress towards this benchmark. Separately, the PAs will invite our contractor community to indicate their diverse business status through regular surveys and make relevant data available to communities and interested customers, including on MassSave.com.

Additionally, we are committing to increase diverse supplier participation by: (1) publicly posting notice of opportunities and reaching out proactively to directly invite diverse suppliers to respond to specific RFPs; (2) communicating diverse suppliers on opportunities to work with the PAs through annual Supplier Diversity Summits; (3) facilitating quarterly and RFP-specific matchmaking opportunities to connect diverse suppliers with lead vendors; (4) In some cases, individual PAs are asking vendors to voluntarily provide a percent that they can commit to spend on diverse subcontractors. Where those vendors are selected, those voluntary commitments will become part of the terms and conditions on the contract with that vendor that the PA is able to track against; and (5) creating and funding a diverse vendor network to help coordinate upcoming RFP opportunities and share best practices among diverse suppliers.

3. Expand and strengthen a robust heat pump installation workforce via the Heat Pump Installer Network and ensure delivery of high-quality installations in both homes and businesses via contractor management and training

We will continue to develop an extensive network of heat pump installers who go through a qualification process in order to participate in the Mass Save programs. Training requirements for heat pump installers ensure that customers receive a quality heat pump installation. Over the 2025-2027 term, we will continue to expand our Heat Pump Installer Network and strengthen training requirements. Our Heat Pump Installer Network will provide the foundation for the development of a turnkey electrification pathway for moderate-income and market-rate customers. It will also be leveraged to expand electrification in our small commercial buildings. As small businesses across the Commonwealth seek resources to support their decarbonization goals, the PAs will continue to expand commercial installer participation in the Heat Pump Installer Network.

Finally, we are constantly evaluating the contractors who participate in the Mass Save programs and contractors who do not satisfy program requirements can be excluded from participating. To ensure excellence in program delivery and to help contractors succeed, we will provide training opportunities, including no-cost virtual trainings that are available 24/7 through our Mass Save Heating & Cooling Learning Center. These trainings have been created to address the design and installation of heat pump systems in both residential and commercial buildings.

¹⁴ The PAs will not use the benchmark as a means to preference or disadvantage certain suppliers based on race, gender, or sexuality in our individual procurement decisions. The benchmark is aspirational and expressly does not require a certain percentage of spending or quota be spent on diverse suppliers.

4. Expand C&I training opportunities, with a focus on integrating building controls and electrification

We will expand the quantity and range of training courses available, with dedicated staff to support these efforts. Our focus areas for additional C&I trainings will include electrification, weatherization, heat recovery, building controls, energy auditing, and building commissioning. While the majority of these trainings will target system designers and installers, many will also benefit facility managers and staff. We will also collaborate with DOER to update and expand energy code trainings for architects, engineers, and builders in response to recent changes to Massachusetts building and stretch codes, as well as cutting-edge design practices. We will design these training opportunities, focused on integrating building controls and electrification, to help equip our local workforce with the skill sets needed to serve C&I customers and meet their decarbonization goals.

Finally, we have established relationships with local institutions and industry organizations to foster workforce development in the C&I sector. These relationships will result in training that is structured to introduce the latest technologies and arm training participants with an understanding of how to identify opportunities to implement the technologies, enumerate their benefits, and leverage relevant PA funding and resources. We also partner with the Northwest Energy Efficiency Council to offer Building Operator Certification, which elevates building operators' capabilities through training in energy efficiency and smart building technologies, continued education, and certification.

A photograph of two construction workers, a man and a woman, wearing orange safety jackets and blue hard hats. They are standing on a construction site, looking at a tablet held by the woman. The background shows industrial equipment and a blue sky. The image is overlaid with a semi-transparent green filter.

To ensure excellence in program delivery and to help contractors succeed, we will provide training opportunities, including no-cost virtual trainings that are available 24/7 through our Mass Save Heating & Cooling Learning Center.

Table of Contents

EXECUTIVE SUMMARY	2
TABLE OF CONTENTS	21
TABLE OF FIGURES	25
SECTION 1: EQUITY	27
SECTION 2: STATUTORY AND REGULATORY REQUIREMENTS	38
2.1 STATUTORY AND REGULATORY PROCESS	38
2.1.1 <i>Regulatory Background</i>	38
2.1.2 <i>Roles and Responsibilities</i>	39
2.1.3 <i>Three-Year Plan Process</i>	42
2.2 STATUTORY AND REGULATORY REQUIREMENTS	46
2.2.1 <i>Summary of Budgets, Lifetime Savings, and Benefits</i>	46
2.2.2 <i>Common Assumptions and the Technical Reference Manual</i>	50
2.2.3 <i>Development of Goals</i>	51
2.2.4 <i>Cost Effectiveness and Benefits</i>	62
2.2.5 <i>Cost Categorization and Budget Requirements</i>	67
2.2.6 <i>Performance Incentives</i>	71
2.2.7 <i>Cost Recovery, Funding Sources, and Bill Impacts</i>	76
SECTION 3: STATEWIDE PROGRAMS	88
3.1 RESIDENTIAL SECTOR	88
3.1.1 <i>Residential New Homes & Renovations</i>	95
3.1.2 <i>Residential Turnkey Solutions</i>	105
3.1.3 <i>Residential Rebates</i>	125
3.1.4 <i>Residential ConnectedSolutions</i>	138
3.1.5 <i>Residential Education</i>	145
3.2 LOW-INCOME SECTOR	150
3.2.1 <i>Low-Income Eligibility Requirements</i>	151
3.2.2 <i>Statutory Budget Requirements</i>	154
3.2.3 <i>Low-Income Program Design</i>	154
3.3 COMMERCIAL & INDUSTRIAL SECTOR	163
3.3.1 <i>New Buildings & Major Renovations</i>	172
3.3.2 <i>Existing Buildings</i>	187

3.3.3	<i>Equipment Rebates & Instant Incentives</i>	208
3.3.4	<i>Small Business Turnkey Retrofit</i>	221
3.3.5	<i>C&I ConnectedSolutions</i>	231
3.4	HARD-TO-MEASURE INITIATIVES	239
3.4.1	<i>Statewide Contact Center</i>	242
3.4.2	<i>Community Outreach</i>	243
3.4.3	<i>Language Access</i>	246
3.4.4	<i>Workforce Development</i>	254
3.4.5	<i>HEAT Loan</i>	260
SECTION 4: EVALUATION, MEASUREMENT, AND VERIFICATION		264
4.1	EM&V FRAMEWORK	264
4.2	EVALUATION MANAGEMENT COMMITTEE	266
4.3	DESCRIPTIONS OF RESEARCH AREAS	266
4.4	TYPES OF EVALUATION FUNCTIONS	267
4.5	EVALUATION PLANNING AND THE STRATEGIC EVALUATION PLAN	268
4.5.1	<i>Evaluation Budgets</i>	268
4.5.2	<i>Evaluation and Implementation Feedback Loop</i>	269
4.5.3	<i>Evaluation Studies</i>	270
4.5.4	<i>Strategic Evaluation Plan</i>	270
SECTION 5: STATEWIDE DATA AND DATA TRANSPARENCY		272
5.1	OVERVIEW	272
5.2	REPORT TYPES	273
5.3	DATA SOURCES AND DASHBOARDS AVAILABLE	275
5.3.1	<i>Data Framework</i>	275
5.3.2	<i>Current Data Sources and Future Plans for Enhancements</i>	278
5.4	OPERATIONAL METRICS AND KEY PERFORMANCE INDICATORS	286
5.5	COUNCIL DATA REQUEST PROCESS	288
5.6	BUDGET SPENDING	289
5.7	DATA AGGREGATION STANDARDS	290
5.7.1	<i>Data Aggregation Standards: Proposed Changes</i>	290
5.7.2	<i>Proposed Data Aggregation Standards</i>	294
5.7.3	<i>Key Differences from Current State to Proposed Data Aggregation Standards</i>	296
SECTION 6: MARKETING		298
6.1	OVERVIEW	298
6.2	SECTORS	300

6.3 MARKETING CAMPAIGNS	301
6.4 DATA-DRIVEN RESEARCH	303
6.5 MASSSAVE.COM	303
SECTION 7: RESEARCH, DEVELOPMENT, AND DEMONSTRATION	305
SECTION 8: EFFORTS TO REDUCE COSTS.....	306
8.1 INTRODUCTION	306
8.2 MINIMIZING ADMINISTRATIVE COSTS	306
8.3 COMPETITIVE PROCUREMENT	309
8.4 ADDITIONAL STRATEGIES TO REDUCE OR MINIMIZE COSTS FOR THE 2025-2027 TERM.....	310
SECTION 9: OVERSIGHT SUPPORT	316
9.1 DOER ASSESSMENT.....	316
9.2 COUNCIL CONSULTANTS.....	316
APPENDICES.....	317
APPENDIX A: GLOSSARY	317
APPENDIX B: MAPS OF SERVICE AREAS	317
APPENDIX C: STATEWIDE ENERGY EFFICIENCY DATA TABLES	317
APPENDIX D: COUNCIL’S RESOLUTION OF DECEMBER 20, 2023.....	317
APPENDIX E: COUNCIL’S RESOLUTION OF JUNE 26, 2024	317
APPENDIX F: PROGRAM ADMINISTRATORS’ AUGUST 15, 2024 RESPONSE AND MATRIX.....	318
APPENDIX G: C&I TECHNICAL ASSISTANCE STUDY.....	318
APPENDIX H: AVOIDED ENERGY SUPPLY COMPONENTS IN NEW ENGLAND: 2024 REPORT	318
APPENDIX I: KEY PERFORMANCE INDICATORS.....	318
APPENDIX J: SPONSORSHIPS & SUBSCRIPTIONS POLICY	318
APPENDIX K: PA-SPECIFIC PROGRAMMING.....	319
<i>K.1 Residential and School Education (Eversource)</i>	<i>319</i>
<i>K.2 Residential Behavioral Energy Efficiency (National Grid and Unitil electric)</i>	<i>321</i>
<i>K.3 Residential Behavioral Energy Efficiency (Eversource)</i>	<i>323</i>
<i>K.4 Steam Electrification (Eversource).....</i>	<i>323</i>
<i>K.5 Localized Decarbonization Approaches (Eversource)</i>	<i>323</i>
<i>K.6 Cape and Vineyard Electrification Offering (Cape Light Compact).....</i>	<i>324</i>
APPENDIX L: TECHNICAL REFERENCE MANUAL	325
APPENDIX M: MASSCEC EQUITY WORKFORCE FUNDING LEVELS (FY25-FY27)	325
APPENDIX N: POTENTIAL STUDIES.....	325
APPENDIX O: VENDOR COST CATEGORIES	325

APPENDIX P: RESOLUTION OF THE EEAC REGARDING THE 2025-2027 THREE-YEAR PLAN EM&V PRINCIPLES AND POLICY, ADOPTED JULY 17, 2024	325
APPENDIX Q: PROGRAMS AND MARKETING	325
APPENDIX R: PERFORMANCE INCENTIVE MODEL.....	326
APPENDIX S: STRATEGIC EVALUATION PLAN.....	326
APPENDIX T: EVALUATION STUDY SUMMARIES.....	326
APPENDIX U: EVALUATION STUDIES	326
APPENDIX V: EEA SECRETARY’S GREENHOUSE GAS GOAL LETTER, MARCH 1, 2024	326
APPENDIX W: COUNCIL’S RESOLUTION OF OCTOBER 23, 2024.....	326
APPENDIX X: MARKET TRANSFORMATION PROGRAM THEORIES AND LOGIC MODELS	327
APPENDIX Y: ALTERNATIVE SCENARIO FROM EEA SECRETARY’S GHG GOALS LETTER.....	327

Table of Figures

Figure 1: A Bottom-up Approach to Decarbonization Through an Equity Lens	36
Figure 2: Our Equity Investment for the 2025-2027 Term	37
Figure 3: Management Structure for Program Delivery	44
Figure 4: Committees and Working Groups	45
Figure 5: Statewide Net Lifetime Savings, All Fuels (MMBtu), excluding ConnectedSolutions.....	47
Figure 6: Statewide Benefits (\$)	47
Figure 7: Statewide Budgets (\$)	47
Figure 8: Statewide Adjusted Gross Lifetime GHG Emissions Reductions (CO ₂ e)	47
Figure 9: Electric PA Net Lifetime Savings All Fuels (MMBtu), excluding active demand response (“ADR”) programs.....	48
Figure 10: Electric PA Net Lifetime Electric Energy Savings (MWh), excluding electrification and ConnectedSolutions	48
Figure 11: Electric PA Net Summer Peak Demand Reductions (kW), including ConnectedSolutions	48
Figure 12: Electric PA Budgets (\$)	49
Figure 13: Electric PA Adjusted Gross Lifetime GHG Emissions Reductions (CO ₂ e)	49
Figure 14: Gas PA Net Lifetime Savings (MMBtu), All Fuels	49
Figure 15: Gas PA Net Lifetime Gas Savings (Therms).....	50
Figure 16: Gas PA Budgets (\$)	50
Figure 17: Gas PA Adjusted Gross Lifetime GHG Emissions Reductions (CO ₂ e).....	50
Figure 18: Key Cost and Savings Drivers.....	60
Figure 19: Summary of the Performance Incentive Approach for the 2025-2027 Plan	75
Figure 20: Proposed Budgets	86
Figure 21: Turnkey Solutions Delivery Model	91
Figure 22: Residential Customer-guided Journey	93
Figure 23: Residential Sector Overview	95
Figure 24: Residential New Homes & Renovations Program Incentive Levels.....	102
Figure 25: 2025-2027 Designated Equity Communities	122

Figure 26: Residential Turnkey Solutions Program Incentive Levels	123
Figure 27: Residential Rebates Program - Common Characteristic Subcomponents	125
Figure 28: Residential Rebates Program Incentive Levels.....	136
Figure 29: Residential ConnectedSolutions Program Incentive Levels	145
Figure 30: Low-Income Program Incentive Levels.....	163
Figure 31: 2025-2027 C&I Core Programs	171
Figure 32: New Buildings & Major Renovations Program Incentive Levels	184
Figure 33: Decarbonization Studies	198
Figure 34: Existing Buildings Program Incentive Levels.....	207
Figure 35: IECC Code (from Technical Reference Manual).....	210
Figure 36: Equipment Rebates & Instant Incentive Levels (Downstream).....	218
Figure 37: Equipment Rebates & Instant Incentive Levels (Midstream).....	219
Figure 38: Small Business Turnkey Retrofit Program Incentive Levels.....	230
Figure 39: C&I ConnectedSolutions Incentive Program Incentive Levels.....	239
Figure 40: Phases of Developing Language Access	247
Figure 41: Data on the Most Commonly Spoken Languages in Massachusetts.....	248
Figure 42: Language Access Focus Group Findings and Recommendations	252
Figure 43: What the PAs Track, Data Type	276
Figure 44: Data Framework.....	276
Figure 45: Data Sources Framework	277
Figure 46: Data Availability by Geography Type	278
Figure 47: Mass Save Data	280
Figure 48: Municipal Mapping Tool.....	281
Figure 49: Customer Profile Dashboard	284
Figure 50: Dynamic Layout, Improved Navigation	285
Figure 51: Improved Filtering	286
Figure 52: Illustrative Example of Proposed Data Privacy Standards.....	295
Figure 53: Eversource Residential and School Education Programs	319

Section 1: Equity

Equity remains a foundational principle of our decarbonization efforts during the 2025-2027 term. In the Plan, we expand on our commitment to equity and incorporate distributive justice as a key element of program design and implementation. Recognizing that there can be multiple definitions and uses of these terms, in the context of the decarbonization and energy efficiency services provided through the Mass Save programs, we define ‘distributive justice’ as a commitment to promoting fair and equitable distribution of benefits and burdens across all customers, upholding and prioritizing the needs of historically underserved customers burdened with economic challenges, racial inequality, negative environmental impacts, and justice disparities. We are cognizant of our responsibility to enable a just energy transition for all and will continue to engage with our stakeholders, including the EWG, in this ongoing process of adopting distributive justice in the implementation of Mass Save programs.

We are deeply grateful to all stakeholders for their time, efforts, and engagement during the Plan development process. We recognize that distributive justice is a work in progress and that stakeholders and the EWG have high expectations for achievement. While they do not fully meet all recommendations, the activities and offerings proposed within this Plan represent a strong and meaningful commitment to equity and to continuous improvement. Throughout the 2025-2027 term, we will remain engaged with stakeholders to meet the goals that we have laid out and to identify additional improvements in promoting the fair and equitable distribution of the benefits of energy efficiency.

We are working to achieve more equitable participation for historically underserved customer groups, including renters, moderate-income households, LOTE customers, and small businesses.¹ Additionally, serving low-income customers remains a core focus of our programs, and the PAs and our partner Community Action Agencies (“CAP agencies”) remain focused on increasing service to this vulnerable customer group. The EWG continues to provide invaluable feedback on how to prioritize delivery to these groups and makes recommendations for achieving

¹ See *Residential Nonparticipant Customer Profile Study* (MA19X06-B-RESNONPART), produced for the Massachusetts PAs by DNV GL, Feb. 6, 2020. *Residential Nonparticipant Market Characterization and Barriers Study* (MA19X06-B-RESNONPART), produced for the Massachusetts PAs by Navigant, Illume, and Cadeo, Feb. 27, 2020. *Commercial and Industrial Small Business Nonparticipant Customer Profile Study* (MA18X11-B-SBNONPART), produced for the Massachusetts PAs by DNV GL, Apr. 15, 2020. *Massachusetts Limited English Proficient and English-isolated Customer Journey Mapping and Barriers Study* (MA21R37-B-LEPJM), produced for the PAs by Guidehouse, Illume, and Cadeo, Oct. 25, 2023.

more equitable delivery of Mass Save programs. We thank them for their support and look forward to continued collaboration during the 2025-2027 term.

In this 2025-2027 Plan, we have outlined a community-based approach to implementing equitable strategies targeted toward historically underserved groups and low-income customers to increase access to Mass Save programs. We detail our planned equitable strategies for the 2025-2027 term below.

Significantly increased investment in underserved customer groups and low-income customers.

We propose to invest \$1.9 billion in energy efficiency and electrification improvements for—and in efforts to reach and serve—low- and moderate-income customers, renters, LOTE customers, and small businesses. This marks, by a substantial margin, the largest investment in these customer groups made as part of a three-year plan in the Commonwealth. We anticipate that these investments will deliver over \$4.4 billion in equity-related benefits. For details on our equity investments, see Figure 2 below.

Increase electrification and continue to expand access to weatherization for low-income customers.

As the Commonwealth transitions toward high efficiency electric heating, it is critical that low-income customers—especially those who heat with delivered fuels—have an opportunity to electrify. In partnership with the network of CAP agencies, we will continue to deliver programs at no cost to low-income customers. We will also ensure that electrification is the default heating solution for low-income customers who heat with electric resistance and delivered fuels because these are the situations where electrification will not lead to increased energy burdens. Additionally, we will work with EOHLC to support gas-to-electric conversions for low-income customers living in subsidized housing where utility allowances are being adjusted. This will address the differential costs between gas and electric heating and eliminate energy burden concerns for these customers.

Over the 2025-2027 term, we and our partner CAP agencies aim to weatherize more than 42,000 low-income homes and install heat pumps at more than 16,000 low-income housing units. This target represents approximately 50 percent year-over-year growth in low-income heat pump installations during the term and will require significant additional investment in weatherization and barrier mitigation to make these homes electrification-ready. To improve the customer experience and reduce the time required to provide services to this customer demographic, we will continue to support ABCD's operation of the LEAN Statewide Client Services Center and make available year-round income qualification that is independent of the fuel assistance application process. Additionally, we will work with EOHLC to expand automated data sharing on categorical eligibility, which will help to increase enrollment on the discount rate and expand the number of customers eligible for services

under the Low-Income programs. We have recently executed a new data sharing agreement with Mass Health which will accomplish our goal of expanding automated data sharing.

To ensure that the workforce is sufficient to drive these increases in service, we, and our low-income lead vendors, ABCD and Action, will continue to leverage the capabilities and resources of contractors and vendors from the market-rate program across Eversource and National Grid territories to provide service within the Low-Income programs. Local CAP agencies will also increase capacity through additional staffing. We will also continue to review and optimize workflow processes with ABCD and Action, as well as with our new vendors, to ensure they manage projects efficiently as possible, and deliver quality installations to this vulnerable customer group.

100% incentives and enhanced accessibility for moderate-income customers.

The 2025-2027 Plan includes no-cost weatherization, barrier remediation, and electrification for all moderate-income customers. We included several program design enhancements to reduce financial and logistical barriers for these customers. These enhancements include: (a) expanded eligibility criteria through the adoption of area median income (“AMI”) as an alternative qualifier to state median income (“SMI”) and by extending moderate-income offerings to landlords whose tenants meet these income qualifications, (b) the ability to qualify for weatherization improvements by attesting to household income, (c) the creation of a facilitated (or “turnkey”) delivery model for improvements, and (d) the elimination of out-of-pocket costs for these customers.² We aim to weatherize approximately 33,000 and electrify almost 7,000 moderate-income households and provide significant additional investments in barrier mitigation necessary to meet these goals.

A record level of support for renters.

To more comprehensively serve residential renters and rental properties, we will provide no-cost weatherization, barrier remediation, and electrification for rental properties in designated equity communities, where electrification will not increase renters’ energy burdens, and automatically qualify all properties with more than 50 percent rental units within these communities for the offer.³ This will include turnkey delivery of services to

² The PAs note that enhancements (a) and (b) were rolled out at the end of the 2022-2024 term to improve uptake of moderate-income offerings and are already part of moderate-income qualification requirements.

³ The PAs worked collaboratively with DOER and the EWG to establish the criteria and select designated equity communities for the 2025-2027 Plan. Except for communities located in Cape Light Compact territory, which has a unique territory with distinctive characteristics, the PAs selected communities in which: (1) more than 35 percent of the population are renters; (2) there were greater than 8,000 renters; and (3) more than 50 percent of the population are low- or moderate-income. The process resulted in selection of 21 communities, including: Boston, Brockton, Chelsea, Everett, Fall River, Framingham, Fitchburg, Lawrence, Lowell, Lynn, Malden, New Bedford, Oak Bluffs, Pittsfield, Quincy, Revere, Salem, Springfield, Tisbury, Woburn, and Worcester. Unitil, Berkshire Gas, and Liberty may further limit eligibility within these communities in their service territories by focusing on certain environmental justice census blocks.

address time constraints, manage costs, and improve the customer experience, as well as outreach to landlords in collaboration with municipalities and community-based organizations. To help protect against increased energy burdens, we will require landlords to sign a form, like what we require for the Low-Income programs, committing them to not raising rent or evicting tenants for a period following the receipt of Mass Save program incentives. These efforts will support a record investment of more than \$615 million dedicated to serving renters.

Enhanced access for small businesses.

We are implementing several efforts to address equity considerations for our small business customers. For example, we are launching two new offers focused on (a) equitable participation of leased commercial space, which targets both renters and their landlords, and (b) small charitable nonprofit organizations. Both offers will include increased incentives, enhanced outreach and marketing, and individualized approaches for supporting participation. To improve access for small business customers, we will also provide concierge services through existing pathways via lead vendors and Quality Assurance and Quality Control (“QA/QC”) vendors. Our lead vendors will assist in scheduling small business assessments, explaining the measures and costs associated with them, assisting customers in obtaining financing when needed, and helping customers choose a contractor when the lead vendor is not able to implement recommended measures themselves. Our QA/QC vendors will ensure lead vendors thoroughly complete high quality work. We will also ensure that LOTE customers are able to participate in the programs by running marketing campaigns in multiple languages, providing program materials in multiple languages, and offering translation services when needed.

We have proposed additional funding for the Community First Partnership (see below), which will provide support and training for the lead vendor and Energy Advocates regarding small business incentives and opportunities. This additional support and training will hopefully drive more small business assessments from Community First Partnership efforts.

We also strive for equity with our vendors who deliver energy efficiency work and recognize that not all vendors and contractors offer comprehensive services or are large enough to win the small business services contract. Therefore, we are expanding our Customer Directed Option and will actively recruit smaller vendors and contractors to bring in more projects through that pathway. This expansion will have the impact of bringing in a wider and more diverse set of contractors who can deliver energy efficiency services to small business customers and grow their businesses by engaging with us.

Additional support for schools in underserved communities.

We will work with DOER and other stakeholders to support energy efficiency and decarbonization improvements at schools in underserved communities through two offers. First, we will implement an offer to fully decarbonize five schools in underserved communities selected by DOER. These decarbonization projects will serve as models for supporting a clean, equitable transition for our public schools.

For the decarbonization of these five schools, we propose providing approximately \$47 million across multiple terms, and will supplement funding from other state agencies. We will also direct additional funding toward supporting the creation of municipal energy manager roles in the communities where these five selected schools are located where such a role does not yet exist. If the role of a municipal energy manager does exist but has only been part-time, we will provide funding to support communities who make that role a full-time position, provided the community can show they need a full-time position. We will also provide support for: (a) technical assistance, such as building decarbonization assessments of these school buildings, to help them determine their path to decarbonization, (b) engineering design assistance, and (c) implementation of identified energy efficiency and electrification upgrades. Furthermore, we will support DOER's lead in the selection of the five schools, messaging to stakeholders, and recruiting other funding, such as the Massachusetts School Building Authority's ("MSBA") heat pump program and MassCEC's Green School Works grant—both scheduled to launch in January 2025.

Second, we will launch an offer to assist all participating K-12 schools on their path to decarbonization that includes:

- A competitive grant to create municipal energy manager roles in communities that want to pursue school decarbonization and where such a role does not yet exist in a full-time capacity. We will launch this grant application in September 2024, with funding to commence in 2025, in coordination with the Community First Partnership so communities can plan for both program applications simultaneously, when needed.
- Portfolio planning and project planning assistance in the form of portfolio prioritization plans, comprehensive building assessments, and decarbonization roadmaps designed to work together with MassCEC's Green School Works program and be part of the PAs' increased technical assistance for commercial customers.
- Implementation funding in the form of an enhanced incentive for energy efficiency and electrification of school buildings that considers the budget constraints faced by school districts and municipalities.
- Staff training and educator curriculum, including both targeted training for facilities staff on building codes and decarbonization technologies for their school buildings as well as the incorporation of the K-12

Education program’s professional development training and student workshops to maximize the opportunity for schools to integrate clean energy into learning outcomes and educational offerings while engaging in building upgrades.

Our approach to school decarbonization acknowledges the array of, sometimes overlapping, funding available for schools from different state entities and sources. Alongside the leadership efforts of DOER, we will collaborate with a cross-agency working group that includes the Climate Office, the MSBA, and MassCEC, to align the various program priorities and offers, participation requirements, logistical coordination, and application processes to provide municipalities and school districts with a clear and more streamlined experience for accessing this much-needed decarbonization support.

[Community First Partnership enhancements.](#)

This Plan significantly strengthens our commitment to working with Community First Partners by deepening our efforts to provide multilingual, culturally sensitive outreach and engagement. This approach is crucial in raising awareness and participation in our programs, particularly in designated equity communities with substantial populations of low- and moderate-income customers, renters, and LOTE customers.

In response to the EWG’s recommendations, we are increasing both the budget and flexibility for Community First Partners. This will enable Community First Partners to tailor their outreach strategies more effectively, retain skilled staff, and design marketing initiatives that resonate deeply with their communities. We recognize the unique knowledge that these community-based organizations and municipalities possess and are committed to empowering them further by enhancing data sharing between vendors and communities, supporting more targeted outreach, and driving a significant increase in participation among underserved groups.

These initiatives bolster support for Community First Partners and are integral to our commitment to distributive justice, ensuring that all communities can participate fully in the energy-efficient future that we are co-creating. Our enhanced partnership model not only acknowledges the importance of local expertise but is also critical to delivering on the broader principles of distributive justice by ensuring more equitable distribution of the benefits of efficiency, particularly among historically underserved communities. The 2025-2027 Plan’s equity initiatives, informed by the EWG, represent a concerted effort to address new challenges and ongoing needs.

[Identifying designated equity communities to better target underserved customers.](#)

We worked collaboratively with DOER and the EWG to establish criteria and select designated equity communities for targeted offers under the Plan. Except for communities located in Cape Light Compact’s territory, which has a

unique territory with distinctive characteristics, we selected communities in which: (1) more than 35 percent of the population are renters, (2) there were greater than 8,000 renters, and (3) more than 50 percent of the population are low or moderate income. The process resulted in the selection of 21 designated equity communities, including Boston, Brockton, Chelsea, Everett, Fall River, Framingham, Fitchburg, Lawrence, Lowell, Lynn, Malden, New Bedford, Oak Bluffs, Pittsfield, Quincy, Revere, Salem, Springfield, Tisbury, Woburn, and Worcester. Unitil, Berkshire Gas, and Liberty may further limit eligibility within these communities in their service territories by focusing on certain environmental justice census blocks. The Plan’s equity initiatives, informed by the EWG, represent our concerted effort to address both new challenges and ongoing needs. For a detailed discussion of our community engagement efforts and efforts in designated equity communities, please see section 3.4.2: Community Outreach and section 3.1.2: Residential Turnkey Solutions, respectively.

Equitable workforce development.

The Plan doubles annual funding to MassCEC from \$12 million to \$24 million to support workforce diversity, including training for contractors and job seekers who prefer to be served in a language other than English and the creation of a Contractor Development pathway to provide business development support for Minority- and Women-owned Business Enterprises (“M/WBEs”). Additionally, we are also committed to reviewing background check requirements and addressing opportunities for returning citizens to work in the Mass Save programs while appropriately protecting the safety and security of participants. To that end, we will:

- Meet with workforce advocates, including Browning the Green Space and Action for Equity, as well as the AGO and DOER, to solicit input, suggestions, and ideas.
- Develop a common set of principles for addressing opportunities for returning citizens on or before January 2026. We will develop these principles under the guidance of applicable legal requirements and jurisdictional authorities, as well as our own policies and procedures. We will publish these principles on or before January 2026.⁴

⁴ As a part of this effort, we will consider examples of common fact patterns provided in legal guidance and how they may address them. Each PA is responsible for making its own decisions regarding individual applicants—consistent with its corporate policies, the principles noted above and the law, and its own internal review and determination based upon the matter specific facts. Each PA’s decision will consider the context of the specific situation and business interest. For example, what was the nature of the conviction, what is the position the individual is applying for, and does it entail unsupervised customer contact, etc.?

Increasing supplier diversity.

We are strongly committed to increasing supplier diversity and have been working across our energy efficiency and global supplier diversity teams to identify all of the ways that we can achieve this mutual goal. As a new effort and informed by the Council's recommendations, we will set an aspirational benchmark to spend 15 percent of dollar volume of direct Mass Save contracts with diverse suppliers for the 2025-2027 term.⁵ To achieve enhanced supplier diversity, we will work diligently to build a pipeline of diverse suppliers, support them in responding to requests for proposals ("RFPs"), and enhance our tracking so we can measure progress toward this benchmark.

Our efforts will include establishment of the following set of key performance indicators ("KPIs") which we will report on annually, as part of our Q4 reports:

- The total amount of dollars spent on direct contracts with Mass Save and the subset of these dollars spent on diverse suppliers, with detailed breakouts by diverse supplier type (including MBEs, WBEs, Disadvantaged Business Enterprises, LGBTQ+ Business Enterprises, and Veteran-owned Business Enterprises). We will base diverse supplier spending on both prime and subcontractor spending. We will clearly note the 15 percent aspirational benchmark as part of the reporting.
- The total number and percent of diverse suppliers directly invited to participate in statewide RFPs, with detailed breakouts by the same diverse supplier types.
- The total number and percent of diverse suppliers who respond to these RFPs, with detailed breakouts by the same diverse supplier types.

Separately, we will also survey our contractor community on a regular basis to identify which of them are diverse and we will make this information publicly available on the Mass Save website for interested customers.

Additionally, we are committing to increasing diverse supplier participation through these initiatives:

- Providing greater advance notice of opportunities by posting them on the MA Goods and Services website, [MassSave.com](https://www.mass.gov/info-details/mass-save), and with diverse supplier organizations, such as the Black Economic Council of Massachusetts ("BECMA"), and reaching out proactively to directly invite diverse suppliers to respond to specific RFPs.

⁵ We will not use the benchmark as a means to preference or disadvantage certain suppliers based on race, gender, or sexuality in our individual procurement decisions. The benchmark is aspirational and expressly does not require a certain percentage of spending or quota the PAs must spend on diverse suppliers.

- Reaching out and educating diverse suppliers on opportunities to work with Mass Save through annual supplier diversity summits.
- Facilitating quarterly and RFP-specific matchmaking opportunities to connect diverse suppliers with lead vendors.
- Asking, in some individual PAs' cases, vendors to voluntarily provide a percent that they can commit to spending on diverse subcontractors. In cases where a PA selects those vendors, the PAs will make those voluntary commitments a part of the vendor's contracted terms and conditions and will track them.
- Working closely with MassCEC, with its expanded workforce diversity budget, to establish a Contractor Development pathway to provide a pipeline of skilled diverse workers.
- Providing support to diverse suppliers and creating and funding a diverse vendor network to help coordinate upcoming RFP opportunities and share best practices among diverse suppliers.

Operationalizing language access.

The Plan provides enhanced support for LOTE customers by improving language access throughout the customer journey, including material translations, interpreter services, and multilingual staff. We worked with our vendors to develop language access strategies for residential and small business programs in the five most spoken languages in Massachusetts other than English, including Spanish, Portuguese, Mandarin, Cantonese, and Haitian Creole. We released these draft materials in June and for certain documents (i.e., technical glossary), also included simplified English. We are committed to implementing the suggested language access strategies and are working to integrate them within our programs. We will work with Community First Partners who will provide additional language support in communities where customers prefer to be served in a language other than English. As part of these efforts, we will position the LEAN Statewide Client Services Center and Mass Save Statewide Contact Center to comprehensively serve LOTE customers.

Data-driven approaches.

For the Plan, we included improved data collection and reporting to better target investments and assessed the effectiveness of our programs in underserved communities and for underserved customer groups across different building types. Each of the equity-related targets in the Plan, such as the number of heat pumps targeted to low- and moderate-income customers and the aspirational benchmark to spend 15 percent of dollar volume of direct Mass Save contracts with diverse suppliers, we developed based on significant feedback from the EEAC, EWG, and stakeholders. We have fully funded these targets in the Plan and designed underlying implementation strategies to meet and hopefully exceed the established goals.

We also worked with DOER, the EWG, and stakeholders to develop metrics that we will use to report performance against those targets and at a high granular level across communities, customer groups, and building types. For these metrics, we also included indicators necessary to understand potential barriers to performance. For each of these metrics, we will support them through reporting pipelines, primarily through the benefit-cost models, which will ensure timely and accurate reporting on performance.

Enhanced customer experience.

The Plan includes the establishment of a new Mass Save Statewide Contact Center, in addition to the LEAN Statewide Client Services Center, to provide holistic, multilingual support for all customers, ensuring they receive the guidance and information needed to participate in efficiency and decarbonization programs.

Figure 1: A Bottom-up Approach to Decarbonization Through an Equity Lens

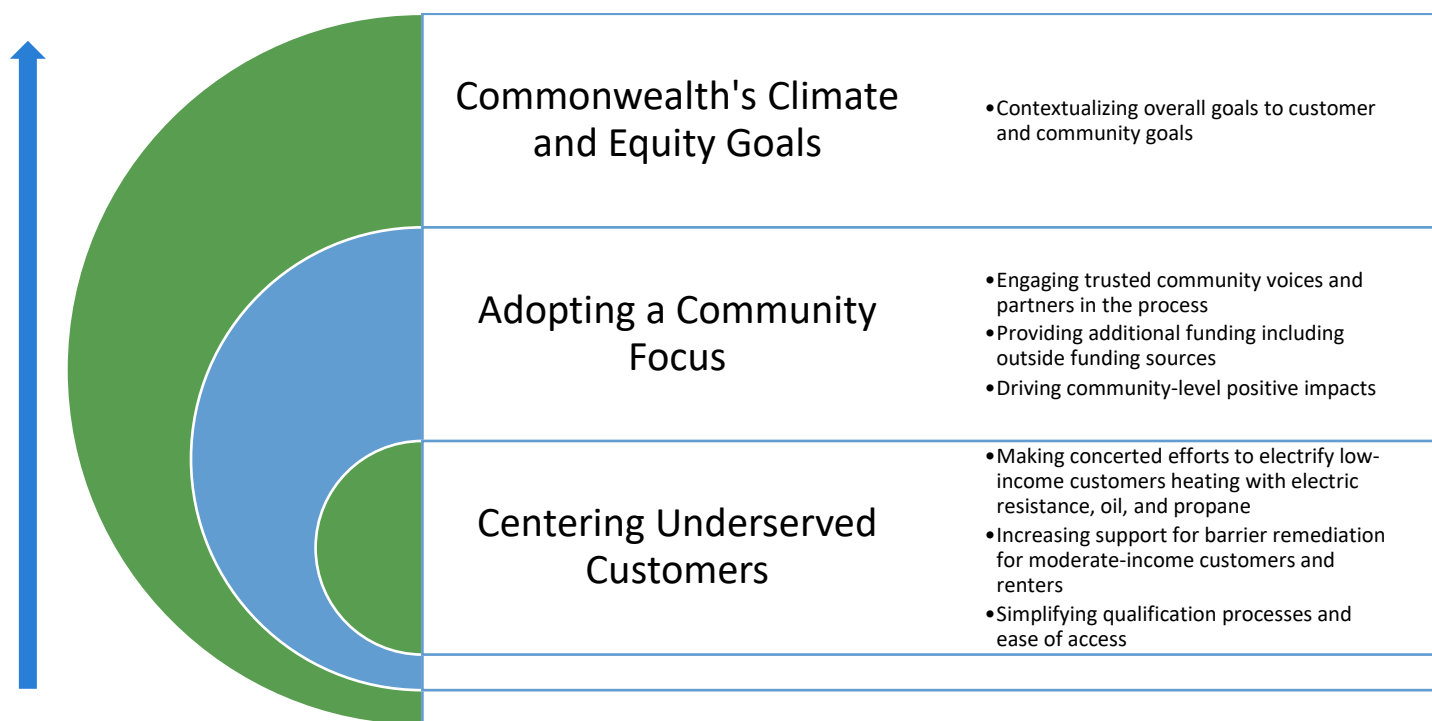


Figure 2: Our Equity Investment for the 2025-2027 Term

Equity Investment	Plan
Low- and moderate-income incentives	\$1.3 billion
Renter incentives*	\$616 million
Small business turnkey incentives	\$96 million
Community engagement	\$24 million
Language access	\$24 million
Workforce development	\$88 million
Program support, includes low-income and small business turnkey support	\$244 million
Total Equity Investment	\$1.9 billion

*Note: Renter incentives include incentives to low-, moderate- and non-income qualified renter households and therefore there is overlap between the low-and moderate-income incentives and the renter incentives noted above.

The equity investments in the 2025-2027 Plan reflect new approaches informed by the EWG, such as significant investments for renters in designated equity communities, as well as continued and increased support for existing programs, such as the Community First Partnership. They are also indicative of a broader and meaningful commitment to principles of distributive justice and equity.

Section 2: Statutory and Regulatory Requirements

2.1 Statutory and Regulatory Process

The PAs are responsible for administering efficiency programs within the Commonwealth.⁶ The Green Communities Act (“GCA”) requires the PAs to pursue all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply.⁷ Additionally, *An Act Creating a Next Generation Roadmap for Massachusetts Climate Policy* (“2021 Climate Act”) requires the PAs to construct their three-year plans to meet or exceed the GHG Goal set by the EEA Secretary.⁸ The GCA sets up a multi-level regulatory framework in which the PAs work with diverse stakeholders through the EEAC on program development and implementation and appear before the Department for three-year plan approval, reporting, and cost recovery.

2.1.1 Regulatory Background

The GCA is the founding legislation for the creation of the modern three-year energy efficiency and electrification plans administered by the Massachusetts PAs.⁹ Passed in 2008, the GCA mandates the development of comprehensive plans to capture all-available, cost-effective energy efficiency and demand resources using dedicated customer revenues. The Massachusetts Legislature charged the Department with the responsibility for reviewing and approving the plans.

The Massachusetts Legislature passed the *Global Warming Solutions Act* (“GWSA”) the same year, establishing GHG emissions limits for the Commonwealth.¹⁰ Passage of the 2021 Climate Act established a legal requirement to reduce GHG emissions by 50 percent below the 1990 baseline level by 2030 and to achieve net zero GHG emissions by 2050, as well as the adoption of sector-based sub-limits for residential and commercial heating and cooling.¹¹ Additionally, the 2021 Climate Act requires the EEA Secretary to establish a GHG reduction goal for

⁶ G.L. c. 25, §§ 19, 21.

⁷ G.L. c. 25, § 21(b)(1).

⁸ G.L. c. 25, § 21(d)(4).

⁹ See An Act Relative to Green Communities, Acts of 2008, c. 169.

¹⁰ See An Act Establishing the Global Warming Solutions Act, Acts of 2008, c. 298.

¹¹ G.L. c. 21N, §§ 3, 3A.

three-year plans (“GHG Goal”) that contributes to achievement of the statewide GHG emissions limits and sector-based sub-limits.¹² For the 2025-2027 Plan, the EEA Secretary set the GHG Goal in her letter dated March 1, 2024 (“GHG Goal Letter”). For the 2025-2027 term, the PAs intend to achieve the GHG Goal through both traditional energy efficiency measures and other measures that focus on reducing a building’s GHG emissions. While some of these GHG emission reducing measures may not explicitly save energy, they reduce a building’s GHG emissions and should contribute toward the 2025-2027 Plan’s achievement of the GHG Goal and the Massachusetts 2030 climate goals for the building sector.

In 2022, the Massachusetts Legislature’s passage of *An Act Driving Clean Energy and Offshore Wind*, Acts of 2022, c. 179 (“2022 Climate Act”) further prohibited spending on incentives or support for new fossil fuel equipment starting with the Plan, except in a few limited situations.¹³ The 2022 Climate Act requires that three-year plans consider program participation among low- and moderate-income households, and include strategies to address equitable access to the Mass Save programs.¹⁴ The 2022 Climate Act also authorized inclusion of programs that combine energy efficiency, electrification, renewable generation, and storage.¹⁵

2.1.2 Roles and Responsibilities

Department of Public Utilities

The Department is a quasi-judicial regulatory agency with extensive statutory authority over the PAs.¹⁶ The DPU is responsible for ensuring that the electric and gas utilities provide safe, reliable, and least-cost service to Massachusetts customers. In addition to prioritizing safety, security, reliability of service, and affordability, the Department must also prioritize equity as well as reductions in GHG emissions to meet statewide GHG emission limits and sub-limits.¹⁷ Having the resources, technical expertise, and the statutory obligation to regulate in the public interest, the Department is uniquely structured to ensure that energy efficiency funds are deployed cost effectively, that all customers are both eligible to access and able to receive energy efficiency services, and that

¹² G.L. c. 21N, § 3B.

¹³ The statute explicitly provides that there shall be “no spending on incentives, programs or support for systems, equipment, workforce development or training as they relate to new fossil fuel equipment unless such spending is for low-income households, emergency facilities, hospitals, a backup thermal energy source for a heat pump, or hard to electrify uses, such as industrial processes.” G.L. c. 25, § 21(b)(2) (*italics added*).

¹⁴ *Ibid.*

¹⁵ *Ibid.*

¹⁶ The Department’s authority extends beyond energy efficiency to all aspects of the operations of electric and gas distribution companies including, but not limited to, rate setting, service quality, customer care, and the operation of a safe and reliable utility. See G.L. c. 164, § 76. Since its establishment by the Massachusetts Legislature in 1919, the Department has comprehensively regulated the operations of electric and gas distribution companies in Massachusetts pursuant to G.L. c. 25 and 164 to ensure that electric and gas services are provided pursuant to just and reasonable rates.

¹⁷ See G.L. c. 25, § 1A.

energy savings are being achieved. The Department also evaluates three-year plans to ensure the PAs constructed them to achieve the GHG Goal.

Under the GCA, the Department has oversight authority over the PAs and the EEAC, and is responsible for final administrative review of energy efficiency determinations.¹⁸ The DPU has ultimate jurisdiction with respect to the final three-year plan approval, cost effectiveness, rates, and cost recovery.¹⁹ The Department established Guidelines that set forth the requirements for energy efficiency, including the elements, review process, and mid-term modifications related to three-year plans, the method for determining cost effectiveness, and the mechanisms for cost recovery.²⁰ The DPU conducts its review of three-year plans and PA performance through adjudicatory proceedings consistent with the *Massachusetts Administrative Procedure Act* (M.G.L. c. 30A), which requires the Department to maintain standards of fair procedure such as notice, an opportunity to be heard, and the ability to appeal decisions.²¹ Funding for the Mass Save programs is also approved by the Department and reconciled annually through separate proceedings.

The Department is responsible for determining the effectiveness of the three-year plans on an annual basis.²² The PAs submit detailed reports to the Department each year, documenting program participation, savings, benefits, and expenditures, summarizing and providing completed evaluation studies, and explaining any variances from expected performance levels. The Department does not adjudicate Plan-year reports filed following the initial two years of a term; however, if a PA has not reasonably complied with its three-year plan, the DPU may open an investigation into the PA's performance.²³ At the conclusion of the program term, each PA files a detailed term report showing compliance with the requirements of GCA and Department Guidelines and directives. The

¹⁸ G.L. c. 25, §§ 19, 21, 22.

¹⁹ The GCA states that, in authorizing energy efficiency programs, the Department “shall ensure that they are delivered in a cost-effective manner capturing all available efficiency opportunities, minimizing administrative costs to the fullest extent practicable and using competitive procurement processes to the fullest extent practicable, provided, however, that when determining cost-effectiveness, the calculation of program benefits shall include calculations of the social value of greenhouse gas emissions reductions except in the cases of conversions from fossil fuel heating and cooling to fossil fuel heating and cooling.” G.L. c. 25, § 19(a, b). To mitigate capacity and energy costs for all customers, the GCA also requires the Department to ensure that electric and natural gas resources are first met “through all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply, provided, however, that when determining cost effectiveness, the calculation of program benefits shall include calculations of the social value of greenhouse gas emissions reductions.” G.L. c. 25, § 21(a).

²⁰ D.P.U. 20-150-A.

²¹ G.L. c. 30A, §§ 5, 10-12, 14 (outlining adjudicatory proceedings and availability of judicial review). Additionally, to comply with G.L. c. 30A, the Department must maintain a record of its adjudicatory proceedings, afford parties the opportunity to present evidence and argument and issue decisions in writing or on the record with a statement of reasons. G.L. c. 30A, §§ 10-11. Finally, Department decisions are subject to appeal to the Supreme Judicial Court on the record formed during the G.L. c. 30A adjudicatory proceeding. G.L. c. 30A, § 5.

²² G.L. c. 25, § 21(d)(2).

²³ G.L. c. 25, § 21(e).

Department reviews the term report through an adjudicatory proceeding and provides final approval of costs and performance incentives.

At the conclusion of a three-year plan, the Department submits to the Massachusetts Legislature, a report “indicating the degree to which the activities undertaken pursuant to the performance of each Plan met the [GHG Goal].”²⁴ This report must use the most recent and complete data and measurements available.

Energy Efficiency Advisory Council

The EEAC consists of 15 voting members of diverse backgrounds and expertise, composed of governmental and non-governmental members, who are appointed by the Department.²⁵ The EEAC also includes one “non-voting, ex-officio member” from each of the PAs (composed of Massachusetts electric and natural gas distribution companies and municipal aggregators with certified energy plans).²⁶ There is also one non-voting member representing each of the following: the heating oil industry, energy efficiency businesses, and the Independent System Operator-New England (“ISO-NE”).²⁷

The statutorily defined composition of the EEAC ensures that the programs, development, and implementation of three-year plans can benefit from a broad range of perspectives, such as nonprofits, business, manufacturing and real estate associations, environmental advocates, municipalities, state agencies, and residential and low-income customers. The expertise of the EEAC’s diverse membership and consultants allows it to provide strategic, objective advice to the PAs. The EEAC also provides a forum for coordinating stakeholder feedback on a statewide basis. The EEAC coordinates with the PAs in developing a three-year plan, periodically reviewing program cost effectiveness, and providing a report to the Massachusetts Legislature about the implementation of the three-year plan.²⁸ The EEAC retains energy efficiency experts.²⁹ The EEAC holds monthly meetings to conduct its

²⁴ G.L. c. 25, §21(d)(5).

²⁵ G.L. c. 25, § 22(a). The 15 voting members include one person representing each of the following: (1) residential customers, (2) the low-income weatherization and fuel assistance program network, (3) the environmental community, (4) businesses, including large C&I end-users, (5) the manufacturing industry, (6) energy efficiency experts, (7) organized labor, (8) the Department of Environmental Protection, (9) the Attorney General’s Office, (10) the Executive Office of Economic Development, (11) the Massachusetts Nonprofit Network, (12) a city or town in the Commonwealth, (13) the Massachusetts Association of Realtors, (14) a business employing fewer than 10 persons located in the Commonwealth that performs energy efficiency services, and (15) the Massachusetts Department of Energy Resources. The Commissioner of DOER serves as chair of the Council. G.L. c. 25, § 22.

²⁶ G.L. c. 25, § 22(a).

²⁷ G.L. c. 25, § 22(a).

²⁸ G.L. c. 25, § 22(b), (c).

²⁹ G.L. c. 25, § 22(c).

business, in accordance with the Open Meeting Law. The EEAC may also create subcommittees to help with its business (e.g., the Executive Committee and the EWG).

2.1.3 Three-Year Plan Process

Development of the Plan

The process established by the GCA provides extensive and meaningful stakeholder input into the design and implementation of the three-year plans. The PAs engage with the EEAC on the development of each new three-year plan, including through regular meetings, topic specific EEAC workshops, and through regular communications with DOER, the AGO, and the EEAC’s consultants. In 2023, the PAs actively took part in six workshops convened by the EEAC in support of the development of the 2025-2027 Plan. Following the workshops in 2023, the EEAC issued a resolution on December 20, 2023, providing recommendations to the PAs based on the EEAC workshop discussions. The PAs also took part in two public listening sessions organized by the EEAC in 2023 and reviewed oral and written public comments at regular EEAC meetings. The PAs closely reviewed the Council’s recommendations and comments from the listening sessions and incorporated many of them into the program designs for the Plan.

The formal stakeholder process commences with the submission of the draft Plan to the EEAC every three years on or before March 31, which entails opportunities for public comment and formal review and recommendations from the EEAC.³⁰ Three months after submission of the plan to the EEAC (i.e., end of June), the EEAC offers its approval or comments to the PAs in the form of an EEAC resolution.³¹ In this role, the EEAC “shall review and approve demand resource program plans and budgets, work with PAs in preparing energy resource assessments, determine the economic, system reliability, climate and air quality benefits of efficiency and load management resources, conduct and recommend relevant research, and recommend long-term efficiency and load management goals to maximize economic savings and achieve environmental goals.”³²

The EEAC adopted its resolution on the draft Plan during its regular EEAC meeting on June 26, 2024, and submitted it to the PAs on July 2, 2024 (“July Resolution”). The PAs then have 45 days to issue a response to the July Resolution (“August Update”). The PAs submitted the August Update to the EEAC on August 15, 2024 that describes each EEAC recommendation, whether and how the PAs intend to address the issue as part of the Plan,

³⁰ G.L. c. 25, § 21(c). For the 2025-2027 Plan, because Mar. 31, 2024 was a Sunday, the PAs submitted the draft Plan on Apr. 1, 2024.

³¹ G.L. c. 25, § 21(c).

³² G.L. c. 25, § 22(b).

and all program design changes from the April draft that the PAs intend to incorporate in the final Plan filed with the Department on October 31, 2024. Per Department directive, the PAs cannot make further substantive changes to the three-year plan after they make this response. On September 25, 2024, the PAs submitted a revised Plan and supporting data tables incorporating the changes outlined in the August Update. During its regular October meeting, the EEAC reviewed and voted to approve the Plan. The EEAC must have a two-thirds majority vote to approve “efficiency and demand resource plans and budgets.”³³

In addition to the formal and collaborative process with the EEAC in the development of the Plan, the PAs also engaged a broad range of stakeholders, including customers, community partners, contractors, trade allies, manufacturers, distributors, equity advocates, evaluators, and energy experts. The PAs value and appreciate the input and strong interest in energy efficiency from Councilors, stakeholders, and customers. The PAs consider the diverse input of the EEAC in light of the PAs’ responsibility to administer the Mass Save programs in accordance with the statutory framework of the GCA, including an assessment of customer bill impacts and requirement to meet the EEA Secretary’s GHG Goal. The PAs also worked closely with the AGO, DOER, and the EEAC’s consultants to closely review aspects of the 2025-2027 Plan, savings, and cost assumptions to come to agreement on major Plan elements.

Department Review and Approval of the Plan

Every three years, the PAs file their joint three-year plan on or before October 31, together with the EEAC’s approval or comments and a statement of any unresolved issues, with the Department for its review and approval.³⁴ The Department reviews the three-year plan to ensure that it is constructed to meet or exceed the GHG Goal set by the EEA Secretary, and that each PA acquires all cost-effective energy efficiency and demand reduction resources, delivers energy efficiency programs while minimizing administrative costs, and complies with the requirements of G. L. c. 25 § 21. Within 120 days after submission, the Department “shall approve, modify and approve, or reject and require the resubmission of the plan accordingly.”³⁵ In reviewing the PAs’ three-year plans,

³³ G.L. c. 25, § 22(b).

³⁴ G.L. c. 25, § 21(d)(1).

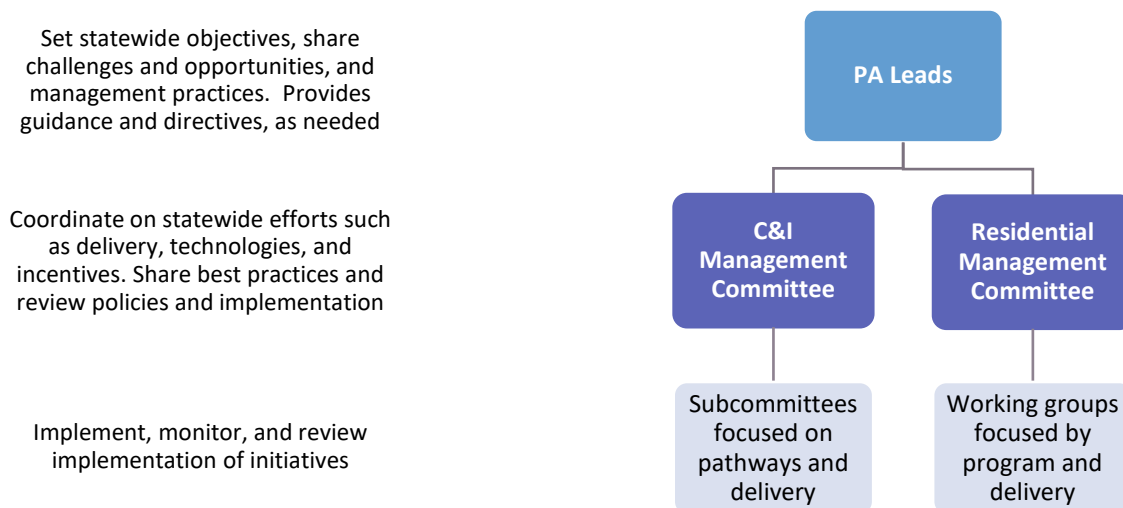
³⁵ G.L. c. 25, § 21(d)(2). Due to the deadlines set forth in the GCA, the Department does not approve the three-year plan until after the start of the new three-year program term (i.e., the end of February). In recognition of the need for continuity of energy efficiency programs, the Department has allowed for the interim continuation of existing energy efficiency programs, pending approval of proposed new programs under review. See 2013-2015 Three-Year Plans Order, D.P.U. 12-100 through 12-111, at 160-161; Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid, D.P.U. 09-116, Order Approving Motion for Interim Continuation (Dec. 30, 2009).

the Department reviews savings, cost effectiveness, budgets, bill impacts, and funding to determine whether the PAs have met their obligations under the GCA and other Department precedent.

Plan Delivery

Consistent with the GCA, the PAs jointly develop and implement the three-year plans. The PAs work collaboratively on a daily basis to ensure that all eligible customers experience seamless programs, with consistent application procedures, incentives, and supportive educational and technical services. The PAs continuously develop and share best practices and seek to improve the programs to provide the best possible customer service. The PAs have developed a management structure for program delivery, outlined below.

Figure 3: Management Structure for Program Delivery



The PA Leads team includes representatives from each PA empowered to make decisions regarding statewide objectives, work together on challenges and opportunities, and collaborate on management practices. The PA Leads also provide guidance and directives, as needed, to the Management Committees and subgroups. The Management Committees, made up of subject matter experts from each PA, coordinate statewide efforts such as delivery, technologies, and incentives, and share best practices, and review policies and implementation to ensure consistency across PAs and programs. Finally, within the Management Committees are various working groups and subcommittees tasked with more discrete issues associated with implementation, monitoring, and review of programs. At each level, the PAs strive for consistent, unanimous decisions on program delivery. If any issues arise, the PA Leads address them.

In addition to the management groups referenced above, the PAs serve on several essential committees and working groups that ensure statewide collaboration among stakeholders and consistency within and across the programs. See Figure 4 below for a list of committees and working groups.

Figure 4: Committees and Working Groups

Group / Committee	Members and Responsibilities
Common Assumptions Group	The group maintains consistent application, calculation, and presentation of savings, benefits, and costs, as well as consistent planning and reporting models.
Demand Working Group	The group works on initiatives related to reducing customer demand and statewide strategies.
Equity Working Group	Members of the EEAC established an Equity Working Group to discuss how the Mass Save programs can more equitably serve residents and businesses. The group includes representatives from DOER, the AGO, EEAC Councilors, the PAs, and other interested stakeholders.
Evaluation Management Committee	This steering committee reviews statewide evaluation activities and issues, program guidance, and direction to each of the evaluation research areas. The committee plans, prioritizes, and delineates the evaluation/research studies that they will undertake.
Low-Income Best Practices Group	This group includes representatives from the PAs, CAP agencies, and LEAN. The group discusses program implementation, new measures, innovative strategies, and other matters related to Low-Income sector offerings.
Low-Income Program Administrator Working Group	The group discusses and coordinates implementation of Low-Income sector offerings to ensure alignment across PA service territories. The group reviews new measures, strategies, program issues, referrals, and conducts document reviews.
Massachusetts Technology Assessment Committee	This proactive and reactive body addresses residential and C&I technologies, drawing on the subject matter experts from the committee, PA staff, or outside expertise, when needed. The committee has the authority for consistent program interpretation of technical matters relating to emerging technologies and provides information, documented technical interpretations, and technology assessments.
Renters Working Group	The group discusses and coordinates efforts and progress toward the strategies and tactics from the Massachusetts Strategic Renters Plan broken up by partnerships, marketing, and program initiatives. The group designs these initiatives to target renters and landlords in hopes of increasing enrollment into Mass Save programs and offerings.
Statewide Marketing Group	The group organizes statewide marketing and media campaigns, manages MassSave.com, updates social media campaigns, and works to present communications through multiple channels to reach highly diverse customer bases.

Group / Committee	Members and Responsibilities
Workforce Development Working Group	The group discusses and coordinates strategies and implementation of workforce development needs and pathways to encourage equitable participation in the clean energy workforce jobs supported by Mass Save programs. The group covers news initiatives, partnership opportunities, program teams' solicitation of feedback from vendors, and collaboration on diversifying the workforce.

As stated above, throughout the term, the PAs coordinate with LEAN and receive input and feedback from the EEAC and its consultants, implementation partners, state agencies, and many other interested stakeholder groups to iterate and improve program delivery. This drive to provide an ever-improving plan inevitably leads to updates in the programs during the term. Indeed, the Department has recognized the need for flexibility to make modifications to be able to adapt the programs to an ever evolving marketplace. If a change is significant enough, however, the Department considers it a mid-term modification and the Department and/or EEAC must approve the change prior to implementation. The Department outlined the different categories of mid-term modifications in the Guidelines. Additionally, the PAs must also give notice to the Department 90 days prior to terminating a measure without substituting it with a similar, more efficient measures.

2.2 Statutory and Regulatory Requirements

2.2.1 Summary of Budgets, Lifetime Savings, and Benefits

The Program Administrators present their program budgets, savings, and benefits in the 2025-2027 Plan on an aggregate, statewide basis. As detailed in the data tables, each PA provides its individual proposed savings and budget levels for the three-year term beginning January 1, 2025, consistent with the statewide program designs and the Guidelines. Please see Appendix C: Statewide Energy Efficiency Data Tables for budgets, savings, benefits, and cost-effectiveness calculations. As described in section 5.4: Operational Metrics and Key Performance Indicators, the PAs have established key metrics for the 2025-2027 term, designed to measure success and support their overall comprehensive approach to increasing energy efficiency and reducing GHG emissions.

Following historic aggregate savings achievements, the goals in this Plan reflect the current market after years of energy efficiency programming in Massachusetts, the unique characteristics of each PA's service area, the specific needs of each PA's customers, and the Commonwealth's policy goals related to energy and GHG emission reductions. The Mass Save programs provide benefits for customers related to avoided costs, non-energy impacts ("NEIs"), GHG emission reductions, and job growth and retention.

Statewide Combined Data

Figure 5: Statewide Net Lifetime Savings, All Fuels (MMBtu), excluding ConnectedSolutions

	2025	2026	2027	2025-2027
Residential	30,600,174	33,271,201	38,243,157	102,114,532
Low-Income	11,570,529	12,304,696	13,183,654	37,058,879
Commercial & Industrial	15,594,317	16,672,679	16,185,728	48,452,724
Total	57,765,020	62,248,576	67,612,539	187,626,135

Figure 6: Statewide Benefits (\$)

	2025	2026	2027	2025-2027
Residential	\$2,123,232,820	\$2,314,749,446	\$2,731,202,922	\$7,169,185,188
Low-Income	\$924,185,006	\$981,529,159	\$1,051,818,776	\$2,957,532,941
Commercial & Industrial	\$1,183,596,752	\$1,256,123,628	\$1,225,312,816	\$3,665,033,197
Total	\$4,231,014,578	\$4,552,402,233	\$5,008,334,515	\$13,791,751,326

Figure 7: Statewide Budgets (\$)

	2025	2026	2027	2025-2027
Residential	\$825,242,914	\$881,383,545	\$994,725,963	\$2,701,352,421
Low-Income	\$352,754,214	\$390,715,485	\$430,739,510	\$1,174,209,208
Commercial & Industrial	\$346,223,789	\$384,881,288	\$392,113,017	\$1,123,218,095
Total	\$1,524,220,917	\$1,656,980,318	\$1,817,578,490	\$4,998,779,724

Figure 8: Statewide Adjusted Gross Lifetime GHG Emissions Reductions (CO₂e)

	2025	2026	2027	2025-2027
Residential	2,503,722	2,734,748	3,186,666	8,425,136
Low-Income	829,796	891,023	960,486	2,681,305
Commercial & Industrial	1,249,273	1,333,527	1,315,317	3,898,117
Total	4,582,791	4,959,298	5,462,470	15,004,558

Statewide Electric Data

Statewide tables reflect aggregated proposals of the individual electric PAs.

Figure 9: Electric PA Net Lifetime Savings All Fuels (MMBtu), excluding active demand response (“ADR”) programs

	2025	2026	2027	2025-2027
Residential	17,867,074	19,431,524	22,736,705	60,035,303
Low-Income	4,973,196	5,459,327	5,985,942	16,418,465
Commercial & Industrial	10,003,167	10,499,570	9,409,248	29,911,985
Total	32,843,437	35,390,421	38,131,895	106,365,753

Figure 10: Electric PA Net Lifetime Electric Energy Savings (MWh), excluding electrification and ConnectedSolutions

	2025	2026	2027	2025-2027
Residential	874,414	872,436	930,429	2,677,279
Low-Income	383,676	409,231	442,305	1,235,211
Commercial & Industrial	1,447,356	1,424,064	1,258,987	4,130,407
Total	2,705,446	2,705,731	2,631,720	8,042,897

Figure 11: Electric PA Net Summer Peak Demand Reductions (kW), including ConnectedSolutions

	2025	2026	2027
Residential	137,148	154,498	170,737
Low-Income	4,075	4,296	4,623
Commercial & Industrial	163,789	174,391	180,791
Total	305,012	333,186	356,150

Figure 12: Electric PA Budgets (\$)

	2025	2026	2027	2025-2027
Residential	\$511,799,125	\$546,046,166	\$621,210,888	\$1,679,056,178
Low-Income	\$208,417,084	\$239,092,791	\$270,358,026	\$717,867,900
Commercial & Industrial	\$253,307,436	\$283,653,877	\$283,342,337	\$820,303,650
Total	\$973,523,644	\$1,068,792,834	\$1,174,911,251	\$3,217,227,729

Figure 13: Electric PA Adjusted Gross Lifetime GHG Emissions Reductions (CO₂e)

	2025	2026	2027	2025-2027
Residential	1,506,972	1,647,565	1,960,797	5,115,334
Low-Income	396,012	440,841	487,048	1,323,901
Commercial & Industrial	783,841	826,365	761,905	2,372,111
Total	2,686,824	2,914,772	3,209,751	8,811,347

Statewide Natural Gas Data

Statewide tables reflect aggregated proposals of the individual gas PAs.

Figure 14: Gas PA Net Lifetime Savings (MMBtu), All Fuels

	2025	2026	2027	2025-2027
Residential	12,733,100	13,839,677	15,506,452	42,079,229
Low-Income	6,597,333	6,845,369	7,197,712	20,640,414
Commercial & Industrial	5,591,150	6,173,109	6,776,480	18,540,740
Total	24,921,584	26,858,155	29,480,644	81,260,382

Figure 15: Gas PA Net Lifetime Gas Savings (Therms)

	2025	2026	2027	2025-2027
Residential	106,735,623	115,764,911	129,303,649	351,804,183
Low-Income	71,130,159	73,968,094	77,932,122	223,030,375
Commercial & Industrial	67,961,435	81,417,685	89,074,182	238,453,302
Total	245,827,217	271,150,690	296,309,953	813,287,860

Figure 16: Gas PA Budgets (\$)

	2025	2026	2027	2025-2027
Residential	\$313,443,789	\$335,337,379	\$373,515,074	\$1,022,296,243
Low-Income	\$144,337,130	\$151,622,694	\$160,381,484	\$456,341,308
Commercial & Industrial	\$92,916,353	\$101,227,411	\$108,770,680	\$302,914,445
Total	\$550,697,273	\$588,187,484	\$642,667,238	\$1,781,551,995

Figure 17: Gas PA Adjusted Gross Lifetime GHG Emissions Reductions (C02e)

	2025	2026	2027	2025-2027
Residential	996,750	1,087,183	1,225,869	3,309,801
Low-Income	433,784	450,181	473,438	1,357,404
Commercial & Industrial	465,432	507,162	553,412	1,526,006
Total	1,895,967	2,044,526	2,252,719	6,193,211

2.2.2 Common Assumptions and the Technical Reference Manual

The PAs continuously work together to develop and apply common assumptions. Consistent collaboration and structured review of common assumptions through the working groups allows the PAs to collectively provide the best available data in a consistent manner. The PAs work together to standardize assumptions and approaches to

various costs, savings, and benefits data. The PAs coordinate the application of the avoided costs from the Avoided Energy Supply Costs in New England (“AESC”) studies and evaluation results. In addition, the PAs collaborate to maintain similar data definitions, measure identifications, naming conventions in the screening models, reporting tables, and the Technical Reference Manual (“TRM”).

As set forth in the TRM, the PAs account for specific program assumptions uniformly and apply algorithms in the same manner across the PAs. The TRM documents how the PAs consistently, reliably, and transparently calculate savings resulting from the installation of prescriptive energy efficiency measures. The TRM provides methods, formulas, and default assumptions for estimating energy, peak demand, and other resource impacts from energy efficiency measures. The TRM is an excellent example of how the PAs work together, share data and best practices, and work to develop common assumptions that reflect Evaluation, Measurement and Verification (“EM&V”) results. For the 2025-2027 Plan, the PAs reviewed the TRM for each prescriptive electrification offering to ensure the measure assumptions were accurate. The PAs have transitioned the paper TRM manual into an electronic version (the “eTRM”), which is available publicly, provides more search functions to aid users, and is user friendly (see Appendix L: Technical Reference Manual).

Since 2022, the PAs have applied evaluation results on a prospective-only basis instead of applying them both retrospectively and prospectively. For the 2025-2027 term, the PAs will update gross savings assumptions, and net and gross impact factors each year based on the latest evaluation studies and apply them on a prospective basis to calculate savings in later years. At the beginning of each year, the PAs will post the current eTRM online.

2.2.3 Development of Goals

Introduction

The PAs engage in a collaborative and detailed planning process for setting goals and budgets. This process includes reviewing many conditions that affect savings goals and costs, such as regulatory requirements, the Commonwealth’s goals, stakeholder input, program designs, including changes and related opportunities and costs, opportunities to improve access for select communities, barrier mitigation, market conditions, workforce availability, bill impacts, training, education, and marketing needs to support the programs, potential studies, and the energy efficiency and electrification needs and objectives of customers within each sector and service territory. The PAs also consider evaluation results, including the findings from impact evaluations on claimable savings and process evaluations, to inform programs and goals.

Decisions that inform savings goals and budgets are made both at the individual PA level and at the statewide level, including work by the respective management committees, which help ongoing stakeholder input,

continuous sharing of best practices, and consistency of offerings among the PAs. The results associated with the development of a PA's plan are PA-specific and the planning process for savings varies for each program and initiative. However, certain common processes inform the development of savings goals and facilitate regulatory review.

Process to Determine Goals

2025-2027 Plan Goals

While there were many considerations affecting goal setting in this Plan, as a primary mandate, the PAs constructed this 2025-2027 Plan to meet or exceed the GHG Goal set by the EEA Secretary per the 2021 Climate Act. The 2021 Climate Act does not provide a precise method for determining the amount of GHG emissions reduced from a three-year plan. In fact, the legislation contemplates that there may need to be updates and revisions to the method of calculating GHG emissions.³⁶ The Massachusetts Clean Energy and Climate Plan for 2025 and 2030 ("2025 CECP" and "2030 CECP", respectively) and the 2050 Decarbonization Roadmap ("2050 Roadmap") provide a method for calculating GHG emissions, which the EEA Secretary adopts in prescribing the GHG Goal.

The EEA Secretary established the GHG Goal in her March 1, 2024, letter (see Appendix V: EEA Secretary's GHG Goal Letter) at 1.0 million metric tons of CO₂e by 2030, and allocated 625,000 metric tons to the electric PAs and 375,000 metric tons to the gas PAs.³⁷ The GHG Goal Letter requires the PAs to achieve this goal assuming a total statewide budget of less than \$5.0 billion. The Plan proposes to achieve just over 1.0 million metric tons of CO₂e by 2030 with a statewide budget of \$4.99 billion. The GHG Goal Letter directs the PAs to model the achievement of a 2.2 million metric tons of CO₂e by 2030, by using the same equity to market-rate ratio of investment. The PAs provided this model to the EEA Secretary for review and consideration.

The GHG Goal Letter calculates the amount of GHG emissions savings based on the amount of energy savings tied to a given measure and multiplies each energy efficiency measure's energy savings by an emissions factor. The EEA bases the emissions factor on the type of energy saved (e.g., electricity or natural gas). While the emissions factors for fossil fuels stay constant, the EEA's electric emissions factors assume significant electric grid decarbonization by 2030, thereby leading to reduced GHG savings over time. As a result, GHG emission reductions

³⁶ See G.L. c. 25, §21(d)(5) (requiring the Department to use updated methodology to calculate whether the Plan attains the GHG Goal).

³⁷ The GHG Goal Letter noted flexibility in the allocation of the GHG emissions reductions by sector to facilitate the achievement of the overall GHG Goal. See GHG Goal Letter at 2.

associated with electric energy savings measures tend to be lower than those associated with measures that displace fossil fuels. The GHG Goal Letter, however, does not foreclose the potential for the 2025-2027 Plan to target GHG reduction measures, even if those measures do not save energy. So, to achieve the GHG Goal, the PAs intend to target GHG reduction measures in the 2025-2027 term, even if they do not always save energy.

The PAs currently plan to offer measures that avoid emissions associated with non-combustion GHGs including: (1) behind-the-meter natural gas leak mitigation, and (2) refrigerant leak mitigation and retrofits. For behind-the-meter gas leak mitigation, the PAs will use a methane equivalent global warming potential (“GWP”) value of 28, as defined by the US Environmental Protection Agency (“EPA”).³⁸ For refrigerants, the PAs will follow the typical procedures associated with custom projects and calculate individual site-level estimates of GHG savings by using the GWP factor published by the EPA for the refrigerant(s) in use at the site. Given the complexity of calculating these refrigerant savings, the PAs plan to work with their evaluation and technical teams to lay out a framework for this savings calculation, including determining baselines and measure lives, as well as establishing procedures for documentation and measurement protocols. Like how the PAs currently calculate custom savings, all savings would be subject to final evaluation results.

When calculating GHG emission reductions, the GHG Goal Letter also considers the life of the measure. The EEA Secretary decided to use measure lives, as calculated effective March 1, 2025, to set and assess achievement toward the GHG Goal. Significantly, when determining the cost effectiveness of program investments, the EEA Secretary requires the PAs to use a social discount rate of 1.5 percent for the social cost of carbon.

All-Available Cost-Effective Energy Efficiency

In the 2025-2027 Plan, the PAs balance achievement of the mandated GHG Goal with the GCA’s continuing requirement to address capacity and energy costs for all customers through all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply. There is no simple, algebraic method to evaluate whether the PAs have met their mandate of all available cost-effective energy efficiency. As the Department has recognized, in the pursuit of all available cost-effective energy efficiency, the PAs must balance cost-effectiveness review with bill impacts and the prudent use of customer funds. The PAs must also focus on programming and delivery models that result in equitable access to services and programs for select, underserved populations.

³⁸ See EPA, [Emission Factors for Greenhouse Gas Inventories](#), last modified Jun. 5, 2024.

The PAs need to maintain reasonable bill impacts and plan to a budget within \$5 billion. This balance causes a tradeoff between obtaining all cost-effective energy efficiency with achieving the GHG Goal, which the PAs considered when setting the goals of achieving all available cost-effective energy efficiency. Considering this objective, the PAs' process considers many factors, including the assessment of savings opportunities in individual PA service areas (bottom-up), the incorporation of recent evaluation findings, and a collaborative consideration of statewide policy goals that balances the GHG and energy savings goals against the total cost and feasibility of capturing all energy efficiency (top-down process).

The bottom-up process requires the PAs to determine savings measure by measure, including estimating quantities and customer incentives for every piece of energy-efficient equipment, and the type of technology or program service. The top-down process looks at the portfolio, evaluating the potential for achieving savings given the markets in which the programs are operating, subject to overall cost. The PAs consider evaluation results, including impact, process, and market assessment studies, in both bottom-up and top-down planning which may drive other adjustments. The process to determine goals is appropriately fluid, flexible, and iterative, incorporating information the PAs learn throughout the planning process related to program design, evaluation, market conditions, costs, and other factors.

Considerations

In developing their goals, the PAs considered the requirement to reach the GHG Goal, as well as: (1) the need to plan for a sustainable effort in the continued delivery of energy efficiency, (2) consideration of new technologies and enhancements, (3) the results of avoided costs, and potential and evaluation studies, and (4) the need to design programs to address identified barriers. The PAs also prioritized program and delivery models that will result in equitable access to services and delivery of benefits for select underserved communities and customer groups as described in section 1: Equity.

Finally, the PAs considered a budget target of less than \$5 billion over the 2025-2027 term, as established in the EEA Secretary's GHG Goal Letter. The Program Administrators considered many interacting factors, including, but not limited to, commitment to equity, economic and environmental benefits, bill impacts, cost efficiency, quality of program implementation, barriers to participation, contractor and market infrastructure, efforts focused on innovation, customer experience, customer economic conditions, bill impacts, changing market conditions and transformation efforts, the need to provide consistency over time to be able to capture time-dependent opportunities such as renovations and new construction, the need to accommodate new technologies over time, input and consideration of priorities articulated by the EEA, DOER, the AGO, the EEAC, stakeholders, and public commenters, and the need to set up an integrated effort that can be sustained over time.

In their planning process for the 2025-2027 term, the PAs included a focus on customers' experiences with the suite of energy efficiency and electrification programs, and in particular how to improve the experiences of moderate-income residential customers, tenants and owners of residential rental units, LOTE customers, small businesses (both tenants and property owners), customers living in mixed-income multifamily buildings, and customers in designated equity communities with a high share of low- and moderate-income customers and renters. The Program Administrators dedicated significant effort and expertise to the design of the Residential and Low-Income sector programs and initiatives to better serve customers who are energy burdened or qualify as low or moderate income. In addition, across all sectors, the PAs updated the design of programs and initiatives to enhance and expedite the delivery of electrification measures. These updates will help maximize energy efficiency savings and benefits through electrification.

Bottom-Up Planning

As a foundation for each three-year planning process, the Program Administrators examine historical data to gain insight into participation trends, savings achieved, and the costs to achieve annual and lifetime savings. The PAs also consider recent or pending changes in federal efficiency standards, state energy efficiency codes, local building climate and energy ordinances, as well as other third-party research on consumer adoption of new technologies. In parallel, the Program Administrators collectively collaborate to decide what changes, if any, they need to make to program offerings, while each PA assesses what they individually can achieve over the next three years. For example, the PAs may collectively decide to discontinue measures that have become standard efficiency practice, or to add new measures and services in response to improved technologies or identified consumer needs, subject to consideration of cost effectiveness. The PAs determine the value of energy benefits through the 2024 AESC Study, which also guides the PAs as they strive to achieve all cost-effective energy efficiency opportunities.³⁹

The respective management committees and working groups undertake the statewide planning work, ensuring input from stakeholders, continuous sharing of best practices, and facilitating consistency of offerings among the PAs. Each PA uses this information to develop an estimate of energy efficiency and electrification they can achieve in each sector and in their unique service territory. The PAs consult with vendors to support or augment their estimates based on their own market intelligence. The Program Administrators may also consult manufacturers and contractors for their insight into workforce capacity and technical feasibility.

³⁹ The 2024 AESC study is available at Appendix H: Avoided Energy Supply Components in New England: 2024 Report.

Top-Down Planning

While bottom-up planning focuses on individual measures within each PA's service territory, top-down planning considers what is achievable for the entire statewide portfolio. This planning effort involves examining impacts on the markets the programs are targeting, as well as cost implications for the individual PA and their participating and non-participating customers. Among other things, the PAs use potential studies for top-down planning, which helps them to better understand the potential opportunity to achieve energy efficiency savings within their service territory. Potential studies typically provide the PAs with insight into three types of energy efficiency potential:

- **Technical potential** is the complete adoption of energy efficiency and decarbonization measures that are technologically feasible without consideration of cost or consumer acceptance.
- **Economic potential** is a subset of technical potential consisting only of that technology that results in more estimated benefits than costs over the measure's life.
- **Achievable potential** is a subset of economic potential and limited to that which is attainable given customer barriers, market barriers, or other limitations.⁴⁰

The PAs use the results of potential studies to gain valuable insight into the achievable, cost-effective energy efficiency potential for the Residential, Low-Income, and C&I sectors over a period of years. In advance of the 2025-2027 Plan filing, the PAs collectively undertook a statewide potential study with territory specific results in accordance with the Department's directives.⁴¹ This method advanced the PAs' objective of using a consistent set of measures and measure characteristics, while allowing for a presentation of findings using common definitions for the various levels of achievable potential, common benefit-cost inputs, and common savings assumptions for high-impact measures. Study results are therefore more readily comparable, yet also PA-specific. The overall consistency across the PAs' potential studies in terms of timing, presentation of results, and definitions enhances their value to the Department and stakeholders.⁴²

The potential study considers a wide range of factors to estimate potential savings over time including, but not limited to, the size of the market, economic trends, modeled market penetration and saturation of specific equipment, adoption rates for efficient equipment, costs and benefits associated with efficiency upgrades, and

⁴⁰ Potential definitions are based on American Council for an Energy Efficient Economy ("ACEEE") definitions.

⁴¹ 2016-2018 Three-Year Plans Order at 24-25; 2019-2021 Three-Year Plans Order at 38.

⁴² 2019-2021 Three-Year Plans Order at 38.

market barriers. In general, the potential study relied on the most recent TRM available at the time of the studies and net-to-gross (“NTG”) assumptions for the current term. The potential study provides a top-down estimate to inform high-level planning as the PAs did not design the study to provide detailed assessments of potential at the municipal level (aside from service territory).

The potential study is based on models that estimate potential savings with specific inputs related to measuring costs and savings in various building types. Therefore, the PAs do not use potential studies to suggest specific changes to programs or to model alternative program designs. In conjunction with other data sources and experience implementing programs, the PAs use the results of the potential study to gain insight into the remaining achievable, cost-effective potential opportunity at the state and PA-specific level for energy savings and GHG emissions reductions over the next three-year period. The potential study is an important source to inform overall goals, expected energy savings trends, and areas of opportunity for investment.

The potential study, in addition to providing technical, economic, and achievable scenarios as described above, looks at several other achievable potential scenarios to understand the sensitivity of achievable savings to inputs such as increased incentive levels and higher levels of spending on marketing and program awareness. The study includes statements of potential ranging from looking at the “business as expected” case using current incentive levels, up to a “CECP” scenario. The CECP scenario models how the PAs achieve savings levels in line with state mandated CECP GHG emissions reduction levels. The PAs review these scenarios with an understanding of the need to minimize customer bill impacts, and the need to maintain sustainable energy efficiency and decarbonization efforts over time.

The PAs also consider any changes in market conditions, potential program design enhancements, policy directives at both the state and federal levels, and other information that may impact the estimates of available energy savings provided by the potential studies. The potential study materials are available at Appendix N: Potential Studies.

Joint Electrification Funding and Delivery

The 2025-2027 Plan includes a novel approach to funding and delivering retail heat pumps to residential and C&I customers on a statewide basis. Collectively, the PAs have developed statewide goals for prescriptive electrification measures, and allocated associated costs, savings, and benefits to each gas and electric PA based on a distribution formula centered on territory specific production, which will also be used for reporting purposes

and fixed for the duration of the term.⁴³ Costs allocated include incentives, HEAT Loan costs, and sales, technical assistance, and testing (“STAT”) costs insofar as they are related to delivery of the measures (processing and QA/QC fees). However, each PA will continue to budget for and report on its incurred costs for program, planning, and administrative (“PP&A”) costs related to retail heat pumps and each PA will continue to budget for and report on their incurred costs. This design will motivate all PAs to drive heat pump adoption, regardless of location.

For planning purposes, the PAs have grouped all prescriptive electrification measures together and included them under relevant core initiatives in the Residential and C&I sectors in a single, statewide benefit-cost model. Grouping them together helps the PAs mitigate potentially large bill impacts to customers in select communities because all ratepayers will bear the cost of electrification and associated GHG emissions reductions, not just customers in a PA territory where they are installing heat pumps. Similarly, the PAs will also collectively monitor the shared budget, so in the event it exceeds the Department’s threshold for a mid-term modification, all PAs would request the mid-term modification.

Customers served by at least one electric or gas PA will be eligible to receive a heat pump rebate. In municipal electric utility territories, gas customers will be eligible so long as they have natural gas service on site for at least two years.⁴⁴ For customers in municipal electric utility territories who are not served by gas, this innovative new approach could also allow these municipal electric utilities to participate; however, the PAs have not worked out the exact nature of the participation details.

To ensure they meet statutory minimum spend thresholds, the PAs will not make any changes to their current approach for the Low-Income sector programs. For income-eligible customers, their PA will continue to claim heat pumps delivered to them and not include these units in the combined statewide umbrella designed for market-rate residential customers. The PAs will continue to include Low-Income sector heat pumps in PA-specific benefit-cost models. Additionally, the PAs will not include heat pumps delivered through the residential turnkey pathway.

The electric PA, with participation by the gas PA throughout the process, will lead any C&I custom electrification projects undertaken by customers with both a gas and electric PA. This means that the electric PA will assist the customer with the initiation of technical assistance studies, conducting any required pre- or post-project QA checks, and guiding projects through the approval process. The electric PA and gas Pa will split the costs and benefits of the custom project, 62 percent, and 38 percent, respectively. Small gas PAs may elect to opt out of

⁴³ Performance incentives will also be similarly allocated. While the Compact does not receive performance incentives, the allocation percentages for the other PAs will be the same.

⁴⁴ This only applies to municipal electric utility customers where the municipal utility has not opted into being served by the programs.

funding electrification projects if they exceed their planned custom C&I electrification budget, in which case the electric PA would assume all budget and savings for the project. For municipal electric territories, the Program Administrators will attribute the projects entirely to the gas PA. For C&I custom electrification projects, the PAs will treat them the same as other measures to calculate performance incentives and will report them in PA-specific benefit-cost models.

To implement a coordinated and smooth transition, the PAs are proposing that the current process for processing custom electrification projects will remain in place until the PAs receive an Order on the Plan. Assuming the Department approves the split approach, any projects that received a letter of authorization prior to the date of that Order would remain with the PA who sent the letter; otherwise, the PAs will transfer any in-flight projects with gas customers to the electric PA. The PAs intend to implement this structure for the 2025-2027 Plan under the agreed upon allocations for cost sharing and performance incentives. The intent of the design is to keep the framework for future three-year plans, while allowing for changes in cost-sharing formulas.

Evaluation Results

As noted above, the PAs also use the results of independent third-party evaluations to inform proposed goals. As part of the statewide EM&V framework, the PAs collectively conduct many different types of evaluation studies, including impact evaluations, baseline studies, NTG studies, market effects evaluations, NEI studies, cost and measure life studies, market characterization studies, and embedded and process evaluations. For more information on each type of study please see section 4: Evaluation, Measurement, and Verification, Appendix S: Strategic Evaluation Plan, Appendix T: Evaluation Study Summaries, and Appendix U: Evaluation Studies.

Cost Driver Considerations

A final step in energy efficiency and electrification goal setting for the three-year term is to develop the budgets required to deliver the energy efficiency and electrification programs to the marketplace. This involves assessing the cost impact of the programs on participating and non-participating customers in support of “right sizing” proposed budgets. As the PAs pursue more complex and deeper opportunities (e.g., building and equipment controls, weatherization in the C&I sector, electrification of various types of buildings and end uses, and active demand reduction), there is an expected increased cost for them to market, deliver, track, and evaluate more complex programs. More sophisticated efforts and higher incentives designed to reach underserved customer groups will also contribute to increased costs.

To address these challenges and deliver cost-effective energy efficiency and GHG emissions reduction programs to their customers, the PAs have developed a thorough understanding of current and future cost drivers. As each cost driver affects each PA to a different degree, the PAs expect variations in savings goals and the cost to achieve them. Customer demographics, fuel mixes, economic conditions, differences in the built environment, and even contractor wages vary widely across the state and impact each PA's service territory differently. Each PA develops its goals and budgets based on its own unique service territory while considering the statewide goals for the term. The figure below details additional key cost and savings driver considerations.

Figure 18: Key Cost and Savings Drivers

Key Cost and Savings Drivers	Considerations
Measure mix	Given the focus on GHG emissions reductions and electrification, the PAs are investing significantly more than ever before incentivizing the adoption of heat pumps, which are expensive measures, and which increases the cost of achieving energy savings.
Equity	Efforts to ensure equitable delivery and distribution of benefits are a cornerstone of the Plan and the Commonwealth's efforts to decarbonize the building sector, as emphasized in the EEA Secretary's GHG Goal Letter and the EEAC's priorities. The PAs recognize that expanding no-cost offers and facilitated delivery to a larger share of historically underserved customers is essential to achieving these equity goals. While this approach may result in higher unit costs of savings, it is a necessary step to ensure that all communities, particularly those historically underserved, can fully participate in and benefit from the Commonwealth's decarbonization efforts.
Increased baselines	In addition to increasing efficiency required from updated codes and standards, markets are adopting more efficient practices due to innovation, enhanced technology, and the evolution of industry standard practice. The PAs account for naturally occurring market adoption of efficient equipment and practices through evaluation studies and adjust the savings attributable to them accordingly. While these trends result in real savings for customers in the state, they reduce the incremental energy savings the PAs can capture and claim through their programs.
Strategies to foster greater participation and deeper savings	As the PAs seek to increase participation in their programs across all customer groups, they will invest more resources in reaching customer groups historically underserved. These efforts will continue to require financial investments in partnerships, enhanced marketing, language access, and more robust incentives, among other strategies. In addition, the PAs are committed to helping C&I customers decarbonize. As part of this effort, the Plan proposes to support a range of new studies to help medium and large commercial customers develop a comprehensive roadmap for decarbonization and assess opportunities for building commissioning, among others. While these efforts will lead to increases in non-incentive costs, the PAs believe they are critical to supporting long-term transformation of the C&I sector necessary to achieve the Commonwealth's climate goals over future plan periods.

Key Cost and Savings Drivers	Considerations
	The PAs are also working to improve the customer experience, including through the launch of a new statewide client contact center and the LEAN Statewide Client Services Center. Finally, the PAs are also supporting the contractor network as they expand, diversify, and upskill the workforce. These investments are essential to the long-term success of the programs but do not produce directly claimable savings, leading to increases in the cost to achieve savings and benefits in the short term. An additional consideration is the transfer of \$72 million in customer funds from the Mass Save programs to the Massachusetts Clean Energy Center (“MassCEC”). The PAs expect that this transfer will increase workforce diversity and help ensure diverse trainees and businesses have the opportunity to work within the network of Mass Save contractors and vendors once they complete their training. This should help the PAs succeed in creating a more diverse workforce that represents the communities in which they serve.
Cost effectiveness and avoided costs	The 2024 AESC Study estimated lower wholesale natural gas and summer electric capacity avoided costs, but higher electric energy and delivered fuel avoided costs than the 2021 AESC Study. For natural gas avoided costs, the study also assumed Massachusetts will achieve the GHG sub-limit targets propagated by the EEA Secretary, which would require reducing the emissions intensity of combustion fuels through blending with emissions-neutral alternatives, like green renewable natural gas. This policy assumption increased overall natural gas avoided costs. Updated EPA guidance on the social value of GHG emission reductions yielded a higher recommended value of the social cost of carbon compared with the 2021 AESC Study. As a result, the PAs have assigned more-per-unit of economic value for energy savings than in the prior term, providing an economic signal for the PAs to pursue the ambitious goals detailed in this Plan. The PAs are pursuing new delivery options and technologies to capture untapped energy efficiency and decarbonization potential. However, these efforts are not without cost, which puts pressure on programs in the short term. Additionally, the Plan contains measures that reduce GHG emissions but may not save energy or may potentially increase energy usage.
Unique service area drivers	Despite consistent program offerings, there are variations among the PAs in their savings goals and costs to achieve due to each PA’s unique service territory. Each PA’s territory has a distinct mix of customers, markets, and vendors. Contributing to these differences are varying customer demographics, different mixes of building and business types, penetration of natural gas and delivered fuels, economic conditions, depth of community engagement, and population density. Each PA’s territory has unique commercial and residential demographics, which may result in differences in how each PA approaches program delivery. For example, the service territory of one PA may have a smaller percentage of commercial customers than the statewide average, and thus may not be able to benefit from the higher savings opportunities that typically correspond with that customer segment. Similarly, a PA may have a higher proportion of lower-income residents, requiring greater coordination with the community and higher costs to serve. Unique characteristics of smaller territories are more apparent than in larger territories, which represent a broader array of customers and communities that make these unique characteristics less visible. Variances among the PAs’ plans

Key Cost and Savings Drivers	Considerations
	are therefore appropriate, consistent with sound regulatory policy, the GCA, and previous Department recognition of PA differences. In setting their goals, each PA has used knowledge of its unique service territory, and inputs and insights from its PA-specific results from the potential study to design programs that best meet the needs of its customers. Each PA is committed to achieving all available cost-effective energy efficiency and GHG emissions reduction goals in accordance with statute.
PA collaboration with stakeholders	As part of developing goals and budgets, the PAs engaged in discussions with the EEAC's consultants regarding the bottom-up planning assumptions. The PAs also considered the multiple (and sometimes conflicting) priorities of the EEAC members and other stakeholders in planning for cost-effective savings opportunities in the 2025-2027 Plan. Finally, the PAs worked with the DOER and the AGO to review all aspects of the 2025-2027 Plan, including savings and cost assumptions.
Inflation	Inflation continues to drive up the cost of labor and materials, which increases the cost of delivering the programs and achieving savings across each cost category.

2.2.4 Cost Effectiveness and Benefits

Cost Effectiveness

The PAs have projected the expected benefits and costs associated with the 2025-2027 Plan to be consistent with the requirements of the Guidelines and D.P.U. 08-50-A, in which the Department reaffirmed that “the Total Resource Cost (“TRC”) test is the appropriate test for evaluation of the cost effectiveness of customer-funded energy efficiency programs.”⁴⁵ The scope of the TRC test includes costs and benefits that accrue to the energy system and program participants, but ignores other societal costs and benefits.⁴⁶ A Plan is considered cost effective under the TRC test if the cumulative present value of each sector’s benefits is equal to or greater than the cumulative present value of the total resource costs associated with delivering that sector’s programs.⁴⁷ Under the GCA, for the purposes of cost-effectiveness screening, programs are aggregated by sector.⁴⁸ As set forth in the Guidelines, an energy efficiency program and core initiative also should be designed to be cost effective over the term.⁴⁹ To conduct the TRC test, the PAs have developed detailed benefit/cost-screening

⁴⁵ See D.P.U. 08-50-A at 14.

⁴⁶ See River Run Condominium Trust, D.P.U. 07-49, at 11 (2008). However, the TRC test includes calculations of the social value of GHG emissions reductions, except in the cases of conversions from fossil fuel heating and cooling to fossil fuel heating and cooling, as required by statute.

⁴⁷ See Guidelines § 3.4.3.1.

⁴⁸ See G.L. c. 25, § 21(b)(3), as revised by Acts of 2018, c. 227.

⁴⁹ See Guidelines § 3.4.3.1.

models, and use these models to reflect assumptions relating to program costs and benefits, the discount rate, the general rate of inflation, and avoided costs.

The TRC test includes all PA costs and program participant costs. PA costs include program implementation expenses, evaluation costs, proposed performance incentives, and tax liability for performance incentives. Program participant costs include initial costs incurred by customers resulting from their participation in the program, including, but not limited to: (a) the net cost of energy-efficient equipment; (b) the cost to plan for and install energy-efficient equipment; and (c) the cost of energy efficiency services, such as energy audits or inspections for proper equipment functioning.⁵⁰ The Department previously found that societal consequences of state and federal tax credits for energy efficiency equipment can be excluded from the TRC test.⁵¹ Thus, the net cost of energy efficiency equipment for participants should be reduced by the value of the tax credits claimed by the participant.⁵²

While the Department has yet to ask about other types of subsidies, the PAs intend to similarly exclude from the TRC test of specific projects any subsidy or funding related to:

- Government and foundation grants, including the Massachusetts Renewable Energy Trust.
- Federal, state, and municipal economic development program funds, such as rebate and grant funding available under the Inflation Reduction Act (“IRA”) and the Bipartisan Infrastructure Law (“BIL”).
- Environmental impact or improvement program funds.
- Other incentive payments to the extent that customers do not exclusively fund these subsidies.

Like state and federal tax credits, these subsidies are societal costs that fall outside the scope of costs to the energy system and program participants. However, the PAs will require proper documentation or support evidencing that these subsidies are known and then will apply them. Proper documentation or support will depend on the type of measure and subsidy but may include an attestation from the customer that they applied for or will apply for the subsidy. Charges on Massachusetts electric and gas bills should not fund this subsidy and the incentive should never exceed the TRC. Accordingly, the PAs will incorporate these subsidies when calculating the net cost of efficiency equipment for participants when screening projects for cost effectiveness.

⁵⁰ See Guidelines § 3.4.5.3.

⁵¹ See D.P.U. 07-49, at 12.

⁵² See D.P.U. 07-40, at 12.

Additionally, the PAs are proposing to remove certain non-controllable costs from the cost-effectiveness calculation at the sector level. Specifically, the PAs are looking to exclude the DOER Assessments, DOER/AGO Outside Consultants, and the Massachusetts Clean Energy Center's Workforce Development costs. These costs are outside of the PAs' control and do not have any associated savings, however, they are important efforts and the PAs must pay them. If cost effectiveness is at risk, because the PAs must pay non-controllable costs and they are outside of the PAs' influence, these costs may force the Program Administrators to reduce incentives and they may not achieve the GHG emissions reduction goals to maintain cost effectiveness. For this reason, the PAs believe it is appropriate to remove these non-controllable costs from cost-effectiveness screening and are requesting a change to the Guidelines in order to authorize the PAs to make these changes.

Benefits included in the TRC test are the value of avoided costs and NEIs resulting from a program over the lifetime of the measures. Benefit categories include resource benefits and NEIs (sometimes referred to as non-resource benefits). Resource benefits include avoided energy valued at different times, avoided capacity valued at peaking periods, avoided transmission, avoided distribution, and effects on energy market prices. Specifically, the PAs calculate the benefits associated with positive or negative electric, natural gas, oil, propane, water savings, and capacity savings, and energy and capacity DRIPE (demand reduction-induced price effect).⁵³ NEIs are the values associated with the positive or negative effects attributable to energy efficiency programs apart from energy savings, such as reduced costs for operations and maintenance ("O&M"), longer equipment replacement cycles and productivity improvements, reductions in costs associated with reduced customer arrearages, service terminations, and reconnections, and other measurable benefits due to the installation of the energy efficiency measure.

In accordance with the Guidelines and the 2021 Climate Act, the calculation of program benefits includes the social value calculations of GHG emissions reductions. The PAs engaged the 2024 AESC Study vendor to perform research to determine an appropriate value in advance of the final Plan filing. The 2024 AESC study is available at Appendix H: Avoided Energy Supply Components in New England: 2024 Report. The benefit/cost screening model uses this data to calculate the present value of the program benefits and costs, and then calculates ratios of these values to produce benefit-cost ratios. The model calculates the present value of costs and benefits over the expected duration of the useful life of the measures installed in the program.

⁵³ DRIPE is a measurement of the value of demand reductions in terms of the decrease in wholesale energy prices, resulting in lower total expenditures on electricity or natural gas across a given system.

Benefit Analysis Components

Overview

The PAs have developed various methods to determine the appropriate manner to measure and verify the benefits associated with energy efficiency programs. Essential elements of this analysis include using the current AESC Study, and assessing NEIs, market effects, and demand reduction initiatives. The PAs describe these elements below.

Avoided Energy Supply Cost Study

To develop avoided supply costs, the PAs participate in the AESC Study process, which is a well-established regional and collaborative process. The AESC Study projects avoided marginal energy supply costs from the reductions in the use of electricity, natural gas, and other fuels resulting from energy efficiency programs, as well as avoided environmental damages and compliance costs. The AESC Study is prepared every three years for the AESC Study Group, which is comprised of the PAs, state agencies, and other interested parties throughout New England. To inform the 2025-2027 Plan, the PAs used the 2024 AESC Study (see Appendix H: Avoided Energy Supply Components in New England: 2024 Report).

The AESC Study provides projections of avoided costs of energy in each New England state for a hypothetical future in which no entity implements new energy efficiency and electrification programs in New England (see Counterfactual #1). The 2024 AESC Study provides an updated assessment of avoided electricity, natural gas, and delivered fuel costs using a model that simulates the operation of the New England wholesale energy and capacity markets in an iterative, integrated manner. Primarily as a result from increased estimates of the value of avoided GHG emissions reductions, the 2024 AESC Study yielded increased avoided costs for energy savings. The study also provides a review of social cost of carbon methodologies, including a recommended value, which is higher than the 2021 AESC Study. The PAs applied the recommended value in the 2025-2027 Plan to all measures except fossil fuel heating and cooling measures implemented in a limited set of circumstances authorized by statute.

Non-Energy Impacts

An NEI is an impact (positive or negative) in energy efficiency beyond the energy savings gained from installing energy-efficient measures. NEIs include benefits such as reduced costs for O&M associated with efficient equipment or practices or reduced environmental and safety costs. The Department has stated that NEIs are “a well-established component of the program cost-effectiveness analyses conducted by the PAs”, and found that

the benefits of the NEIs are quantifiable and flow to Massachusetts customers.⁵⁴ The Department has specifically stated that NEIs should be included in the calculation of cost effectiveness.⁵⁵ Consistent with Department precedent, the PAs have included the costs and benefits associated with NEIs established in evaluation studies in the program cost-effectiveness calculations.

During the 2025-2027 term, the PAs are planning to complete studies on NEIs related to C&I weatherization and C&I heat pumps. Additionally, the Program Administrators will expand application of NEIs historically applied to low-income qualified measures to moderate-income qualified measures (except for NEIs specific to low-income rate discounts).⁵⁶

Demand Reduction

The PAs have included active demand reduction programs in the 2025-2027 Plan. Unlike passive demand reduction resulting from energy efficiency measures, active demand savings and benefits accrue during specified and limited time periods. Under the proposed initiatives, the PAs will call upon active demand reduction measures to perform during specified dispatch events and will claim savings based on average customer performance during those called events. Due to these unique characteristics of active demand reduction measures, the Massachusetts PAs developed a methodology for appropriately accounting for costs and benefits in the TRC test, which they first used in the 2019-2021 Plan.

The PAs recognize the critical role energy efficiency, active demand reduction, distributed energy resources, and other demand-side measures play in reducing and/or deferring the need for what would otherwise be necessary electric and gas infrastructure investments. These opportunities have become increasingly salient in light of recent Department proceedings, including non-pipe alternative evaluation requirements and targeted electrification opportunities as described in the Department's order in Docket D.P.U. 20-80, and electric distribution company investment proposals delivered through the Electric Sector Modernization Plan process. Through these proceedings and processes, the PAs are developing their wider integrated energy planning strategy, including improvements to the electric distribution system to increase resiliency and reliability, the availability and suitability of new technologies, patterns, and forecasts of distributed energy resources ("DER")

⁵⁴ See 2013-2015 Order at 61.

⁵⁵ See Guidelines at § 3.4.4.

⁵⁶ As noted in Strategic Enhancements #4 of section 3.1.2: Residential Turnkey Solutions, all properties with more than 50 percent rental units within the designated equity communities will automatically qualify for moderate-income turnkey offers. Additionally, all households within the designated equity communities automatically qualify for the moderate-income turnkey weatherization offer.

adoption, opportunities to deploy energy storage technologies, and alternatives to proposed investments. Significantly, the PAs need to assess the impacts of the Plan on the distribution system to avoid any unintended reliability issues, while they also ensure that they deliver the programs in a safe manner.

2.2.5 Cost Categorization and Budget Requirements

Overview

The PAs have developed consistent definitions and methods of assigning and allocating budget costs across all five program implementation cost categories. With respect to salaries and overhead, each PA has developed their own method to allocate these costs to appropriate cost categories. For vendor costs, the PAs use uniform practices to assign these costs based on cost-causation principles.

Program Implementation Budget Cost Category Definitions

The PAs developed and refined the program implementation cost category definitions over several years. The statewide cost category definitions for the 2025-2027 Plan listed below are consistent with the implementation of the 2022-2024 Plan. At the time of this filing, the PAs have not encountered any costs they cannot assign to one of the five cost categories listed below. The PAs assign costs to the appropriate category within the relevant program, core initiative, or hard-to-measure program. If the PAs do not assign any costs directly to a program, then they will allocate and track them among relevant programs on an appropriate basis. The PAs assign any costs related to Evaluation and Market Research to the Hard-to-Measure line item.

Program Planning and Administration Costs

PP&A includes costs associated with developing program plans, including:

- Market transformation plans.
- Research, Development & Demonstration (“RD&D”), excluding RD&D assigned to Evaluation and Market Research.
- Day-to-day program administration, including labor, benefits, expenses, materials, and supplies.
- Overhead costs.
- Any regulatory costs associated with energy efficiency activities.
- Technology development costs, including database development and maintenance.

- Energy efficiency services contracted to non-affiliated companies (e.g., outside consultants used to prepare plans, screen programs, improve databases, and perform legal services).

This category also includes internal salaries for administrative employees/tasks, including program managers who do not have direct sales and technical assistance contact with customers.

Marketing and Advertising Costs

This category includes costs for the development and implementation of marketing strategies and costs to market, communicate, and advertise energy efficiency programs, such as radio, trade events, digital advertising, billboards, and brochures. The PAs design these marketing strategies to educate customers and trade allies regarding the existence and availability of energy efficiency programs and/or technologies, and to induce them to participate. These costs include internal salaries for employee functions related to marketing and advertising.

Program Participant Incentives

This category includes all funds paid by a PA to or on behalf of customers or trade allies as rebates or in other forms. Participant incentives include costs that directly benefit customers, and in addition to direct incentives for efficient equipment include permit fees, pre-weatherization and pre-electrification expenses, repairs, and interest buy-downs.

Sales, Technical Assistance, and Training Costs

STAT costs are enabling costs that work in concert with incentives to induce adoption of energy efficiency measures. These costs include:

- Charges from vendors that help administer the programs, such as lead vendor fees, customer support and language access services, QC costs, contractor fees, and performance bonuses.
- Payments to trade allies, such as retailers, manufacturers, distributors, and trade professionals, to encourage them to stock or install efficient equipment.
- Training costs.
- Internal salaries for employees with direct customer sales and technical assistance contact.
- Technical assistance costs and energy assessments.
- Community education support and Massachusetts Clean Energy Center assessment to fund workforce diversity efforts.

Evaluation and Market Research Costs

This category includes costs such as the AESC study, all costs associated with evaluation conducted through the Evaluation Management Committee, market research (including technical potential studies), TRM maintenance and updates, and salaries for internal evaluation staff.

Breakdown of Program Implementation Budget by Cost Category

Historically, the majority of costs associated with program implementation are related to incentives passed on directly to customers to help them overcome financial barriers to adopt energy efficiency measures. This remains the case for the 2025-2027 term. Participant incentives help customers adopt high efficiency measures and are a primary driver of historic and continuing energy savings.

The second largest budget allocation is for the STAT cost category, supporting the activities of the PAs, vendors, contractors, and other industry professionals. These investments are major contributors to the green economy in the Commonwealth. The PAs allocate the remaining program implementation budgets across the three cost categories of Evaluation and Market Research, Marketing and Advertising, and PP&A.

Salaries

Consistent with Department precedent, all the PAs have developed allocation methods based upon cost causation principles to assign expenses to the appropriate budget category. For PA staff performing multiple functions, the Program Administrators allocate employee salaries across the appropriate budget categories based on the percentage of employee time spent on various functions within energy efficiency. The PAs treat salaries as follows: (1) assign salaries of staff performing a single function to the appropriate cost category in the appropriate program/sector, and (2) assign salaries of staff performing multiple functions to multiple cost categories across several programs and sectors, as appropriate, based on an allocation for each employee in accordance with assigned job tasks. For the salaries of program managers with direct sales and technical assistance customer contact, the PAs allocate them to STAT, while allocating the salaries of program managers without direct contact to PP&A or other appropriate cost categories.

Allocation Of Overhead Costs

Consistent with past practice, the PAs allocate certain non-program specific costs to each relevant core initiative or sector. For many of the costs in the PP&A budget category, the PAs allocate them across core initiatives. This includes costs such as overhead services and fees related to building maintenance, technology and software, finances, telephones, legal counsel, and other vendors. These costs are allocated to all core initiatives in all

relevant sectors. The PAs allocate these costs to non-hard-to-measure programs based on the core initiative's percentage of total planned costs. The PAs develop the allocation percentages based on planning assumptions and maintain those percentages for reporting purposes.

Vendor Cost Categories

The PAs also collaborate to use consistent vendor cost categories and consistently review new costs to determine the appropriate category. The PAs maintain a chart, showing vendor cost types and the related cost category to support consistency and serve as a guide. This list has remained consistent since the 2022-2024 Plan.

Sponsorships & Subscriptions Costs

Sponsorships and subscriptions support the energy efficiency market, encourage workforce education, attract skilled employees to Massachusetts, and promote innovation in both service delivery and the development and testing of energy-efficient technologies. Consistent with Department directives, the PAs developed a methodology for assigning costs related to sponsorships and subscriptions.

For expenses paid to directly support a program, the PAs allocate costs to the appropriate programs or initiatives where they expect the benefits to be realized. For sponsorship and subscription costs not linked to specific in-the-field measures or services, the PAs allocate them to the Sponsorship & Subscriptions hard-to-measure line item. Even if a cost is called a "sponsorship" or "subscription," the PAs may include them in the program line items as they consider the expense to be related to program implementation. See Appendix J: Sponsorships & Subscriptions Policy for more information.

Evaluation and Market Research Costs

During the 2019-2021 term, the PAs began to charge all EM&V costs to a hard-to-measure line item in the budget called Evaluation and Market Research. Consistent with contracting EM&V vendors into research areas, the PAs allocate these costs at the sector level and not to individual programs. This budget category includes costs associated with the EM&V budget, potential studies, the AESC Study, the TRM, acquisition of data sets, and other evaluation and market research costs. The Program Administrators allocate Evaluation and Market Research costs to one or more sectors as appropriate to the cost.

Antitrust

While the PAs coordinate throughout a three-year term on issues related to costs, the three-year plans do not raise antitrust concerns or unreasonable restraint on competition. The services subsidized under the three-year plans constitute only a portion of all building construction and improvements within the Commonwealth and the

pricing for three-year plan services is not uniform and varies by PA. Antitrust laws are also not applicable to “state action” and the comprehensive statutory mandate and regulatory oversight of the three-year plans as described above clearly constitute “state action.”⁵⁷ Finally, the courts have consistently found that utilities engaging in policies that have anti-competitive impact were immune under antitrust laws, to the extent that they were promoting a state policy promoting energy conservation,⁵⁸ which is the case with this Plan and all three-year plans.

2.2.6 Performance Incentives⁵⁹

Summary of Relevant Precedent and Guidelines

Pursuant to the GCA, the three-year plan must include a proposed mechanism designed to provide an incentive to distribution companies to meet or exceed certain performance goals. The Department has established Guidelines outlining the principles and requirements for the design of a performance incentive mechanism.⁶⁰ Pursuant to the Guidelines, an incentive mechanism must be:

- Designed to encourage PAs to pursue all available cost-effective energy efficiency.
- Designed to encourage efficiency programs that will best achieve the Commonwealth’s energy goals.
- Based on clearly defined goals and activities that are sufficiently monitored, quantified, and verified after the fact.
- Available only for activities in which the PA plays a distinct and clear role in bringing about the desired outcome.
- As consistent as possible across all electric and gas PAs.
- Avoid any perverse incentives.⁶¹

Further, the Guidelines specify that the amount of funds available for performance incentives should be kept as low as possible to minimize the costs to electric and gas customers, while still providing appropriate incentives for

⁵⁷ *Parker v. Brown*, 317 U.S. 341 (1943).

⁵⁸ *Yeager’s Fuel v. Pennsylvania Power & Light*, 22 F.3d 1260 (3rd Cir. 1994); *Transphase Systems v. Southern California Edison*, 839 F. Supp. 711 (C.D. Cal. 1993).

⁵⁹ As a public entity and municipal aggregator, the Compact does not participate in performance incentives. Accordingly, any reference to or discussion of performance incentives in this Plan does not pertain to the Compact. G.L. c. 25 § B.2.v. See D.P.U. 08-50-A at 51.

⁶⁰ Guidelines § 3.6.2.

⁶¹ Guidelines § 3.6.2.

the PAs.⁶² All PAs must calculate design level incentive payments based on projections of performance over the entire three-year term, not based on annual projections.⁶³ Both electric and gas distribution company PAs collect performance incentives through the Energy Efficiency Surcharge (“EES”) at the design level during the three-year term.⁶⁴ The Department reviews each PA’s performance based over the entire three-year term and approves final performance incentives through the term report proceeding.⁶⁵ Each PA reconciles actual and design performance incentive payments at the end of each term as part of their respective EES filings.⁶⁶

The Department has approved performance incentive mechanisms that include savings and value components based on benefits and net benefits.⁶⁷ Specifically, the DPU has found that uniform statewide payout rates for the savings and value components are consistent with the goals of the GCA and Department precedent, and because the payout rates do not vary within the term, determined that they were consistent with the D.P.U. 11-120-A, Phase II Order.

The Department requires that a proposed performance incentive mechanism encourage the PAs to achieve savings wherever they exist to reach portfolio goals.⁶⁸ The Department has also approved performance incentive mechanisms that are designed to provide enhanced incentives where the PAs successfully deliver benefits to customers by overcoming barriers associated with customer groups that have had low participation rates in the past, or nascent markets, such as ADR and electrification.⁶⁹ To avoid double counting of benefits in this type of performance incentive model, the PAs must appropriately track and consistently allocate all savings associated with the targeted measures.⁷⁰

Also, in D.P.U. 13-67, the Department determined that it was no longer appropriate under the GCA to have an incentive model that included performance metrics designed to reward PAs to undertake specific actions or meet specific goals. This is because to satisfy the GCA’s mandates, the PAs are already obligated to undertake performance metric-driven activities to satisfy the GCA’s mandates.⁷¹ Further, the Department found that tracking and verifying performance of these metrics would divert regulatory, PA, and stakeholder focus from the

⁶² Guidelines §§ 3.6.2, 3.6.3.

⁶³ See Guidelines § 3.6.4; D.P.U. 11-120-A, Phase II at 7-8. Design level performance is defined as 100 percent of each PA’s projected benefits and net benefits multiplied by the appropriate payout rate.

⁶⁴ See D.P.U. 11-120-A, Phase II at 13 n.16.

⁶⁵ See D.P.U. 11-120-A, Phase II at 13.

⁶⁶ See Guidelines § 3.6.4.2.

⁶⁷ See 2016-2018 Three-Year Plans Order at 67.

⁶⁸ See 2016-2018 Three-Year Plans Order at 69.

⁶⁹ See 2019-2021 Three-Year Plans Order at 96.

⁷⁰ See 2019-2021 Three-Year Plans Order at 96.

⁷¹ See D.P.U. 13-67, at 14-15.

successful implementation of the three-year plans, which is inconsistent with the Department’s obligation to fulfill its oversight responsibilities in an administratively efficient and effective manner.⁷²

The Department affirmed these findings from D.P.U. 13-67 in the 2019-2021 Three-Year Plans Order.⁷³ In that Order, the Department rejected a proposed renter component that would have awarded the electric and gas PAs with \$20 for each renter served, in addition to the performance incentive earned in connection with the benefits attributed to the measures implemented for these same renters.⁷⁴ The Department found that the renter component incentivized the PAs to undertake activities (*i.e.*, serving renters) that they were already obligated to undertake under the GCA.⁷⁵ The Department also rejected the renter component because it would lead to the PAs achieving an incentive in multiple incentive components for a single action.⁷⁶ Finally, the Department rejected the renter component because it would allow the PAs to potentially collect performance incentives for activities that failed to achieve the special renter component threshold, as the PAs would still be eligible to collect performance incentives based on the measures installed for each renter regardless of whether they succeeded in serving a specified number of renters, thus “rendering the renter component threshold superfluous.”⁷⁷

Proposed Performance Incentive Mechanism

For the 2025-2027 term, the Program Administrators worked with DOER, the AGO, and the EEAC and AGO Consultants extensively on structuring a performance incentive approach that is consistent with Department precedent and responsive to stakeholder goals for the 2025-2027 term, including a focus on achieving equitable outcomes for customers. The PAs have provided a summary of the performance incentive approach in Figure 19 below. The proposed structure of the performance incentive mechanism for 2025-2027 is like the one in place for the 2022-2024 term, but with a greater emphasis on equity, and requirements for earning incentives beyond the design level.

There are three components—equity, standard, and value. The equity component is comprised of benefits resulting from measures delivered to these customer segments: (a) low- and moderate-income customers, (b) customers served through the Small Business Turnkey Retrofit Core Initiative, and (c) renters, including those

⁷² See D.P.U. 13-67, at 13.

⁷³ See D.P.U. 13-67, at 93-95.

⁷⁴ See 2019-2021 Three-Year Plans Order, at 92-93.

⁷⁵ *Ibid.* at 94, citing G.L. c. 25, § 21(a); D.P.U. 13-67, at 12.

⁷⁶ *Ibid.* at 93.

⁷⁷ *Ibid.* at 94.

participating in the C&I multifamily core initiative.⁷⁸ The standard component includes all benefits not included in the equity component. Finally, as directed by the Department, the PAs continue to calculate the value component using net benefits, as the total portfolio benefits less total program costs. For the calculation of net benefits, the PAs exclude non-controllable assessments, costs the PAs are obligated to pay, and costs not directly resulting in energy or GHG savings.⁷⁹

The amount of funding budgeted for performance incentives statewide is \$190 million, divided among the three components accordingly: 50 percent for the equity component, 30 percent for the standard component, and 20 percent for the value component,⁸⁰ each with a specific payout rate based on the statewide total benefits for each component. Each component has an associated benefits threshold that each PA will need to achieve before beginning to earn incentives. The PAs calculate the thresholds as a percentage of benefits planned for each component. For example, the threshold for the equity benefits component is 65 percent. If a PA's Plan includes \$20 million in equity benefits,⁸¹ then to begin earning incentives in the equity component, they must attain 65 percent of \$20 million in benefits, or \$13 million over the term. The threshold for the value component is 75 percent and for the standard component is 60 percent.

The threshold for earning in the standard component, however, is based on the entire portfolio of benefits, not just the non-equity benefits within the standard component. For the payout rate and incentives earned, however, the PAs will only apply non-equity benefits so that the PA earns incentives on equity benefits only once. This, again, emphasizes the importance of equity within both the Plan and the proposed performance incentive mechanism. Including equity benefits in the standard component threshold ensures that the PAs continue pursuing equity benefits even if delivery of non-equity benefits is below what was planned. Because all benefits contribute to the total, achieving equity benefits will never be a lower priority than meeting non-equity benefits.

Unless they attain certain goals related to a component, the PA can only earn the design-level performance incentive for each component. Once a PA attains these goals, they can earn more than the design-level performance incentive, as long as the delivered benefits surpass their planned amount. For example, using the

⁷⁸ While the PAs will still provide incentives for fossil fuel equipment in a few limited circumstances within the Low-Income sector, those measures will not be included in equity PI, instead appearing in the standard component.

⁷⁹ The costs line items the Program Administrators plan to remove from the net benefits calculation are the DOER Assessments, DOER/AGO Outside Consultants, and MassCEC's Workforce Development costs.

⁸⁰ Each of these component amounts is referred to as the PAs' "design-level PI" for that component.

⁸¹ Under this scenario, the PAs' planned \$20 million in benefits within the equity component is referred to as the "design level benefits" for the equity component.

scenario above with design level benefits for the equity component of \$20 million, that PA can only earn more than design level performance incentive for equity if it has both exceeded the \$20 million in benefits (100 percent of design level benefits) and met the specific goals related to the equity component.

For the equity component, there are two goals that the PA needs to attain to earn more than 100 percent of design level performance incentive, in addition to achieving greater than 100 percent of planned equity benefits. The first goal is the planned number of low- and moderate-income housing units that receive heat pumps, while the second goal is the planned benefits from measures delivered to renters. For the standard component, the goals each PA needs to achieve to earn more than 100 percent of planned performance incentive (in addition to achieving greater than 100 percent of planned portfolio benefits) are: (1) achievement of the PA's planned C&I benefits other than benefits from Small Business Turnkey Retrofit initiative; and (2) achievement of the PA's planned Small Business Turnkey Retrofit initiative benefits. For the value component, to earn more than 100 percent of planned performance incentive (in addition to achieving greater than 100 percent of net benefits), each PA needs to achieve a ratio of total non-incentive portfolio spending (excluding assessments) to total planned portfolio benefits that is equal to or less than what the PA included in their Plan.

The PAs plan to track equity benefits in the benefit cost model by allocating all benefits related to low- and moderate-income customers, Small Business Turnkey Retrofit, and renters (including renters in C&I Multifamily) in a separate column to make benefit tracking clear to the Department and stakeholders.

Figure 19: Summary of the Performance Incentive Approach for the 2025-2027 Plan

Component	Measures	% of \$190,000 Total Pool Amount	Threshold %	Locks to Exceed 100% of Design Performance Incentive (125% cap)
Equity	Low- and Moderate-Income, Renters (including C&I Multifamily renters), C&I Turnkey, no fossil fuels	50%	65%	- Low- and moderate-income heat pumps - Renter benefits
Standard	Non-equity	30%	60% Portfolio-based	- Total (non-turnkey) C&I benefits - C&I turnkey benefits

Component	Measures	% of \$190,000 Total Pool Amount	Threshold %	Locks to Exceed 100% of Design Performance Incentive (125% cap)
Value	Normal value component, excluding non-controllable assessment	20%	75%	Total non-incentive spend (excluding assessments) / Total benefits

2.2.7 Cost Recovery, Funding Sources, and Bill Impacts

Cost Recovery

Cost recovery is a critical element of the three-year plans. Cost recovery associated with the implementation of energy efficiency programs includes the recovery of a performance incentive.⁸² For the Program Administrators to pursue the aggressive goals set forth in this Plan, it is essential that the Department provide a full and fair opportunity for the PAs to be made economically whole for aggressively pursuing sales-reducing energy efficiency and demand reduction efforts and to earn a reasonable return on this investment based on their performance and achievement in driving electrification and ensuring that all Massachusetts residents and businesses are able to access and benefit from the programs. Although Department approval of the proposed Plan should ensure cost recovery of reasonable Plan-related costs, and performance incentives, if applicable, the DPU will address the details related to individual PA cost-recovery mechanisms in separate Department proceedings.

Pursuant to the GCA, after reviewing a PA's proposed three-year plan, the Department must approve fully reconciling funding mechanisms, in addition to other statutorily specified sources, only if the DPU determines that the PAs structured the three-year plan to attain the GHG Goal and that the PAs have identified and will capture all efficiency and demand reduction resources that are cost effective or less expensive than supply.⁸³

⁸² For a discussion of performance incentives, please see supra-Section IV.F. Note: The Compact does not receive a performance incentive.

⁸³ G.L. c. 25, §§ 19, 21(d)(2).

Funding Sources

Introduction

The PAs seek to leverage available funding sources and financing initiatives to increase the benefits of three-year plans and minimize customer bill impacts. For electric PAs, the GCA identifies four specific funding sources for energy efficiency programs:

- (1) Revenues collected from customers through the System Benefit Charge (“SBC”),
- (2) Proceeds from the PAs’ participation in the Forward Capacity Market (“FCM”),
- (3) Proceeds from cap-and-trade pollution control programs, including but not limited to the Regional Greenhouse Gas Initiative (“RGGI”), and
- (4) Other funding as approved by the Department, including revenues to be recovered from customers through a fully reconciling funding mechanism (i.e., an EES).⁸⁴

According to the Department’s Guidelines, the PAs are to allocate SBC, FCM, and RGGI revenues to each customer sector in proportion to the kilowatt-hour (“kWh”) consumption of each class.⁸⁵ For the 2025-2027 term, however, the PAs are proposing to allocate RGGI funds in proportion to each sector’s GHG emissions reduction goals to help mitigate bill impacts for the segments with the larger Plan goals. In approving other funding for electric PAs, the Department must consider: (1) the availability of other private or public funds, (2) whether past programs have lowered the cost of electricity to customers, and (3) the effect of any rate increases on customers.⁸⁶ The Department has determined that a bill impact analysis with a short-term perspective that isolates the effect of a proposed change in the EES is appropriate because it provides an accurate and understandable assessment of the impact that customers will experience on their bills.⁸⁷

For gas PAs, the GCA does not identify multiple funding sources for energy efficiency programs and instead requires them to include a fully reconciling funding mechanism to collect energy efficiency program costs from

⁸⁴ G.L. c. 25, §§ 19(a); 21(b)(2)(vii).

⁸⁵ The Low-Income sector is allocated at least 10 percent of the funds for electric energy efficiency programs and 20 percent of the funds for natural gas energy efficiency programs pursuant to G.L. c. 25, § 19(c).

⁸⁶ G.L. c. 25, § 19(a).

⁸⁷ See 2013-2015 Three-Year Plans Order at 122; D.P.U. 08-50-D at 11-12.

customers (i.e., EES).⁸⁸ In approving funding for the gas PAs, the Department must consider the effect of any rate increases on customers.⁸⁹ Below is a description of each funding source currently available to the PAs.

Non-EES Revenues

System Benefit Charge (electric only)

The SBC is calculated consistent with G.L. c. 25, § 19(a) which states: “The [D]epartment shall require a mandatory charge of 2.5 mills per kilowatt-hour for all customers, except those served by a municipal lighting plant, to fund energy efficiency programs including, but not limited to, demand side management programs.” Specifically, each electric PA calculates projected SBC revenues as the product of the statutorily mandated SBC of \$0.0025 per kWh and projected sales for the applicable year.

Forward Capacity Market (electric only)

Pursuant to G.L. c. 25, § 19(a), the three-year plans of the electric PAs shall be funded in part by “amounts generated by the distribution companies and municipal aggregators under the FCM program administered by ISO-NE.”⁹⁰ Specifically, each PA calculates projected FCM revenues as the product of the clearing prices of the FCM in the applicable year and the energy efficiency capacity that is designated by ISO-NE as an FCM capacity resource for the year. The PAs propose to apply all net proceeds relating to passive demand resources from the FCM to energy efficiency programs.

To minimize customer funding for energy efficiency efforts, each electric PA seeks to maximize FCM revenues for its customers. The PAs design their FCM bidding strategies to strike an appropriate balance between maximizing revenues through participation in the FCM and avoiding the risks associated with FCM penalties for failure to deliver their capacity supply obligations. In addition, demand reduction resources must participate in the energy market if the resource has a capacity supply obligation in the FCM, which adds potential for additional revenues but carries the risk of penalties. Each PA employs its own individual strategy in bidding future capacity into the FCM.

The Department has recognized the challenges the PAs face in projecting with precision over the term of a three-year plan, the level of planned energy efficiency resources that will be installed before and during each FCM

⁸⁸ See G.L. c. 25, § 21(b)(2)(vii); see also G.L. c. 25, § 21(d)(2).

⁸⁹ See Guidelines § 3.2.2.2.

⁹⁰ See G.L. c. 25, § 19(a) as defined in section 1 of chapter 164.

commitment period.⁹¹ One of these challenges is driven by the timing of the FCM auction cycles, which are conducted three years ahead and begin with a “show-of-interest” submission almost four years before the capacity commitment period.⁹² Another is that there are financial penalties for failing to deliver on FCM supply obligations. However, each PA takes all reasonable steps to maximize FCM revenues during the term.

In developing a bid, each PA uses the best information available at the time and considers historic achieved annual peak period MW reductions from their energy efficiency programs, as well as ongoing studies and evaluations that may affect future savings potential. Given the uncertainty in estimating the actual energy efficiency savings that will be eligible for FCM resources, PAs conservatively balance maximizing revenue with minimizing the risk of performance penalties. Notably, there are some measures that PAs cannot bid into auctions, including behavioral measures and measures that increase peak demand, like electrification measures.

Regional Greenhouse Gas Initiative (electric only)

Pursuant to G.L. c. 25, § 19(a), the three-year plans of the electric PAs shall be funded in part by “not less than 80 percent of amounts generated by the CO₂ allowance trading mechanism established under the RGGI Memorandum of Understanding, as defined in subsection (a) of section 22 of chapter 21A, and the NOx Allowance Trading Program.” Pursuant to G.L. c. 21A, §22(c)(1), DOER is responsible for distributing proceeds from the auction of CO₂ allowances under RGGI to specific statutory purposes. However, from 2019 to 2023, the Massachusetts Legislature changed the allocation of RGGI funds under G.L. c. 21A, §22(c)(1), through several amendments to the state budget to prioritize payments to the MOR-EV and Green Communities programs.⁹³ Due to the uncertainty of forecasting quarterly auction proceeds and the specific annual allocations to other programs, DOER delayed payment of proceeds to the PAs. In 2023, DOER identified outstanding funds for Fiscal Years 2021 to 2023 and disbursed them to the PAs. DOER expects that future RGGI funding will be consistent with 2023 amounts.

⁹¹ See 2013-2015 Order, at 119.

⁹² The Forward Capacity Auction originally scheduled for February 2025, for capacity delivery in July 2028, has been postponed by a year to allow ISO-NE to complete an assessment of capacity accreditation changes that will help ensure the region has sufficient energy supplies.

⁹³ See St. 2019, c. 142, § 95; St. 2021, c. 102, § 56; St. 2022, c. 126, § 123.

EES Revenues

The EES is a fully reconciling funding mechanism⁹⁴ that the Department approves for funding the three-year plans.⁹⁵ On an annual basis, each PA submits an updated EES for Department review, based on: (1) the PAs' most recent projections of budgets, revenues for non-EES funding sources (for electric PAs), and sales for the current year, and (2) a reconciliation of any under- or over-recovery of costs from the previous year.⁹⁶ Electric PAs collect the EES through EERF tariffs.⁹⁷ For gas PAs, the EES is collected through the LDAC tariff in accordance with established Department practice.⁹⁸ The EERF and LDAC filings of the PAs are separate proceedings from the three-year plan proceeding and are implemented on schedules that vary among the PAs.⁹⁹

Carryover information

In determining its EES, an electric PA considers carryover funds. If the funding for a customer sector from SBC, FCM, RGGI, and other non-EES sources exceeds the customer sector's budget, the electric PA must carry over any excess funding to the customer sector's budget for the subsequent year. For the 2025-2027 term, the electric PAs have C&I carryover funds. Each PA may have an over- or under-collection from their respective EES, and these are reflected in the electric PA-specific funding tables in each PA-specific Exhibit.

Other Funding Sources

The PAs are consistently pursuing potential sources of significant, non-customer funds. The 2025-2027 Plan currently assumes \$71.8 million in outside funding for Home Electrification Appliance Rebates ("HEAR Funds")¹⁰⁰ and additional resources provided to low- and moderate-income customers associated with GRIP (Grid Resilience and Innovation Partnerships) funding awarded to Generac and to low-income customers associated with Weatherization Assistance Program ("WAP") and Heating System Repair and Replacement Program

⁹⁴ The PAs collect funds related to RCS through their EES. 220 C.M.R. § 7.00 et seq. The Department reviews the reconciliation of any over and under collections of RCS funds in the LDAC filings for the natural gas PAs and in the Energy Efficiency Reconciliation Factor ("EERF") tariff filings for the electric PAs.

⁹⁵ See G.L. c. 25, § 21(d)(2).

⁹⁶ See 2016-2018 Three-Year Plans Order at 114.

⁹⁷ See Guidelines §§ 2(9), 3.2.1.6.

⁹⁸ See Guidelines §§ 2(9), 3.2.2.

⁹⁹ With the exception of the Compact, EERF filings are made coincident with each electric PAs' residential basic service rate change, creating a lag between energy efficiency program spending and collection. The Compact's rates are effective January 1 of each year, consistent with the 2013--2015 Order at 125, n.106. The natural gas PAs' LDAC filings are approved for effect November 1 each year. Due to the timing of these filings, the budget and revenue projections are based on the 12-month period starting on the effective date of each EES, rather than on a calendar year. Therefore, projected expenditures and revenues included in the respective EERF and LDAC filings will differ from the amounts included in the 2025-2027 Plan.

¹⁰⁰ The federal IRA provides the funding for the DOE HEAR.

(“HEARTWAP”) funding awarded to CAP agencies.¹⁰¹ The Program Administrators are also exploring the potential to secure revenue from minting Clean Peak Energy Certificates associated with dispatching residential devices participating in ConnectedSolutions.

Achieving the state’s ambitious GHG goals is infeasible using customer funds alone. First, achieving the Plan’s electrification goals increasingly will require investment in more expensive measures and mitigation of pre-weatherization¹⁰² and pre-electrification barriers, such as knob and tube remediation, building electrical upgrades, and costs associated with large building electrification efforts. Moreover, raising more funds for energy efficiency and electrification measures by increasing the EES would have the perverse effect of increasing the cost of electricity, which is a deterrent to customer adoption of electrification measures. The PAs will continue to identify and pursue funding sources outside of the EES that will reduce the amount of ratepayer funding required to achieve energy efficiency savings and GHG reductions, and that will not result in increased electricity rates for consumers.¹⁰³ The PAs are working to engage both private and public funds to finance energy efficiency and electrification measures.

The PAs have had considerable success leveraging private capital to work alongside customer-funded rebates and propose to continue this approach for the 2025-2027 term. To engage the local financial community, the PAs have established valuable partnerships with local banks and credit unions throughout the Commonwealth, a collaboration responsible for the success of the HEAT Loan. HEAT Loans offer interest-free financing opportunities for residential customers to install energy efficiency and barrier mitigation measures. The PAs use program funds to buy down the interest rate on loans offered by private banks and credit unions, removing barriers to adoption, and offering considerable savings to customers, especially given recent increases in interest rates.

The PAs enhanced the HEAT Loan during the 2022-2024 term by extending its coverage to include the removal of pre-electrification barriers such as electrical panel upgrades. All told, in 2022, the PAs’ collaboration with private lenders resulted in more than \$192 million in HEAT Loans. During the 2025-2027 term, the PAs plan several refinements to the HEAT Loan terms to ensure broad availability of financing for energy efficiency and electrification upgrades while containing the costs to the program associated with the recent increase in interest rates. See section 3.4.5: HEAT Loan for further details on loan changes and section 8.2: Efforts to Reduce or

¹⁰¹ The federal BIL provides the funding for the DOE’s Grid Resilience and Innovation Partnerships Program (“GRIP”).

¹⁰² Because weatherization is recommended for all electrification and required for whole-home electrification, achieving complete electrification goals will also require addressing underlying barriers to weatherization.

¹⁰³ Outside funding received by the PAs is not included in budgets or models, but rather it reduces the amount collected from customers through the EES.

Minimize Residential Costs for details on efforts to control HEAT Loan costs, including collaboration with the Massachusetts Climate Bank and cross-promotion of the Energy Saver Loan with the intent to reduce the number of HEAT Loans financed through the Mass Save programs.

Alternative sources of public funds also can play a significant role in accelerating the deployment of energy efficiency measures while minimizing customer burdens. Recent federal legislation, including the American Rescue Plan Act (“ARPA”), the BIL, and IRA have made available billions of dollars of federal funds for investments in decarbonization. The PAs are engaged in several efforts to obtain these funds (see below).

Inflation Reduction Act rebates

Under the IRA, the US Department of Energy (“DOE”) is allocating almost \$73 million to Massachusetts for HEAR Funds to support residential electrification. As the federally designated State Energy Office, DOER is responsible for designing the Commonwealth’s program to distribute the HEAR Funds, consistent with DOE regulations. The IRA authorizes the use of HEAR Funds for low- and moderate-income customers, as defined by federal legislation, for specific electrification appliances and related efficiency upgrades. The figure below shows the maximum rebate per measure, with households eligible for maximum total rebates of \$14,000. The DOE requires 40 percent of HEAR funds in Massachusetts to be spent on customers earning up to 80 percent of AMI. Additionally, to be consistent with the Biden Administration’s Justice40 Initiative, at least 40 percent of HEAR Funds must be spent in either federally designated Justice40 communities or select communities as defined by DOER and approved by DOE.¹⁰⁴

The PAs have worked closely with DOER as it has prepared an application for HEAR Funds that builds on and works seamlessly with Mass Save programs. The PAs will be subrecipients of approximately \$71.8 million of HEAR funds and responsible for overseeing implementation of these funds in their territories. Based on the requirements for HEAR funds and the offers proposed for the 2025-2027 term, the PAs anticipate deploying these funds to support barrier mitigation and electrification for low- and moderate-income customers, including those who rent. The HEAR Funds would supplement Mass Save program dollars to low- and moderate-income customers for measures such as electrical panel and wiring upgrades and electrification of space heating and potentially water heating.

The PAs will integrate this funding with the offers proposed for these customer groups and delivered via the existing turnkey delivery pathways for these customers. The PAs, DOER, CAP partners, and vendors will handle all

¹⁰⁴ See [Justice40 Initiative](#).

associated reporting and requirements, with no impact on customers. DOER has also received approval from DOE to use the designated equity communities to meet Justice40 spending requirements and therefore the PAs and their CAP partners are aiming to spend at least 40 percent of HEAR funds in these communities. For further details on the criteria for selection of these designated equity communities, please refer to the Strategic Enhancements portion of section 3.1.2: Residential Turnkey Solutions.

Federal HEAR funds will support total additional spending on low- and moderate-income customers, while reducing the portion of these costs borne by customers. The PAs are grateful to DOER for their support and collaboration in helping to increase support for these customers.

Bipartisan Infrastructure Law and Inflation Reduction Act Program Funding

The BIL and IRA created or expanded dozens of grant programs aimed at improving energy infrastructure and reducing GHG emissions, several of which relate to energy efficiency, building electrification, and decarbonization. For most of these programs, the PAs are not eligible to act as the primary applicant and grantee; however, the PAs seek out opportunities to partner with and support lead applicants. Exemplifying the potential for collaborative approaches to securing these federal funding programs, the PAs were pleased to support Generac Grid Services' successful application to DOE's GRIP program, created by the federal BIL. On October 18, 2023, DOE announced its intent to fund this proposal, which will support the deployment of some 2,000 residential batteries in Massachusetts. The PAs will pair these batteries with heat pumps and other efficiency measures funded through the Mass Save programs and will enroll the batteries in ConnectedSolutions following installation, resulting in both resiliency benefits and a substantial addition of controllable load.

Similarly, the PAs recently supported the City of Everett's application to the DOE's Buildings Upgrade Prize. The DOE awarded the city \$400,000 to work with community-based organizations to overcome linguistic and cultural barriers to electrification. The PAs guided and supported Everett in drafting and submitting its application. The PAs also continue to support applications led by state agencies. For example, the PAs submitted a letter of support in favor of DOER and the MassCEC's successful application to the EPA's Solar for All program. These funds will support rooftop and community solar installations for low- and moderate-income customers. The PAs look forward to working with DOER and the MassCEC on the Solar for All initiative and to exploring opportunities for co-delivery of solar with electrification as the program gets established.

WAP and HEARTWAP Funding

The PAs work closely with CAP agencies to deliver weatherization, heating system, and other appliance upgrades for low-income customers. Where possible, CAP agencies leverage federal funding, which is administered by EOHLC, such as WAP and HEARTWAP, to support some of these investments.

Clean Peak Standard Program Revenue

The PAs are also exploring the potential to secure revenue from the Clean Peak Standard program. The PAs are exploring opportunities to mint Clean Peak Energy Certificates (“CPECs”) associated with dispatching residential devices participating in ConnectedSolutions. The PAs would share the revenue from selling CPECs with vendors. The PAs estimate that such revenue could equal \$2.4 million over the 2025-2027 term and that they use CPECs to offset the EES while providing the same level of service. The PAs will not mint CPECs associated with dispatching commercial devices participating in ConnectedSolutions as the vast majority of these customers already have agreements with aggregators to mint CPECs on the C&I customers’ behalf.

Climate Pollution Reduction Grants

Massachusetts is part of a five-state regional coalition that the EPA selected to receive \$450 million in funding under the competitive portion of the Climate Pollution Reduction Grants (“CPRG”) to establish the New England Heat Pump Accelerator (“Accelerator”). Connecticut leads this coalition, which is comprised of Connecticut, and includes Connecticut, Maine, Massachusetts, New Hampshire, and Rhode Island. Massachusetts expects to receive approximately \$100 million from the award and the PAs look forward to working with DOER in this effort.

The Accelerator will rapidly accelerate adoption of cold-climate air-source heat pumps, heat pump water heaters, and ground source heat pumps in single-family and multifamily residential buildings across the region. It seeks to accomplish this goal by creating the first regional midstream program of its kind and engaging manufacturers, distributors, and contractors to drive the sales, stocking, and quality installation of heat pumps suited to New England’s climate and housing stock.

The Accelerator uniquely combines three program pillars to activate the supply chain: a market hub, innovation hub, and resource hub. Together these three pillars work to spur heat pump adoption, scale solutions to address specific barriers that low- and moderate-income households and underserved communities face in adopting heat pumps, and share data and educational resources to drive rapid, aligned progress across the New England region. In alignment with EPA’s Justice40 goals and the coalition must ensure they direct at least 40 percent of Accelerator funding to low- and moderate-income households and underserved communities. The PAs look

forward to working closely with DOER to ensure the Accelerator supplements the Mass Save heat pump and heat pump water programs.

DOER funding

In January 2024, DOER's Green Communities Division awarded the City of Gloucester a grant of \$144,311. This grant, approved as part of the Green Communities Competitive Grant program, will support a range of electrification and efficiency projects across various municipal buildings in Gloucester including the high school, visitor center, and fire station. These projects should result in significant energy savings, reducing the city's annual energy costs by \$17,000 and lowering GHG emissions by approximately one percent.

Bill Impacts

Consistent with directives of the GCA, the 2021 Climate Act, and the goal of the 2025-2027 Plan, the PAs have sought to develop a statewide energy efficiency and decarbonization plan that acquires these resources with the lowest reasonable customer contribution.¹⁰⁵ The Department has determined that a bill impact analysis with a short-term perspective that isolates the effect of a proposed change in the EES is appropriate because it provides an accurate and understandable assessment of the impact that customers will experience on their bills.¹⁰⁶ The Department requires the PAs to submit traditional bill impacts for nonparticipants under the following scenarios:

- The current (i.e., 2024) EES to the proposed EES for the first year of the three-year Plan (i.e., 2025).
- The EES from the first year of the three-year plan (i.e., 2025) to the proposed EES for the second year of the three-year plan (i.e., 2026).
- The EES from the second year of the three-year plan (i.e., 2026) to the proposed EES for the third year of the three-year plan (i.e., 2027).
- The current EES (i.e., 2024) to the proposed EES for the third year of the three-year plan (i.e., 2027).¹⁰⁷

The Department also directed the PAs to submit bill impacts for participants, “where consumption is reduced for three levels of savings – low, medium, and high – and [to] provide a description of how these savings levels were determined.”¹⁰⁸ The Department later clarified the bill impact requirements for nonparticipants by providing a

¹⁰⁵ See G.L. c. 25, § 21(b).

¹⁰⁶ See 2013-2015 Three-Year Plans Order at 122; D.P.U. 08-50D, at 11-12.

¹⁰⁷ See D.P.U. 08-50-D, at 12.

¹⁰⁸ Ibid.

spreadsheet to the PAs, directing them to use average monthly usage levels under the first and fourth scenarios listed above.

Accordingly, to calculate bill impacts for participants, the PAs will populate the Department’s spreadsheet (with peak and off-peak rates on separate sheets), using the average monthly kWh and/or therm usage for nonparticipants for each rate class, and the percentages set forth below. To best approximate low, medium, and high annual savings consistent with the Department’s directive in D.P.U. 08-50-D, the PAs collaborated on appropriate assumptions for the Residential, Low-Income, and C&I sector programs to develop statewide percentages that best approximate savings for those types of participants. The PAs determined that the percentages below would provide directional information on the bill impacts that a residential, low-income, or C&I participant may experience. The PAs have been using these percentages to best approximate low, medium, and high annual savings since the beginning.

The PAs determined that there is no low, medium, and/or high savings scenario for low-income participants. These participants typically receive a comprehensive “whole home” energy efficiency approach, meaning vendors install potential measures in most cases (the work that can be done is completed). Similarly, the PAs determined that there is no low, medium, and/or high savings scenario for residential and low-income natural gas non-heating participants and street lighting. Accordingly, the PAs determined that the percentages in the table below best approximate savings for those types of participants.

Figure 20: Proposed Budgets

	Low	Medium	High
Residential (electric)	2%	10%	30%
Residential (gas)	2%	15%	30%
Residential (gas non-heating)	2%		
Low-Income (gas non-heating)	2%		
Low-Income	25%		
Street Lighting	10%		
C&I (electric)	1%	10%	20%
C&I (gas)	1%	10%	20%

In October, each PA will provide a traditional bill impact analysis for all rate classes in its individual filing with the Department. Additionally, as part of the 2022-2024 Three Year Plans Order, the Department also directed the PAs to “develop a participant bill impact showing the range of potential electric bill impacts from strategic

electrification.”¹⁰⁹ Accordingly, the electric PAs developed participant bill impacts showing the range of potential electric bill impacts from electrification [based on sample full and partial displacements of pre-existing oil, propane, gas, and electric resistance heating systems and including any specific electrification rates offered by that PA].

The PAs are sensitive to the resulting bill impacts and electrification costs that will be placed on customers, which underscores the importance of identifying alternative funding sources as a means to achieving these outcomes while reducing the impacts to customers. In addition, it is important to emphasize that actual rate and bill impacts for customers associated with the 2025-2027 Plan will vary based upon a multiplicity of factors, such as the cost of service in a particular PA’s service territory, the customer’s actual individual usage, the level and quality of measure installation, and the availability of public or private funds other than those collected through the SBC for application toward energy efficiency expenditures, such as proceeds realized from the FCM or from cap-and-trade programs (i.e., RGGI). Finally, bill and rate impacts will vary from the bill and rate impacts included in each PA’s EES filings, which PAs complete on a different time schedule from this filing and include up-to-date over- and under-collections.

PA-Specific Initiatives

The PAs strive for consistency in program offerings with the goal that customers across the Commonwealth can take advantage of comprehensive energy efficiency services. However, in some instances, individual PAs may provide additional services or unique incentive structures that are specific to their territory or to a targeted community or demographic group within their community. These offerings may be specifically related to the unique characteristics or conditions of a service area or designed to advance equity goals. They may also be based on the governing structure of a PA, such as the Compact, a public entity that has a distinct role as a municipal aggregator. One Program Administrator may run a test case, with the idea that other PAs could implement the programming if proven successful and cost effective. The PA-specific initiatives are set forth in Appendix K: PA-Specific Programming and represent proposals of only the PA making the proposal.

¹⁰⁹ 2022-2024 Three-Year Plans Order at 221, n. 135.

Section 3: Statewide Programs

3.1 Residential Sector

The Residential sector programs drive efficiency and electrification improvements for new and existing homes across Massachusetts by interacting directly with individual customers and building owners. Historically, Massachusetts has been a national leader in energy efficiency with advanced program design and implementation strategies that have led to the achievement of weatherizing over 350,000 homes since 2013 and leveraging an established weatherization contractor network of about 120 installers. These initiative designs offer delivery channels for customers that are unlike other programs and offer unprecedented results. That trend continued in the first two years of the 2022-2024 term, with more than 102,000 homes weatherized.

During the 2022 and 2023 program years, the PAs made significant progress on residential electrification, supporting the installation of heat pumps in almost 50,000 homes, exceeding their residential heat pump installation goals. The Program Administrators' establishment of the Heat Pump Installer Network ("HPIN") in 2022 led to this rapid expansion and adoption of residential heat pumps. This network aims to support heat pump installers with the training, experience, and knowledge necessary to ensure properly sized and quality installations. The HPIN has now grown to include over 1,700 installers. The Residential sector programs are critical to the achievement of the Commonwealth's GHG goals and overall success. Through their residential interactions, the PAs have tens of thousands of opportunities each year to directly assist and support customers in their pursuit of energy efficiency and decarbonization.

To reach all customers, the PAs must provide services that meet their diversity of needs, based on how they wish to engage, the kind of building they live in, whether they own or rent, their household income, what languages they speak, their geographic location, and other key demographic characteristics. Ensuring access to customers with such an array of needs and preferences requires constant refinement over time. The PAs provide services that address most residential building end uses, including building envelopes, heating, ventilation, and air conditioning ("HVAC") and domestic hot water systems, small appliances and electronics, and the enrollment of connected devices in ADR offerings. To effectively address all these end uses, the PAs' solutions must be simple to access and available when customers are ready to make the decision to procure one of these services. Customers need decarbonization solutions when building a new home, making renovations or upgrades to an existing home, or purchasing a new appliance or electronic device. Addressing a wide set of end uses in different types of

interactions is part of the PAs' strategy to ensure that all types of customers can find ways to benefit from programs that suit their specific circumstances.

In the 2025-2027 term, the PAs will aim to drive greater adoption of residential decarbonization measures and simplify the customer experience through three key enhancements including: (1) the expansion of Home Energy Assessments to include decarbonization opportunities, (2) providing seamless customer experiences via turnkey delivery of barrier mitigation and heat pump installations (in addition to weatherization), and (3) a commitment to key customer segments including moderate-income customers and renters. The Program Administrators will deliver these enhancements through a suite of services that enables customers to access services and participate on their own terms.

Focus on Decarbonization

In the 2025-2027 term, the PAs are expanding their emphasis on decarbonization across the Residential sector. Within the Residential Turnkey Solutions program, the PAs plan to expand the traditional Home Energy Assessment to include decarbonization opportunities. The PAs will leverage the assessment to collect additional data points on the home to identify, recommend, and facilitate relevant decarbonization options based on the customer's opportunities and needs. The enhanced assessments will evaluate the site-specific readiness and suitability (e.g., electrical service and panel capacity, electric distribution system, house orientation, etc.) for implementation of measures such as heat pumps, electric appliances, electric vehicle ("EV") charging, and renewable energy systems. By evaluating these additional areas and collecting this data, the Home Energy Assessment will provide the information necessary to support customers with a comprehensive range of decarbonization options that match their interest and need, while remaining the primary entry point for facilitated decarbonization solutions. The PAs can assist with the connection to appropriate resources to support customers over the course of their decarbonization journeys.

For customers who may not be interested in a facilitated experience, the Residential Rebates program offers rebates for heat pumps installed through the HPIN. To further assist customers with eligibility questions, the PAs will offer customers the option to pre-approve their heat pump projects to ensure equipment qualifies for incentives prior to installation. Customers can leverage support through virtual Decarbonization Consultations. The PAs designed these consultations to help customers with all their heat pump related questions including understanding the technology, interpreting the recommended configuration, guidance on comparing quotes from different installers, or exploring other decarbonization opportunities for their home such as heat pump water heaters and ENERGY STAR radiant stoves.

To promote the electrification of new buildings in the Residential New Homes & Renovations program, the PAs will introduce a new All-Electric offer to optimize energy-efficient building practices coupled with electrification efforts. The standards for this offer will focus on advanced building shell techniques and mechanical systems to dramatically reduce heating and cooling loads and prepare these homes for carbon neutrality, while increasing occupancy comfort year-round. Through this offer, the PAs will align their incentives and provide education and training to customers and the workforce. As the program will provide all-electric solutions for new construction homes, the gas PAs will no longer administer a Residential New Homes & Renovations program.

Delivering an Improved Customer Experience

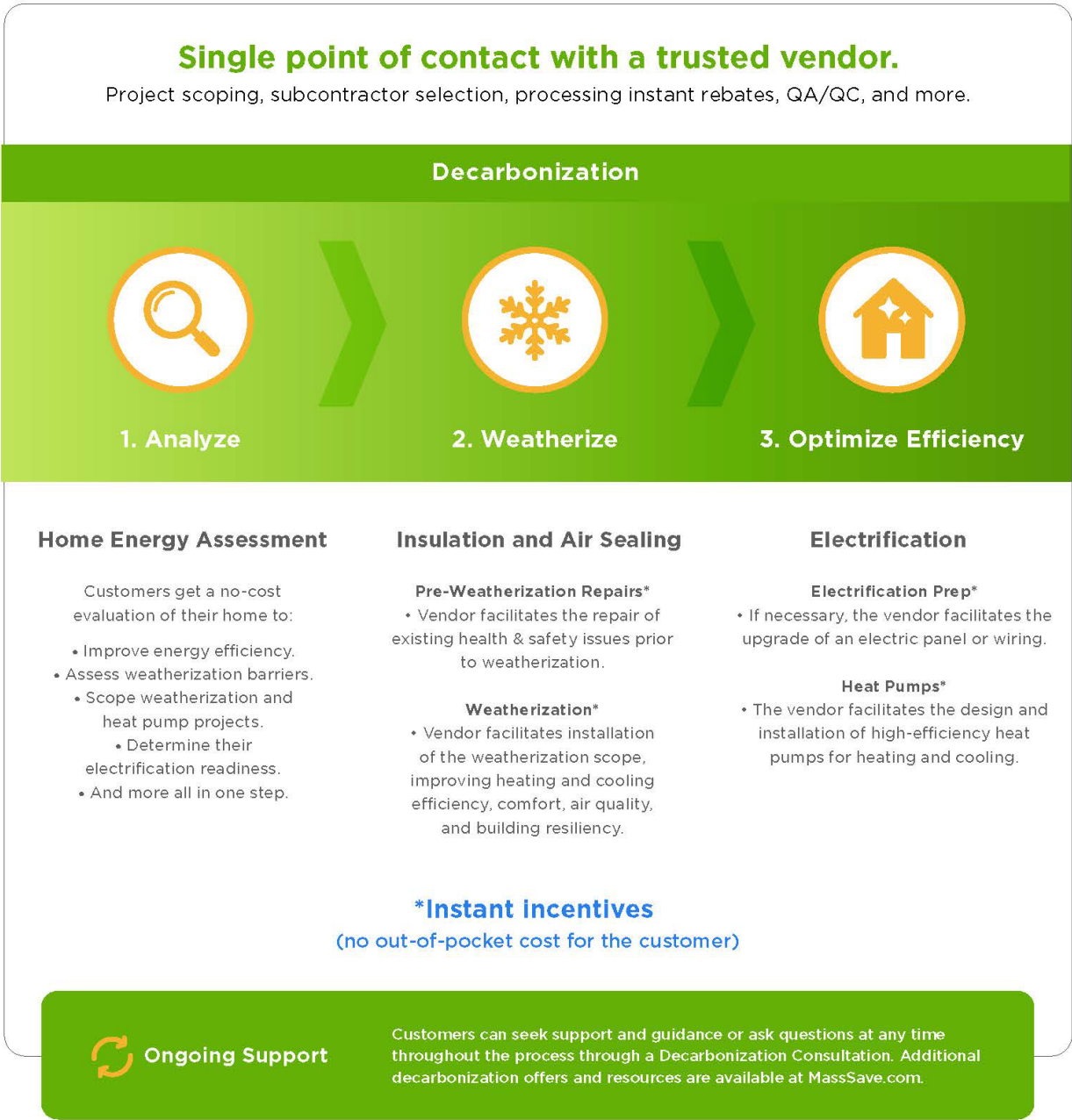
To streamline the customer experience and reduce barriers to participation, the PAs plan to expand the managed (or “turnkey”) services within the Residential Turnkey Solutions program beyond weatherization to provide barrier mitigation and heat pump installations, starting first with moderate-income homeowners and renters. The current turnkey approach provides customers with a full-service experience for their weatherization installation. A customer's experience begins with their Home Energy Assessment from a trusted vendor and proceeds to end-to-end project facilitation where work is provided to the customer at set pricing, customers receive instant incentives, and subcontractors are assigned and managed by the vendor (or can be selected by the customer). Finally, the program offers quality control inspections post-installation to ensure all materials were installed according to the work scope and up to the program's installation standards. Even after turnkey installations are complete, turnkey service vendors remain a resource for customers considering additional home improvements.

Using the weatherization model as a framework, the PAs will introduce a more comprehensive Residential Turnkey Solutions program delivery model (see Figure 21 below) to support barrier mitigation and electrification. This expanded offer will focus initially on moderate-income customers, with plans to extend the offering to market-rate customers by 2027. The PAs are offering a variety of support resources to customers to assist with their decarbonization journey, and they anticipate reducing barriers to participation by offering an end-to-end facilitation experience for customers.

Figure 21: Turnkey Solutions Delivery Model

TURNKEY SOLUTIONS

Pathways providing turnkey services are recommended for customers who are new to Mass Save programs and/or prefer a fully managed experience. These services offer end-to-end project management, quality assurance, up-front pricing, and instant incentives to guide customers and provide an easier energy efficiency and decarbonization journey. All with the help of a dedicated contact through every step of the process.



For customers who want to pursue electrification outside of the turnkey approach, the PAs will continue to offer incentives through the Residential Rebates program. Sufficient weatherization is critical to designing properly sized, high performing heat pumps and will remain a requirement for the most generous heat pump rebates and a recommendation for other heat pump rebates, in some cases offering an additional incentive. The PAs will offer two paths to weatherization for customers who prefer to choose their own decarbonization journey—through the Home Energy Assessments and turnkey weatherization model or through a Direct Weatherization contractor.

The PAs will also continue to improve the rebate experience and support timely processing of rebates. As described above, the PAs will create an optional pre-approval step for customers pursuing electrification to ensure customers understand and comply with each of the required components for successfully securing a rebate prior to submission of an application form. Additionally, the PAs will continue to work with their rebate processing vendor to further reduce the number of applications with missing information via enhancements to the online submission process and proactive outreach to affected customers. This outreach is in addition to the automated notifications customers already receive. Finally, the PAs are working to optimize and reduce the time required for inspections, while ensuring appropriate levels of post-installation review. Together, the PAs expect these efforts to improve the rebate experience while ensuring that installed heat pumps achieve the expected energy savings and GHG reductions, and they prudently deploy customer dollars.

Figure 22: Residential Customer-guided Journey

CHOOSE YOUR OWN JOURNEY

This pathway is best for customers that:

- Completed a Home Energy Assessment and/or weatherized their home.
 - Prefer to manage their own projects and shop the open market.
- May wish to coordinate projects around other home improvements.

Customers can build their own plan.

By using available tools and resources, including Mass Save rebates, instant incentives, approved contractors, services, ongoing support and more.



Ongoing Support

Customers can seek support and guidance or ask questions at any time throughout the process through a Decarbonization Consultation. Additional decarbonization offers and resources are available at [MassSave.com](https://masssave.com).

Commitment to Equitable Access

To ensure equitable delivery of Residential sector initiatives, the PAs will make several additional changes specifically designed to reduce barriers for moderate-income customers, renters, and LOTE customers and drive adoption of energy efficiency, weatherization, and electrification improvements for these customer groups. For the 2025-2027 term, the PAs will reduce the barriers to moderate-income qualification by continuing to use expanded eligibility criteria they rolled out at the end of the 2022-2024 term, including consideration of both SMI and AML, and extension of moderate-income offers to landlords whose tenants meet the income criteria. To reduce the financial burden of energy efficiency improvements and eliminate out-of-pocket costs for moderate-income customers, the PAs will provide 100 percent incentives for weatherization, barrier mitigation, and heat pumps delivered via Residential Turnkey Solutions. The PAs expect the introduction of turnkey services for barrier mitigation and heat pump installation and end-to-end project support will reduce the logistical burden and time commitment for customers. Additionally, the PAs will continue to leverage trusted local community representatives, including their Community First Partners and Community Education Grant recipients to build awareness and reach this segment in culturally relevant ways.

To further support weatherization and electrification of renter-occupied and moderate-income households, the PAs and DOER collaborated to select designated equity communities for the 2025-2027 term for targeted outreach and investment. The selected communities have a significant share of renter-occupied and low- and moderate-income households. In designated equity communities, the PAs will identify key community stakeholders and other partners to identify target buildings or neighborhoods, develop a customized outreach plan, and engage these properties through the Residential Turnkey Solutions program. Buildings with at least 50 percent renter-occupied units in designated equity communities will automatically qualify for moderate-income offers, including weatherization, pre-weatherization and pre-electrification barrier remediation, and heat pump installation, all at no cost to the customer. To mitigate the administrative burden and time commitment for landlords and their tenants, the PAs will not require income verification and will deliver qualifying projects via a turnkey approach. Under this offer, heat pumps will only be available where renter energy burden will not increase and where renters are protected from rent increase, displacement, or other burdens due to the improvements. The PAs will require landlords to sign an agreement to this effect to access this offer, as they currently require in the Low-Income sector.

The PAs will begin deploying this offer in designated equity communities in early 2025 and will expand to all designated equity communities by year end. The PAs may use designated environmental justice census blocks within these communities to focus this offer and concentrate resources. The PAs will deliver this offer via the Residential Turnkey Solutions Single-Family Pathway for single-family buildings (1-4 units) and via the Multifamily

Pathway for buildings with 5+ units. The Low-Income program will serve buildings with 50 percent or more low-income units.

Understanding that many eligible customers who prefer to be served in a language other than English, the PAs are committed to improving their ability to serve LOTE customers. During the 2022-2024 term, the PAs commissioned a language access study to better understand language needs and develop recommendations for serving LOTE customers. The PAs plan to implement the recommendations made through that research during the 2025-2027 term. See section 3.4.3: Language Access for additional information on the study's recommendations.

Figure 23: Residential Sector Overview

Core Program	Description
Residential New Homes & Renovations	This program supports the achievement of efficient, all-electric solutions in single-family and multifamily new construction and renovations markets, as well as construction practices and training to drive increased compliance with building and energy codes.
Residential Turnkey Solutions	This program (formerly known as Residential Coordinated Delivery) delivers Home Energy Assessments and turnkey weatherization, barrier mitigation, and heat pump installation services.
Residential Rebates	This program (formerly known as Residential Retail) provides customer rebates for heat pumps, heat pump water heaters, and other energy-efficient equipment. A key focus of this program is continuing to develop a trained contractor workforce for heat pump installation through the HPIN.
Residential ConnectedSolutions	This program aims to reduce system peak load by temporarily controlling behind-the-meter technologies owned by both residential and commercial customers in response to event signals from the PAs, thus reducing a customer's onsite load.
Residential Education	The Residential Education program offers educational outreach programs, encourages careers in the clean energy industry, and help increase awareness of the benefits of energy efficiency and decarbonization.

3.1.1 Residential New Homes & Renovations

The goal of the Residential New Homes & Renovations program is to encourage and support customers and their contractor teams in achieving efficient, all-electric solutions in single-family and multifamily new construction and renovations markets in a way that transforms those markets toward these solutions faster than would occur

absent program interventions. The program encourages and supports the development, adoption, and implementation of increasingly stringent codes and standards and the demonstration and normalization of all-electric construction practices and supports the training of code officials, Home Energy Rating System (“HERS”) raters, and builders to drive increased compliance with building and energy codes. In the 2025-2027 term, to continue to advance all-electric building practices in new construction and renovation projects, the PAs will transition the evaluation framework of the program to a market transformation approach showing support for recent legislation and policy developments in Massachusetts. Please see Appendix X: Market Transformation Program Theories and Logic Models for draft descriptions of the New Construction market transformation initiatives and the Renovations and Additions Process and Program Theory and Logic Model.

Program Design

The Residential New Homes offer is open to customers building a new residential home, including manufactured and modular homes, located in an electric PA service territory.¹¹⁰ Residential multifamily buildings can be either individually metered or master metered. The program has two primary pathways: (1) Single Family (1-4 units), and (2) Multifamily/High-Rise (5+ units). High-rise master metered projects are applicable to buildings with four or more stories or a centralized HVAC system. These two pathways provide tailored technical support, outreach, recruitment, training, verification, and incentive structures to encourage and support program participation from all residential new construction and renovation projects. Each pathway includes a standard offering coupled with two enhanced initiatives focused on advanced building practices and higher levels of electrification.

For the Single-Family pathway (1-4 units), the PAs will continue working with the HERS rater infrastructure. HERS raters are the main contact point for all participants in these pathways and play a critical role in recruiting builders to enroll projects and in advising participants on the value of additional efficiency upgrades. Due to the importance HERS raters play in the program, the PAs, through their lead vendor, who manages customer and client relations and oversees enrolled projects, have worked to grow the community. The PAs acknowledge the findings in the Residential New Construction Electrification Barriers Study Report (MA21R44) and are looking to expand and continue to collaborate with local agencies, offer training, perform outreach, and offer HERS rater incentives to continue to educate stakeholders of the advantages of working with the program. Due to these efforts, the PAs continue to see the number of HERS rating companies in Massachusetts grow year after year.

¹¹⁰ Customers who are served by municipal electric utilities will not be eligible for the Residential New Homes offer.

HERS raters can directly enroll projects into the program via an online intake tool and provide verification of savings at project completion.

In the Multifamily/High-Rise pathway (5+ units), the Program Administrators use a statewide, competitively procured PA-contracted vendor (lead vendor), who works directly with developers and trade allies to enroll projects in the program. The lead vendor supports the entire Residential New Homes & Renovations program portfolio across all PAs. The High-Performance Housing Working Group includes residential and commercial new construction technical experts from PA staff and the lead vendor. This working group assists in recruiting and defining performance targets while providing guidance on maximizing incentives, energy-efficient net zero construction practices, and high efficiency technologies and systems.

The Renovations and Additions offer provides customers with all the technical support for the Residential New Homes & Renovations program, including training and education for builders and connecting builders to HERS raters. This support enables customers to leverage the most advanced building science and efficiency technologies and push for the highest efficiency in both the existing and renovated portions of their projects. For this offer, customers have the opportunity, while their builder and rater support are in place, to add building envelope, mechanical systems, appliances, HVAC systems, and other energy-efficient measures to their project, securing the maximum energy savings presented by the renovation opportunity. The savings are modeled, and incentives reward participants for each unit of energy savings secured.

Within each pathway, the Passive House and ENERGY STAR offerings provide builders and owners options to achieve the highest building performance standard for any new residential construction project. To ensure early intervention and guarantee more design teams and owners are ready to make a commitment to Passive House projects (including single-family projects pursuing the standard All-Electric offering outlined below), the PAs will continue to offer subsidized trainings and certifications to develop the expertise needed to achieve certified buildings. In addition, the PAs will continue to provide outreach and education to other project stakeholders, such as architects and lenders, and provide hands-on building science technical trainings to installation contractors to ensure that all involved in the project have the information and skills necessary to achieve certification.

Also included within the Residential New Homes & Renovations program is the Codes and Standards Compliance and Technical Support initiative. This initiative includes education and outreach to the building industry to improve compliance with the current energy code and provide technical support to enable codes and standards to continue to improve and become more efficient. This initiative accelerates the adoption of more efficient codes and standards.

The program underwent a complete redesign that went into effect on July 1, 2024, to more clearly promote the use of highly efficient construction coupled with electrification building techniques. All buildings participating in the program must electrify all major end uses with an exception for multifamily hot water heating. The redesigned program enables projects to achieve high levels of electrification, coupled with efficiency. As the market adjusts to all-electric construction, these practices will be adopted in the base energy code. The PAs used the Residential New Construction Electrification Barriers Study Report (MA21R44) to inform the design of these new offerings.¹¹¹

As builders and homeowners have become accustomed to and relied on the use of fossil fuels for their homes, the program's shift toward all-electric construction will pose two major challenges—cost and education. Cost refers to both the upfront cost of equipment and the ongoing operating costs of all-electric heating and water heating. The need for education is applicable to all segments of residential projects and varies by audience. While homeowners may need to understand the overall benefits of the technology, the workforce of builders, raters, designers, and code officials will need to understand the technical aspects of designing new equipment and achieving performance metrics.

The PAs employ a variety of marketing techniques to drive participation across offerings. A key component of low-rise marketing and customer acquisition are the HERS raters, who receive a referral fee for every project that successfully participates in the program. The PAs hold meetings every quarter with HERS raters from around the state to receive continuous updates on the program's progress, to communicate any programmatic changes, and to receive feedback. To acquire customers for the Multifamily/High-Rise pathway, the PAs employ an outreach and engagement strategy to reach design and construction companies across the state to educate them on the benefits of participation.

As part of this outreach, the PAs' lead vendor includes a strategy to expand the number of developers, builders, and project teams who are aware of and participating in the Residential New Homes & Renovations program.¹¹² Beyond traditional marketing and outreach for the Multifamily/High-Rise pathway, the PAs organize specially tailored marketing and outreach for the Passive House offering. The PAs hold Passive House 101 lunch-and-learn trainings multiple times a month, in both onsite and virtual formats, to educate the market about Passive House design and the offering. The PAs offer these lunch-and-learns to architectural firms, builders, engineering firms,

¹¹¹ MA21R44, Residential New Construction Electrification Barriers Study Report.

¹¹² A lead implementation vendor is responsible for working with the PAs on the strategic coordination, outreach, development, and deployment of program-related messaging and services. The lead implementation vendor works directly with trade allies, builders, developers, architects, project teams, and other key industry stakeholders to help provide input on innovative new program design opportunities, which they then relay to the PAs who determine how to best implement new strategies and program.

and other interested stakeholders. Throughout the year, the PAs and their marketing vendor will also employ comprehensive digital marketing campaigns. Digital marketing in social media and through paid search is particularly beneficial for acquiring customers in the Renovations and Additions offer. The PAs also use historical and current permit data for geographic targeting, annual recruitment, and engagement of design and construction companies across the state.

The PAs will align their incentives to promote electrification, while providing education and training to customers and the workforce. Continuous education of the workforce is critical to the successful promotion of all-electric construction. The PAs will build trust in new technologies by providing training material including case studies of successful projects grounded in sound building science and will leverage their relationship with the HERS rater community to further advance education efforts and identify workforce challenges. As cost remains a barrier to electrification, the PAs will continue to provide incentives to drive the market toward electrification through the program pathways. The PAs will couple these with adders that provide additional incentives for certain technologies to drive participation in all-electric construction.

Strategic Enhancements

Enhancement #1: Introduce a standard All-Electric offering

For the 2025-2027 term, the PAs will introduce a standard All-Electric offer. This offer will optimize energy-efficient building practices coupled with electrification efforts and offer an easy-to-follow check list of advanced construction standards for smaller building projects. The standards will focus on advanced building shell techniques and mechanical systems to dramatically reduce heating and cooling loads and prepare these homes for carbon neutrality, while increasing occupancy comfort year-round, similar to other high-performance building standards, such as Passive House. The standard All-Electric offer has moved away from a pay-for-savings (“PFS”) approach based on market research, instead it offers a set incentive once a project meets certain performance standards. This takes any guesswork out of the program and clearly defines incentives. Under the PFS approach, the average incentive in the base offering was lower than the proposed \$7,500 for a single-family project. By realigning the program to promote electrification, the PAs were able to propose a \$7,500 incentive that aligns with the benefits of the program.

Participation in the All-Electric offer will require the installation of an additional 240-volt outlet and a larger electrical panel to enable readiness for an EV level 2 charger, allowing the owners to participate in demand reduction programs. With the redesign promoting all-electric construction, the PAs are exploring ways to encourage projects to explore enrollment in a demand response program. With reduced space conditioning

requirements, homes built to the All-Electric offer's requirements will use less electricity for their energy needs and will be better positioned to achieve net zero performance, compared with homes built using current standard building practices. Like the current Multifamily Passive House offering, the All-Electric offer will provide both financial and technical support, spread over key milestones of decision making and construction.

Enhancement #2: Level 2: Introduce an ENERGY STAR NextGen™ offering to the Single Family (1-4 units)

For the 2025-2027 term, the PAs will introduce an ENERGY STAR NextGen offer for the Single-Family pathway (1-4 units). ENERGY STAR NextGen will be a 'Level 1' offer, one level above the Single-Family standard offer. The offer will require homes to meet the standard offer requirements as a prerequisite to program participation but will also align with the EPA's latest all-electric home standard (i.e., ENERGY STAR NextGen). ENERGY STAR NextGen certification is an additional, optional level of recognition from the EPA for homes and apartments that incorporate leading-edge efficient electric technologies and EV charging capabilities to maximize energy and emissions savings, while delivering the comfort, quality, and durability that consumers expect from homes built to ENERGY STAR standards. The offering aligns well with the goals of the Residential New Homes & Renovations program, which seeks to transition the built environment towards higher efficiency, all-electric homes, and apartment units. Unlike the standard All-Electric offer, the program does not allow fossil fuels for lifestyle appliances, such as gas fired fireplaces.

Although many of the standards within ENERGY STAR NextGen align with the standard offer, there are several key areas where NextGen offers an improvement. First, within ENERGY STAR NextGen, the building envelope is approximately 10 percent more energy efficient than 2021 International Energy Conservation Code ("IECC 2021") building energy code. This is a modest improvement over the standard offering which does not have this requirement. Additionally, NextGen requires all installed air source heat pumps to meet ENERGY STAR Cold Climate criteria. Finally, the most notable difference is the requirement for a National Rater Field Checklist in ENERGY STAR, which offers a higher level of commissioning for NextGen projects.

Along with the certification, the PAs will also establish minimum performance criteria for participation through the NextGen offering. These incentives may also be layered with additional adders (see Enhancement #5 below).

Enhancement #3: Level 3—Expand Passive House (single-family and multifamily) offering

During the 2025-2027 term, the PAs will continue to expand the Passive House certification offering for both single and multifamily homes and dwellings. Regarding high-performance building practices, the PAs recognize Passive House as the premier program standard for the new construction market segment. The expanded Passive

House offering will require homes to meet the standard requirements as a prerequisite to program participation, except domestic hot water in multifamily applications. Passive House will serve as the highest-level program offer for both single and multifamily buildings. For single-family projects, electrification of cooking, heating, and domestic hot water equipment will become a requirement for the Passive House offering. This Passive House offer aligns well with the goals of the Residential New Homes & Renovations program, which seeks to transition the built environment toward higher efficiency, all-electric homes, and rental units. The PAs may layer these incentives with additional adders (see Enhancement #5 below). Finally, the PAs will continue to offer technical and design assistance for projects participating in the Passive House offering.

Enhancement #4: Introduce a Level 2 ENERGY STAR Multifamily New Construction certification

During the 2025-2027 term, the PAs will introduce an offer focused on ENERGY STAR certification for the Multifamily/High-Rise pathway (5+ units). The certification will target ENERGY STAR Multifamily Version 1.2 as a tiered offering above the standard Multifamily/High-Rise pathway, and require electrification of space heating, cooking, and clothes drying. Where necessary, the PAs will make an exception for fossil fuel domestic hot water equipment, allowing the equipment to be included in the building; however, the PAs will not claim any savings.

Through this certification, the PAs hope to leverage the existing and trusted ENERGY STAR brand to advance high-performance building practices and reduce emissions in the new construction building sector. In addition to certification, the offer will set minimum performance criteria as a prerequisite for participation and earning incentives. The PAs will make additional incentive adders available and allow market actors to layer them onto this certification offering. In addition, the PAs will consider offering technical and design support. This certification offering can also serve as an alternative to the Passive House offer (a 'Level 2' offering) for multifamily projects. Projects not meeting the stringent performance requirements may still be able to participate through the Level 1 ENERGY STAR Multifamily/High-Rise pathway.

Enhancement #5: Introduce adders

In an effort to increase the adoption of all-electric building practices, the PAs propose also implementing adders, or additional incentives for performance beyond the program's minimum requirements. The goal is to increase participation in the single and multifamily all-electric offerings, by developing incentives encouraging the adoption of newer all-electric technologies. The PAs understand an all-electric building requires additional investment of time and money putting this building practice out of reach for some customers. The PAs designed the adders to alleviate some of the financial burden associated with these practices. To qualify for adders, participants will need to incorporate the technology or equipment identified in the adders' section of their respective program pathway.

Enhancement #6: Include an embodied carbon reduction component

Embodied carbon is a term for GHG emissions released during upstream stages of a product's life cycle. Those stages typically include extraction, production, transport, and manufacturing. As new buildings become more energy efficient, embodied carbon will represent a growing share of total building emissions. According to Architecture 2030, embodied carbon is on track to represent most carbon emissions from new buildings and infrastructure between now and 2030.¹²²

Energy efficiency programs have not widely adopted strategies to reduce embodied carbon. By developing a new construction offer that rewards the reduction of embodied carbon, the Program Administrators will demonstrate national leadership in innovative program design while offering significant value to customers and design teams that reduce embodied carbon emissions. The PAs propose an approach for new construction that will use RESNET standard 1550, currently in development, to provide a standardized means to calculate the embodied carbon of a home. The PAs would offer incentives based on a percent reduction of a set baseline of the overall embodied carbon impact of that project. This approach would offer a three-tier reduction component where the greater the reduction results in an increase in incentives. The proposed tiers are Tier 3 (20-29%), Tier 2 (30-39%), and Tier 1 (40%+) embodied carbon reductions below baseline. The PAs have outlined these incentives in the figure below. Through preliminary findings, the PAs believe these reductions will result in substantial total carbon savings for minimal incremental cost to builders.

For baselines, the PAs would use values established by the 100-home study which the Northeast Home Energy Rating System Alliance is currently completing. This study is analyzing homes and will report what the embodied carbon impact is of a standard home in Massachusetts, thus allowing the PAs to harness this information to provide meaningful carbon reduction savings and incentives to builders and developers.

Incentive Levels

Figure 24: Residential New Homes & Renovations Program Incentive Levels

Measure	Criteria	Incentive Amount
Single-Family (1-4 units): Standard Offer	15% savings above baseline or HERS 45 - All-electric heating, domestic hot water, cooking, and appliances. Propane "lifestyle" auxiliary end-uses allowed	- Single Family: \$7,500 2-unit: \$8,750 3-unit: \$10,000 4-unit: \$11,250

Measure	Criteria	Incentive Amount
Single-Family (1-4 units): ENERGY STAR NextGen ¹	- ENERGY STAR NextGen - HERS: 45% or 30% savings - Air Leakage Rate: 1.5 ACH50 - Ventilation: ERV/HRV - Certification: ESFNC V3.2 + NextGen	- Single Family: \$15,000 2-unit: \$17,500 3-unit: \$20,000 4-unit: \$22,500
Single-Family (1-4 units) Level 2: Passive House ¹	Passive House Certification: PHIUS Core or PHI Performance Targets²	- Single Family: \$25,000 2-unit: \$30,000 3-unit: \$35,000 4-unit: \$40,000
Single-Family (1-4 units) Adders	- Wi-Fi connected thermostat: \$100/unit - Induction cooktop: \$250/unit - Split-system heat pump water heater: \$750/unit - ENERGY STAR certified ground source heat pump: \$4,500/ton (\$9,000 max) - ENERGY STAR Single Family V 3.2 Certification (Standard-Offer only): \$250/unit - DOE Zero Energy Ready certification (Base and ENERGY STAR tier: \$500/unit - Embodied carbon reduction: 20-29% reduction: \$750 30-39% reduction: \$1,500 40% reduction: \$2,250	
Renovations & Additions Standard (Partial Home Heat Pump)	- Pre-electrification required for space conditioning, water heating, cooking, and appliances ≥ 5% savings over baseline	- PFS: \$0.50/kWh + % Savings X \$4,000 - Partial Heat Pump Adder: \$1,250/ton
Renovations & Additions (Whole Home Heat Pump)	- All-electric heating, cooking, and appliances - PFS ≥ 5%	- PFS: \$0.50/kWh + % Savings X \$4,000 - Whole Home Heat Pump Adder: \$10,000
Renovation & Additions (Level 1)	All-electric heating, cooking and clothes drying	Single Family: \$20,000

Measure	Criteria	Incentive Amount
	• $\geq 30\%$ savings over baseline or HERS ≤ 55 • Infiltration limits ≤ 5.0 ACH50 • Ventilation, ERV/HRV optional • EV-Ready Checklist optional	• 2-unit: \$30,000 • 3-unit: \$40,000 • 4-unit: \$50,000 • 5-unit: PFS + \$4,000/unit
Renovations & Additions (Level 2)	• All-electric heating, cooking, and clothes drying • $\geq 50\%$ savings above baseline or HERS ≤ 45 • Infiltration Limits ≤ 3.0 ACH50 • Ventilation: ERV/HRV required • EV-Ready Checklist required	• Single Family: \$30,000 • 2-unit: \$40,000 • 3-unit: \$50,000 • 4-unit: \$60,000 • 5-unit: PFS + \$6,000/unit
Multifamily (5+ units): Standard	• All-electric heating, cooking, and appliances (allowable fossil fuel domestic hot water) • $\geq 15\%$ above baseline or HERS ≤ 45	• Low rise: \$1,500/unit • High rise: \$1,000/unit
Multifamily (5+ units): ENERGY STAR MFNC V. 1.2	• ENERGY STAR MFNC V 1.2	• Low rise: \$2,500/unit • High rise: \$1,750/unit
Multifamily (5+ units): Passive House	• Passive House Certifications • PHIUS or PHI Performance Targets⁵	• \$3,750/unit • (\$750 Pre-Cert + \$3,000 Final Cert) • \$5,000 Feasibility Study • 75% of Modeling Costs (\$500/unit or \$20,000 Max)
Multifamily (5+ units): Adders	• Wi-Fi Connected Thermostat: \$100/unit • Induction Cooktop: \$250/unit • In-unit Heat Pump Water Heater: \$250/unit • Centralized and Split-System Heat Pump Water Heater: \$750/unit⁶ • ENERGY STAR Certified Ground Source Heat Pump: \$1,000/unit • ENERGY STAR NextGen Certification (ENERGY STAR Tier only): \$250/unit • DOER Zero Energy Ready Home Certification (Standard Offer Only): \$250/unit	

Measure	Criteria	Incentive Amount
	• High-rise Whole Building Infiltration Testing (Base and ENERGY STAR Tier only) ASTM E779 test results – 0.4 CFM/sf @75pa: \$300/unit • ASTM E779 test results -0.25 CFM/sq. ft. @75pa: \$400/unit • Embodied Carbon Reduction: \$0.06/kgCO₂e for cumulative reductions in embodied carbon across concrete, steel, flat glass, insulation, and gypsum board. Incentives would be paid to the customer at the end of construction upon verification of submittals • \$2,000 stipend to offset the costs of calculating their projects GWP reduction and assembling documentation • Up to \$10,000 for Whole Building Life Cycle Assessment (“WBLCA”) and building reuse feasibility analysis that would get the project to 75% or greater structure and enclosure reuse	
1. Standard tier requirements must be met as prerequisite. 2. Pre-certification is mandatory, full certification is optional (Rater verification required). 3. Fossil fuel domestic hot water is allowable in multifamily projects: Base level prerequisite required for all levels. 4. Performance specifications required for multifamily low-rise projects, no set performance standards for high-rise projects. Standard tier requirements must be met as prerequisite. 5. PHI Low-Energy Buildings and EnerPHit will be eligible. 6. Heat Pump Water Heater can be in-unit individual heat pump water heater, split system heat pump water heater or centralized heat pump water heater. Individual heat pump water heaters must meet installation quality commissioning standards of DOE Zero Energy Ready Home MF V2.0.		

3.1.2 Residential Turnkey Solutions

Historically, the primary objective of the Residential Turnkey Solutions program (formerly Residential Coordinated Delivery) has been to deliver comprehensive Home Energy Assessments and weatherization installations. These assessments provide customers with energy efficiency recommendations to facilitate the weatherization of all residential building types and all market-rate customer segments (e.g., market-rate and moderate-income owners, renters, and landlords). While this remains a primary objective for the 2025-2027 term, the Residential Turnkey Solutions program will broaden its focus to promote the adoption of additional decarbonization measures through electrification including heat pumps for space heating and domestic hot water, EV charging, appliances (e.g., ENERGY STAR radiant stoves, clothes washers and dryers, lawn equipment, etc.), battery storage, and onsite renewable energy. The program will expand its turnkey delivery model to address technical barriers to

decarbonization such as health and safety issues and electrical panel upgrades to support heat pump installation, and non-technical barriers such as out-of-pocket costs, administrative burden, and time commitment, starting first with moderate-income customers.

In support of these objectives, the PAs will expand the scope of the legacy Home Energy Assessment to provide a more decarbonization-themed experience for participants and promote the adoption of more decarbonization measures. The scope of the Home Energy Assessment will be adapted to gather new site-specific data points related to suitability to implement program-eligible decarbonization measures, such as electrical service and panel capacity, electrical distribution, and house orientation. These additions will help produce a new Home Energy Assessment report, one that will ensure the PAs provide customers with clear, prioritized next steps in their decarbonization journey. The assessment will include new opportunities for customer education and will provide updated information for customers to pursue decarbonization beyond the program's offerings.

The Residential Turnkey Solutions program includes incentives and support to enable residential customers to undertake decarbonization upgrades in existing homes, particularly through building envelope measures such as air sealing and insulation (collectively "weatherization"), and electrification measures such as heat pumps. A key function of the program is to streamline a customer's participation experience and the process of implementing decarbonization measures by offering turnkey services. Turnkey delivery ensures the PAs support customers from project origination to project completion by a single vendor managing the multiple steps and subcontractors throughout the process. The turnkey delivery approach also allows the PAs to provide instant incentives to the customer, reducing or eliminating out-of-pocket costs and potential incentive fulfillment delays. When applied across multiple project types (e.g., weatherization, barrier remediation, electrification, etc.), the turnkey model can make decarbonization much more accessible for customers with varying motivations, financial situations, or expendable time and effort.

Turnkey weatherization will remain at the core of the program throughout the 2025-2027 term and the PAs will expand turnkey services first for moderate-income households to include heat pumps, as well as the remediation of barriers to weatherization and electrification. The PAs will develop a turnkey heat pump pathway for all market-rate customers by 2027. When ready, the PAs will make DOE Home Energy Scorecards available for program participants who opt-in. The program supports participation of moderate-income customers, renters (through their landlords), and LOTE customers by offering specialized resources and incentives and through various engagement and implementation strategies.

Program Design

For program eligibility, customers must hold an active, residential electric or natural gas utility account with one or more of the PAs. Customers who reside in municipal electric towns must heat their home with natural gas from one of the Program Administrators.¹¹³ Multifamily buildings must meet these requirements as well, though these buildings may have both residential and commercial accounts onsite. In these cases, customers are eligible for all cost-effective measures regardless of the account type.

Program Pathways

The Program Administrators implement Residential Turnkey Solutions through the following two pathways:

1. Single-Family, a pathway that primarily serves residential buildings with 1-to-4-units, and
2. Multifamily, a pathway that primarily serves residential buildings with 5 or more units.

If appropriate, the Single-Family pathway may serve buildings with 5+ units that share construction or building design that are more like a single-family home. Alternatively, the Multifamily pathway may serve buildings with 1-to-4-units when a commercial meter or common heating system is on-site.

Both pathways provide enhanced offerings for moderate-income and renter-occupied units. The program's Home Energy Assessments serve as the primary entry point and mechanism for customers to engage and receive program information about relevant offers and how to move forward with facilitated program services. As the program evolves further toward decarbonization, the PAs will adapt the no-cost Home Energy Assessment to promote and facilitate decarbonization opportunities for interested customers.

The assessment will retain traditional energy efficiency, energy reduction, and actionable recommendations prioritized by cost effectiveness as core principles. The process and outputs from the assessment will retain an immersive customer experience, relevant customer education, a customized action plan, and the ability to engage in turnkey services as core deliverables. The transition of the Home Energy Assessment to identify and support decarbonization will first include updated customer education, collateral, and resources. Then the assessment will integrate electrification measures into the prioritized action plan and will present opportunities to engage in additional turnkey services when appropriate.

¹¹³ Low-use natural gas accounts do not qualify.

The Home Energy Assessment will be flexible in scope to align with customer objectives and needs, offering both in-person and virtual engagement options, but will be able to address all these components:

- Evaluation of existing conditions to identify technical opportunities for all Mass Save program offerings, with an emphasis on weatherization and electrification of space heating and water heating.
- Identification of barriers to decarbonization including health and safety barriers to weatherization and electrical panel capacity for electrification.
- Customer education regarding available rebates, incentives, and financing offers, which includes presenting the customer with the opportunity to move forward with turnkey services.
- Information on the opportunity and next steps for pursuing additional decarbonization measures not supported through turnkey services, such as ENERGY STAR radiant stoves, battery powered lawn equipment, renewable energy and storage, and EV charging.

Single-Family Pathway (1-to-4-units)

Through the Single-Family pathway (1-4 units), the PAs provide customers with flexible options for participation to support customer choice and to meet customers where they are on their decarbonization journey. Customers who are either beginning their decarbonization journey or who want to understand the full range of program offerings available to them would start with the Home Energy Assessment. Implementation Lead Vendors and Home Performance Contractors (“HPCs”) provide the Home Energy Assessments. Implementation Lead Vendors provide the assessment and all its components, deliver the turnkey services of decarbonization measures, manage trusted subcontractors, provide QA/QC inspections, and remain a long-term program resource for the customer. HPCs provide Home Energy Assessments, decarbonization solutions, and may offer additional services outside the program. Implementation Lead Vendors all manage HPCs, Independent Installation Contractors, select HPIN contractors, and other specialty contractors for barrier mitigation. Contractors provide direct-install measures at no-cost during assessments, and deliver decarbonization measures through turnkey services including weatherization, pre-weatherization barrier remediation, heat pumps, and pre-electrification barrier remediation.

The PAs contract with Implementation Lead Vendors and select them through a competitive procurement process to ensure they have adequate program delivery capacity to satisfy customer demand and can deliver services in a cost-effective manner. This Pathway uses fixed weatherization pricing which the PAs procure through a competitive Request for Qualification (“RFQ”) process conducted every two years. As the Program Administrators expand turnkey services to include barrier repairs and electrification, this Pathway will develop a new turnkey pricing structure for these services and ensure adequate contractor capacity to deliver these services to meet

customer demand throughout the 2025-2027 term. Barrier repair and electrification pricing guidelines will be employed early in the 2025-2027 term; these guidelines will inform both the procurement practices employed by the PAs and vendors as well as the pricing standards recognized by the contractors providing these services.

The Program Administrators will develop a network of contractors to provide these turnkey services as needed to meet customer needs, support supplier diversity, and encourage competitive project pricing. These guidelines, and the operational procedures employed by the vendors in managing these projects, will apply a comprehensive approach to ensuring cost effectiveness. The PAs and vendors will establish a shared pricing database in 2025 to monitor the actual cost of completed projects from 2025-2027, including technical descriptions sufficient to develop refined correlations between project scope and project cost, with the objective of establishing fixed pricing for heat pumps by 2027.

Implementation Lead Vendor

Implementation Lead Vendors are responsible for the overall management of the major components of the program including:

- Support customer intake through multiple channels with the objective of getting customers to the appropriate service that meets their needs and determining their eligibility for the most applicable and best program incentives.
- Complete Home Energy Assessments for eligible customers either directly or through their management of the HPCs.
- Manage multiple contractor networks necessary for supporting turnkey delivery of decarbonization measures including:
 - Independent Installation Contractors who complete weatherization projects assigned to them by the Implementation Lead Vendors as an outcome of the assessment, or who complete weatherization projects through the Direct Weatherization pathway without the Home Energy Assessment requirement.
 - HPCs who serve customers directly with Home Energy Assessments and decarbonization solutions. These contractors can also offer additional home improvement services outside of the program.
- Select among a participating subset of HPIN contractors who provide heat pumps installations for eligible customers through turnkey delivery as an outcome of the Home Energy Assessment.

- Other trade allies such as electricians and other specialty contractors who provide evaluation and remediation services of pre-weatherization or pre-electrification barriers.
- Implement QA over the entire delivery process including QC inspections of completed projects.
- Provide program data tracking, evaluation, and reporting to support program monitoring and continuous improvement.

Home Performance Contractors

HPCs provide Home Energy Assessments and turnkey decarbonization solutions and may offer additional non-program related services. The Implementation Lead Vendor manages these contractors.

Independent Installation Contractors - Direct Weatherization

Independent Installation Contractors are weatherization installers who the Implementation Lead Vendors manage. The Implementation Lead Vendor assigns these contractors weatherization projects or they can bring self-generated weatherization referrals into the program. Some Independent Installation Contractors have opted into the Direct Weatherization pathway. This pathway provides customers who are solely focused on weatherization with the most immediate access to turnkey weatherization without requiring the Home Energy Assessment.

Quality Assurance and Quality Control

The Residential Turnkey Solutions program uses a comprehensive QA/QC framework to maintain consistency and integrity. The program maintains detailed process and procedure documents to define expectations for critical program functions, such as completion of Home Energy Assessments and Material & Installation Standards for Weatherization. Implementation Lead Vendors, HPCs, and Independent Installation Contractors must follow the procedures and processes detailed within these documents. Third-party QA/QC vendors and Implementation Lead Vendors conduct the QC inspections. The PAs use these QC inspections as a critical element to support continuous improvement. The QC inspections provide feedback to the energy specialists who deliver Home Energy Assessments and to the Independent Installation Contractors. The QA/QC framework ensures contractors complete their work to a consistent standard to assure high levels of customer satisfaction and persistence of savings and related benefits for customers and the Commonwealth.

Multifamily Pathway (5+ unit buildings)

Through the Multifamily pathway, the PAs provide flexible options for participation to support projects at multiple stages and originating from multiple sources. The primary pathway for participation is through the Multifamily Implementation Lead Vendor. This vendor provides customers no-cost building assessments and customized decarbonization offerings for multifamily buildings. The PAs give Implementation Lead Vendors the flexibility to bring along their own contractor or provide a trusted subcontractor(s) for one or more phases of their decarbonization project. On a case-by-case basis, the PAs may use a secondary pathway through a Small Business or Large Commercial custom offering to meet the building's and/or customer's needs.

These pathways apply to commercial metered buildings that typically have a single decisionmaker, such as a property manager and/or landlord. Regardless of which program a multifamily decisionmaker applies to, the offerings and incentives are consistent. The Program Administrators have an existing process to ensure that they address all energy efficiency and decarbonization opportunities through the program that is best suited to do the work. This may dictate that the same site benefits from multiple programs with the Implementation Lead Vendor acting in a general-contractor-type capacity to ensure the experience is seamless for the decision makers. The program offers direct-install measures at no-cost inside dwelling units and supports major measures at the unit- or building-level include primarily weatherization and electrification of space and water heating. The program may support additional measures based on opportunities unique to large multifamily buildings (e.g., energy recovery ventilator, commercial chiller, etc.).

The PAs contract with Implementation Lead Vendors and select them through a competitive procurement process. The Implementation Lead Vendors are responsible for overall management of the major components of the Residential Turnkey Solutions Multifamily pathway including:

- Supporting customer intake through multiple channels with the objective of getting customers to the appropriate service to meet their needs and determining their eligibility for the most applicable and best program incentives.
- Completing building assessments for eligible customers.
- Managing multiple contractor networks necessary for supporting delivery of decarbonization measures:
 - Weatherization contractors who complete weatherization projects assigned to them by the Implementation Lead Vendors as an outcome of the building assessment.
 - HVAC contractors who provide heat pumps and other large mechanical system upgrades.

- Customer-selected contractors with whom customers have engaged prior to the Implementation Lead Vendor.
 - Other trade allies such as electricians and other specialty contractors provide evaluation and remediation services of pre-weatherization or pre-electrification barriers.
 - Implementing QA over the entire delivery process including QC inspections of completed projects.
 - Providing program data tracking, evaluation, and reporting to support program monitoring and continuous improvement.
 - Providing the technology solution(s) to screen multifamily projects for eligibility and determine incentives.
- In some multifamily buildings, sites with a mix of residential and commercial or retail space may receive services through both the Multifamily pathway and a C&I sector program. Each PA has a process in place to ensure that the site is addressed as comprehensively as possible and that there is coordination between programs. When multifamily building projects come through a C&I sector program, the PAs follow the C&I program process to ensure consistency.

Quality control

For multifamily buildings, the Implementation Lead Vendors pre- and post-inspect all sites for weatherization work and perform in-process inspections. Like the Single-Family pathway, Implementation Lead Vendors and any subcontractors who perform installations in the Multifamily pathway must follow the Material & Installation Standards for Weatherization. A third-party QA/QC vendor also performs pre-, post-, and in-process inspections at a minimum of 10 percent of all Multifamily pathway projects. As noted in the Single-Family pathway, the QA/QC framework ensures contractors complete their work to a consistent standard to maintain high levels of customer satisfaction and persistence of savings and related benefits for customers and the Commonwealth.

Barriers to Participation

Customers may face both technical and non-technical barriers to participation in the Residential Turnkey Solutions program. Technical barriers typically take the form of health and safety issues present in the building and contractors identify them during the Home Energy Assessment or building assessment. Contractors disclose existing health and safety issues to the customer, and they may deem these issues as a pre-weatherization or pre-electrification barrier depending on the relationship between the issue and the decarbonization opportunity.

The program provides incentives and services for the remediation of barriers to decarbonization; however, some buildings contain multiple, complex barriers which may impose more cost than the decarbonization opportunity

can support and remain cost effective. The PAs consider Single-Family pathway weatherization as retrofit in nature, meaning contractors apply qualifying weatherization methods and materials to the existing structure without significant modification or renovation. As such, the PAs cannot better weatherize some buildings through this offering if the weatherization opportunity they present would require a more invasive approach. As the Program Administrators deploy turnkey electrification statewide, they expect that pre-electrification barrier and heat pump design complexity, necessitated by the existing building conditions, may impose cost barriers under the objective of keeping projects cost effective. The PAs will stay engaged and exercise creativity, working with their implementation partners to address these cost barriers effectively, including novel technical solutions, and leveraging federal and other funding sources where possible.

Non-technical barriers to customer participation include lack of financial flexibility or expendable time or energy, and not understanding that program offerings apply to them. Many other non-technical barriers to participation exist and are highly situational and individual in nature, however lack of available time and energy to dedicate to decarbonization are two non-technical barriers affecting all customer segments.

Customer segments historically underserved by the Residential Turnkey Solutions program, including renters and moderate-income households (as outlined in the Executive Summary), often face multiple technical and non-technical barriers to participation. The PAs understand turnkey solutions that address cross-cutting barriers to participation for underserved customer groups is key to ensuring equitable program access and participation. Therefore, the PAs are employing the following solutions to address these barriers:

Technical barrier solutions

- Turnkey pre-weatherization and pre-electrification barrier repair services for qualified customers.
- Facilitated pre-weatherization barrier evaluations for knob-and-tube and combustion safety issues.
- Financing through the HEAT Loan to cover out-of-pocket costs for pre-weatherization and pre-electrification barrier repairs.

Non-technical barrier solutions

- The turnkey delivery model addresses multiple non-technical barriers to participation through end-to-end facilitation of decarbonization projects.
- Home Energy Assessments focused on decarbonization organize multiple next steps and decision points for customers within a prioritized plan.

- Customer self-scheduling for Home Energy Assessments and the option of virtual engagements (Home Energy Assessments, Decarbonization Consultations) enables participation for customers with time constraints
- Vendor-contracted pre-weatherization barrier repair, pre-electrification, weatherization, and heat pumps eliminate the need for participants to spend time in pursuit of solutions on the open market.
- Vendor management of multiple project phases allows for proper sequencing and coordination of subcontractors, which reduces logistical complexity for the customer.
- Incentives are delivered instantly, which reduces or eliminates out-of-pocket costs for customers.

In the Multifamily pathway, building typology often dictates a custom decarbonization approach (e.g., the Single Family retrofit approach cannot easily be applied) which necessitates the PAs screening and scoping projects individually for cost effectiveness. These “custom” projects may not be cost effective at this point and may require a modification of scope to achieve cost effectiveness. To the extent possible, the PAs will pull from existing programming and pathways for similar building typologies to ensure cost-effectiveness and a streamlined customer experience, such as the Single-Family pathway or C&I programming. For example, an eight-unit building presenting similar characteristics and decarbonization opportunities as those typically seen in the Single-Family pathway will be able to access similar incentives through the Multifamily pathway. The existence of multiple decisionmakers, lack of available decisionmakers, or misalignment between decisionmaker objectives and cost-effective technical opportunity may impose additional non-technical barriers to progress in multifamily settings.

The PAs will employ all technical and non-technical barrier solutions from the Single-Family pathway to the Multifamily pathway where feasible (e.g., where working with individual decision-makers or where turnkey pre-weatherization solutions are possible and cost-effective in the overall project scope), and through their Implementation Lead Vendor will provide comprehensive, scalable project- and portfolio-management services for building owners in larger, custom project situations. Through advanced data analysis and community engagement, multifamily buildings will be pre-qualified and targeted with special turnkey offerings (as outlined in Strategic Enhancements section below).

How the Program Addresses Plan Priorities

The program will promote education and the embrace of decarbonization, support the decarbonization “journey” for each customer or building, implement core decarbonization measures like weatherization and electrification, and prioritize recommendations for further decarbonization opportunities. The program will provide special incentives and support for renters and moderate-income customers.

Strategic Enhancements

Enhancement #1: Expand Home Energy Assessments to include decarbonization opportunities

Historically, the program's Home Energy Assessments involved traditional energy efficiency, an assessment of the building envelope to identify weatherization opportunity, and identification of HVAC and mechanical system upgrade opportunities, as well as providing customer education on these core technologies. As the program transitions to embrace decarbonization, the PAs will support customers with a more complete assessment of opportunities for pursuing decarbonization of their homes. For the 2025-2027 term, the assessment will evolve to identify more electrification and decarbonization opportunities, present those opportunities in a prioritized fashion, facilitate more of those opportunities through turnkey delivery, and enable electrification technologies to perform at peak efficiency through supporting building readiness and customer education.

The Program Administrators will significantly overhaul the customer-facing Home Energy Assessment Report to embody this evolution, and they will deploy the new report by early 2025. Early in the 2025-2027 term, the Home Energy Assessment Report design will prioritize visual enhancements, highlight, and make actionable the relevant turnkey offerings, introduce a decarbonization journey concept, maintain information on rebates and other Mass Save offerings, and will include visual features to provide information on further decarbonization opportunities. Later in the 2025-2027 term, the PAs will retain these key features in the Home Energy Assessment Reports but will update it to provide the most relevant, up-to-date, and actionable information on the further decarbonization opportunities not directly supported by Residential Turnkey Solutions or Mass Save programs (e.g., renewable energy incentives).

Enhancement #2: Expanded turnkey delivery for moderate-income and market-rate customers

The Residential Turnkey Solutions program has demonstrated success in the deployment of a full-service turnkey model for weatherization. This model established technical standards and best practices, provided structured pricing and instant incentive fulfillment, maintained QA/QC standards and systems, and developed a supporting workforce, all united by an end-to-end project facilitation approach that enables participation. Using that model as a framework, the PAs will provide turnkey services for barrier mitigation and heat pump installation. As described in Enhancement #3 below, the PAs will offer these expanded turnkey services to moderate-income households for the 2025-2027 term and will adapt the model as needed with the eventual goal to offer a Turnkey Heat Pump pathway for market-rate customers by 2027.

Based on lessons learned in 2022-2024, the PAs will establish technical standards and best practices in heat pump design and installation to support system performance and customer satisfaction. The PAs will establish turnkey

pricing to provide cost-predictability and instant incentive delivery. The PAs will provide customer education, will support a QA/QC framework, and will provide ongoing support for customers who have electrified through this path. The PAs will develop and support HPCs and a subset of the HPIN who have opted to work within this path. Established technical standards, end-to-end QA, and project allocation will allow the PAs and Heat Pump Installation Network partners to positively influence pricing and capacity in the heat pump market.

The expanded suite of residential turnkey services will be in-market statewide for verified moderate-income customers to start 2025. The PAs will use these services to deliver equitable decarbonization in designated equity communities starting in early 2025, with the commitment that all designated equity communities will be engaged and receiving service through this delivery model by the end of 2025. The PAs will engage with stakeholders and will support an embedded evaluation to determine the effectiveness of new turnkey offers compared to traditional pathways and to assess market readiness to determine the appropriate date for their expansion to all market-rate customers. The PAs anticipated expanding turnkey services to market-rate customers before the end of the 2025-2027 term.

Enhancement #3: Enhancements to moderate-income qualification, offerings, and delivery

Currently, the PAs offer enhanced incentives for moderate-income customers. Based on poor historical performance of moderate-income offers, and their continued commitment to serve this market segment, the Program Administrators recognize the need for some implementation modifications. In collaboration with stakeholders, the PAs have identified several improvements to reduce barriers to participation for moderate-income customers including changes to qualification, plus offerings and delivery.¹¹⁴

Streamlining qualification

- **AMI and SMI qualification.** The Program Administrators will include both AMI and SMI in the moderate-income qualification criteria to expand the pool of eligible households. Through this enhancement, the PAs will maintain 60% SMI as the bottom threshold to avoid infringement on low-income eligibility standards but will observe the greater of 80% AMI/SMI as the top threshold. This change will better align the PAs' moderate-income definition with that of state and federal benefits and incentive programs and allow the PAs to better account for cost-of-living disparity across Massachusetts.

¹¹⁴ The PAs rolled out several changes to qualification at the end of the 2022-2024 term, including AMI and SMI qualification, self-attestation, and multifamily building pre-qualification. The PAs plan to continue these enhancements for the 2025-2027 term.

- **Self-attestation.** Customers can self-attest to their household income to qualify for weatherization incentives offered through the Residential Turnkey Solutions program. The PAs will still require customers who self-attest for weatherization incentives to complete income verification to pursue other moderate-income incentives.
- **Categorical eligibility.** The PAs will require moderate-income qualification through an income verification portal. In this portal, customers must identify any income-based benefits programs in which they are enrolled for the purpose of early identification of low-income customers; however, the PAs are committed to expanding this approach to eligibility to include programs whose income ranges align with moderate income, to streamline qualification for these customers, where possible. The PAs also plan to explore data sharing agreements with benefit program administrators to pre-qualify customers and market moderate-income offerings directly to them.
- **Multifamily building pre-qualification.** The PAs are leveraging multiple data sources to identify multifamily sites that are part of census tracts that they can consider candidates for moderate-income pre-qualification. The PAs will review the resulting list of properties to identify those which can be pre-qualified at the building or unit level for moderate income offers. The PAs intend to use this data-based approach alongside the other moderate-income qualification enhancements to increase the number of customers qualified for moderate-income incentives, including extending these pre-qualifications to enhanced incentives under the Residential Rebates program and exploring opportunities within deed-restricted properties housing moderate-income customers.

To increase participation in rental-units and recognizing the difficulty of obtaining income information from all residents in renter-occupied multifamily buildings, the PAs will consider this data-based approach and other methodologies for qualifying these buildings for moderate-income incentives. These could include but are not limited to buildings with 25-49 percent low-income units (below the 50 percent threshold for building-level Low-Income program eligibility), analysis of rent rates per unit considering a 35 percent rent-to-income ratio as a proxy for income and observing rent amounts that are consistent with deed restricted properties.

Expanded offerings and delivery models

- Turnkey delivery for moderate-income customers for weatherization, pre-weatherization barrier remediation, and heat pump installations. Moderate-income qualified customers will be eligible for no-cost weatherization and no-cost pre-weatherization barrier remediation through the Residential Turnkey model. Once a customer agrees to move forward with the recommendations, the program will completely

manage the delivery from contractor allocation, to price management, to quality control. Additionally, customers will have the option to pursue no-cost pre-electrification barrier remediation and no-cost heat pump installations through the Residential Turnkey model, including heat pump water heaters in select instances. If a moderate-income qualified customer does not wish to participate in the no-cost turnkey process, they still would be eligible for the enhanced offers provided through the Residential Rebates program.

Enhancement #4: New strategies to increase landlord participation for rental units in designated equity communities

To serve renters and rental properties more comprehensively, the PAs worked collaboratively with DOER and the EWG to establish criteria and select designated equity communities for the 2025-2027 Plan for which the PAs will provide simplified qualification for no-cost weatherization, barrier remediation, and electrification where it will not increase renters' energy burdens. Except for communities located in Cape Light Compact territory, which has a unique territory with distinctive characteristics, DOER and the PAs selected communities in which: (1) more than 35 percent of the population are renters; (2) there were greater than 8,000 renters; and (3) more than 50 percent of the population are low- or moderate-income. The process resulted in selection of the 21 communities shown in Figure 25 below. Unitil, Berkshire Gas, and Liberty may further limit eligibility within these communities in their service territories by focusing on certain environmental justice census blocks. To accomplish this goal the PAs will automatically qualify all properties with more than 50 percent rental units within these communities for moderate-income turnkey offers. Turnkey delivery will address time constraints and logistics, manage costs, improve the customer experience, and ensure essential renter protections are in place. The program will require landlords to sign a form – like what the PAs require for the Low-Income program—committing them not to raise rents or evict tenants for a period following the receipt of program incentives.

The PAs' primary objective in the designated equity communities is to drive increased weatherization of rental units and low- and moderate income-owned buildings given its beneficial impact on energy burden, occupant health and wellness, and building resiliency and value. The PAs will support pre-weatherization barrier remediation alongside these weatherization projects, as cost-effective. The PAs' secondary objective is to electrify these units with heat pumps for space heating, and in some cases heat pump water heaters. The PAs will support pre-electrification barrier remediation to enable these electrification projects, as cost-effective. There are two reasons for this approach: (1) Buildings must be sufficiently weatherized so technicians can correctly size and optimize the performance of electrification equipment, and (2) Electrification of certain renter-occupied buildings may lead to increased energy burdens for the tenants, which is an outcome the PAs want to be careful to avoid.

for these vulnerable customer groups. The PAs' agreement to provide these incentives will contain specific energy burden protections based on the unique conditions of each building and pair them with the form protecting renters from rent increases and eviction. This case-by-case approach to defining and employing these protections as an offer contingency is only feasible through the PAs' turnkey delivery model.

The PAs will begin deploying this offer in designated equity communities in early 2025 and will expand to all designated equity communities by the end of 2025. The PAs may use designated environmental justice census blocks within these communities or work with a community to identify target buildings to focus this offer and maximize resources. The PAs will deliver this offer via the Residential Turnkey Solutions Single-Family Pathway for buildings with 1-to-4 units and via the Multifamily Pathway for buildings with 5+ units. The PAs will still serve buildings in designated equity communities with 50 percent or more low-income units through the Low-Income program.

The PAs believe that to provide equitable access and ensure that the benefits of decarbonization improvements reach their most vulnerable populations, they must consider both the technical best-practices of decarbonization and the economic impacts of the installed measures within each building's and participant's unique situation. This individual project focus is essential to the designated equity communities offer and will be achieved through the Residential Turnkey model and facilitated by the targeting and engagement strategy described below.

First, the PAs will work with community stakeholders, including Community First Partners, to help identify target buildings or neighborhoods in each designated equity community. This effort will focus on buildings or neighborhoods with majority renter and moderate-income populations, in which electrification will not result in increased energy burden for the residents. The PAs will achieve these efforts by focusing on buildings that heat with delivered fuels and electric resistance, and through the execution of property owner agreements required to access these offers.

Second, the PAs will collaborate with community stakeholders, including Community First Partners, and others to develop a customized outreach strategy for each community. This outreach could be any combination of grassroots, multimedia marketing, or other forms, and would be delivered in the appropriate language based on each customer's and community's unique needs. The PAs will also work with the MassCEC to promote this opportunity through their programming including EmPower Massachusetts, the Building Electrification & Transformation Accelerator efforts, and the upcoming Building Energy Exchange.

Third, the PAs will engage these properties through their Residential Turnkey Solutions Implementation Lead Vendors to provide end-to-end facilitated decarbonization services appropriate for each building's and resident's

unique situation. This turnkey approach will reduce the time and effort required by participants, reduce or eliminate out-of-pocket costs for participants, and ensure high-quality decarbonization is paired with high-quality customer education and service. The PAs' Residential Turnkey Solutions Implementation Lead Vendors and HPCs will be established in these communities and will be able to deploy additional resources to support demand, further adding to the community awareness and engagement efforts. The PAs' Low-Income Implementation Lead Vendors and CAP agencies will also be active in these communities, and through an advanced protocol will coordinate with Residential Turnkey Solutions vendors to provide seamless service to all mixed-income buildings.

For single-family homes (1-4 units) located in a designated equity community, the PAs will support decarbonization for renters and moderate-income homeowners through the moderate-income turnkey offers. Additionally, the PAs will automatically qualify all households in the community for no-cost, moderate-income turnkey weatherization.¹¹⁵ Buildings with greater than 50 percent renter-occupied units will be automatically qualified for no-cost barrier remediation and heat pump offers (contingent upon previously described renter protections), while the PAs will require moderate-income homeowners to verify income to access this portion of the offer.

The PAs will provide service to multifamily buildings through a lead vendor, ensuring the most accessible, organized participation experience across this widely varying subset of building stock and multifamily buildings within these communities with more than 50 percent rental units will also qualify for the moderate-income turnkey offers. The PAs anticipate that many renters and moderate-income customers will reside in multifamily buildings, and thus will apply novel, custom solutions to implement weatherization and electrification while addressing the technical challenges inherent in this type of building stock. The PAs will, both through their collaborative targeting efforts and through the building data collected and customer relationships established by their common implementation lead vendor, be prepared to apply some solutions to the challenge of electrification without increasing energy burden.

The first two elements of this strategy (*targeting and identification, outreach, and engagement*) will require intense, sustained coordination between the PAs and partners (e.g., community stakeholders, Community First Partnership, etc.). The third element—*implementing meaningful decarbonization without increasing energy burden for predominantly renter-occupied and moderate-income households*—will require a significant dedication

¹¹⁵ Unifit will make no-cost weatherization available to all households located within designated environmental justice census blocks within Fitchburg, as opposed to the entire municipality.

of resources, experience, and subject matter expertise, as well as constant coordination among the PAs themselves, the PAs' community partners, and trade allies.

Figure 25: 2025-2027 Designated Equity Communities

Criteria*: At least 35% Renters, at least 8,000 renters, at least 50 percent low- and moderate-income.

***Note:** The Compact has a unique territory with different characteristics, and therefore the criteria for selection of the Compact communities differed.

Community	EJ	Electric PA	Gas PA	Active Electric Accounts	% Renter Occupied Units (Veracity)	Renter Number	% House Heating Fuel:			Delivered Fuel + Electric (Count)	% Low + Moderate Income (Veracity, Based on AMI)	% Moderate Income (Veracity, Based on AMI)	CFP Town	Gateway Town	Cumulative Participation Rate (Since 2013)	Electric Heating	Gas Heating	% of Population 18 yrs and older enrolled in College or Graduate School (ACS 2022)
							Delivered Fuel (ACS 2021)	Delivered Fuel (Count)	Delivered Fuel + Electric									
Chelsea	Yes, EJ	ES	NG	15,900	72%	11,417	12%	1,923	42%	6,624	71%	29%	No	Yes	40%	30%	57%	6%
Lawrence	Yes, EJ	NG	ES	31,100	69%	21,487	6%	1,849	28%	8,626	68%	17%	Yes	Yes	22%	22%	71%	8%
Boston	Yes, some zips	ES	ES & NG	337,300	65%	219,043	10%	33,826	39%	132,282	57%	23%	Yes	No	45%	29%	59%	18%
Fall River	Yes, EJ	NG	Liberty	44,700	64%	28,463	8%	3,629	19%	8,425	69%	18%	Yes	Yes	17%	11%	80%	6%
Everett	Yes, EJ	NG	NG	19,000	63%	11,895	16%	2,990	29%	5,481	70%	33%	Yes	Yes	24%	13%	71%	7%
New Bedford	Yes, EJ	ES	ES	45,600	61%	27,783	9%	4,206	17%	7,736	65%	16%	Yes	Yes	40%	8%	81%	6%
Malden	No	NG	NG	29,800	57%	17,066	19%	5,604	36%	10,863	60%	25%	Yes	Yes	29%	18%	61%	11%
Lowell	Yes, EJ	NG	NG	44,800	56%	25,021	8%	3,754	30%	13,471	56%	17%	Yes	Yes	22%	22%	68%	13%
Quincy	No	NG	NG	50,300	56%	27,986	18%	8,919	46%	23,144	58%	29%	Yes	Yes	28%	28%	53%	9%
Worcester	Yes, EJ	NG	ES	78,800	55%	43,567	18%	14,577	46%	36,375	60%	16%	Yes	Yes	28%	28%	52%	17%
Springfield	Yes, EJ	ES	ES	65,200	52%	34,047	17%	11,094	38%	24,491	71%	16%	Yes	Yes	45%	21%	59%	10%
Lynn	Yes, EJ	NG	NG	37,900	52%	19,691	22%	8,215	42%	15,743	71%	29%	Yes	Yes	30%	20%	57%	7%
Revere	Yes, EJ	NG	NG	25,100	49%	12,348	19%	4,669	38%	9,648	63%	25%	Yes	Yes	27%	20%	60%	7%
Salem	No	NG	NG	20,800	48%	10,048	21%	4,345	42%	8,664	63%	27%	Yes	Yes	40%	21%	57%	11%
Framingham	No	ES	ES	31,000	44%	13,751	23%	7,280	51%	15,741	54%	26%	Yes	No	54%	27%	47%	8%
Fitchburg	Yes, EJ	Unitil	Unitil	19,200	44%	8,423	30%	5,845	48%	9,298	60%	19%	No	Yes	38%	18%	48%	9%
Brockton	Yes, EJ	NG	ES	37,000	42%	15,679	28%	10,176	43%	15,771	53%	17%	Yes	Yes	35%	15%	56%	9%
Woburn	No	ES	NG	19,600	42%	8,272	36%	7,148	51%	10,054	52%	27%	No	No	49%	15%	48%	8%
Pittsfield	Yes, EJ	ES	Berkshire	22,400	36%	8,001	27%	5,966	37%	8,234	60%	18%	Yes	Yes	51%	10%	61%	7%
Oak Bluffs*	Yes, EJ	CLC	No gas	4,500	28%	1,249	73%	3,302	82%	3,708	40%	8%	Yes	No	29%	9%	11%	3%
Tisbury*	Yes, EJ	CLC	No gas	3,300	28%	915	75%	2,473	95%	3,143	50%	20%	Yes	No	40%	20%	0%	4%

Enhancement #5: Continued development of cost-effective weatherization offerings

Weatherization will remain a core decarbonization strategy within the Residential Turnkey Solutions program, and eligibility for whole home heat pump incentives will continue to require sufficient weatherization. The PAs will continue to market weatherization to customers within six months of completing heat pump installations to ensure sufficient weatherization. Currently, the program offers turnkey delivery of weatherization using cost-effective methods and materials that meet the needs of most residential retrofit technical opportunities. The PAs are committed to the continued development of retrofit weatherization offerings that support the achievement of the Commonwealth's GHG emissions reduction goals in a cost-effective manner.

Enhancement #6: Incorporate language access recommendations to increase access for LOTE customers

During the 2022-2024 term, the PAs engaged with industry experts to help provide language access recommendations to support access for Residential and Small Business customers. The PAs plan to incorporate relevant recommendations within the Residential Turnkey Solutions program to support LOTE customers' access, understanding, and participation. Language access recommendations include a review of vital documents for translations, multilingual statewide contact center support services, and interpretation services for in-person visits. Continuity of translation services across PAs and vendors is also important to ensure customers have a seamless experience and are not missing key information about the program and their eligibility for incentives.

Incentive Levels

Figure 26: Residential Turnkey Solutions Program Incentive Levels

Measure	Criteria	Incentive Amount
Air sealing	Decreasing outside air flow by sealing gaps in thermal envelope	100%
Duct sealing	Ductwork outside the thermal envelope	100%
Building insulation	Improve up to R-49 in attics and fill any closed cavities to capacity	75% for market rate, 100% for moderate income, rental units, and Whole Building projects

Measure	Criteria	Incentive Amount
Duct insulation	Outside thermal envelope, less than R-2 existing insulation	75% for market rate, 100% for moderate income, rental units, and Whole Building projects
Pre-weatherization barrier evaluation	Barrier identified by Home Energy Assessment	Up to \$250
Pre-weatherization barrier remediation	Remediation of barrier in areas where proposed weatherization work is recommended or when barrier prevents any/all work from being completed	• Moderate income 100% through turnkey path • Rental units in designated equity communities 100% through turnkey path • All other rental units up to \$5,000/unit • Market-rate customer eligible to use HEAT Loan
Heat pumps (Turnkey delivery only)	In 2025-2027 for moderate income customers including renters By 2027 for all market-rate customers	• Moderate income 100% through turnkey path • Rental building units in designated equity communities 100% through turnkey path, where it does not increase energy burden • Market rate: see section 3.1.3 Residential Rebates
Pre-electrification barrier remediation (Turnkey delivery only)	Electrical panel upgrade necessary to support installation of heat pump	• Moderate income 100% through turnkey path • Rental building units in designated equity communities 100% through turnkey path, where it does not increase energy burden • Market-rate customer eligible to use HEAT Loan
Immediate savings measures	All customers receive a set of measures that are low-cost and a low-lift installation effort	100%
Programmable thermostats	Analog thermostat existing	100%

3.1.3 Residential Rebates

The Residential Rebates program provides a broad, integrated marketplace where energy-efficient products and equipment are positioned as attractive, primary choices for customers making purchasing decisions, whether online, in-store, or through independent contractors and distributors. The program offers education to help customers make informed decisions, incentives to make efficient choices more financially attractive, and training and support for the market actors, to help shift contractors toward more efficient, properly installed equipment.

One of the primary objectives of the Residential Rebates program is to encourage residential customers and plumbing, electrical, and HVAC contractors to electrify homes in Massachusetts while purchasing and installing the most efficient HVAC and water heating technologies. The program also seeks to ensure high-quality installations and encourage contractors to follow installation best practices by providing technical and programmatic support in addition to quality-focused post-installation inspections. A positive customer experience is a Plan priority and imperative to the program's success. The Program Administrators maintain a network of program-verified installers who perform quality installations and are well versed in the program eligibility requirements, program rules, and incentive levels. This network helps to create a positive customer experience. The PAs promote the program's HVAC incentives in conjunction with Residential Turnkey Solutions offers, such as weatherization. The program also offers enhanced incentives for moderate-income qualified customers, as defined by 61-to-80 percent of the greater of SMI and AMI.¹¹⁶

Program Design

The Residential Rebates program is comprised of eight subcomponents (see figure below).

Figure 27: Residential Rebates Program - Common Characteristic Subcomponents

No.	Measure Components	Description
Energy Efficiency Measure Components		
1	HVAC	This subcomponent provides rebates to customers for installing eligible heating and cooling measures in their home and also offers incentives to distributors and customers for the sale and installation of eligible HVAC controls.

¹¹⁶ Note that these rebate incentives are an alternative to the 100% offers available to these customers under the Residential Turnkey Solutions pathway described in the previous section.

No.	Measure Components	Description
2	Domestic hot water	This subcomponent offers incentives to customers via installing contractors and distribution channels for the sale and installation of eligible heat pump water heaters. This subcomponent also offers rebates directly to customers.
3	Products	This subcomponent makes incentives available through an Online Marketplace and also to customers for purchasing eligible energy-efficient products, including home appliances and equipment at retail stores. This offer provides incentives to customers through distributors for the sale of selected products.
4	Appliance recycling	This subcomponent provides rebates to customers for proactively recycling inefficient but operational products and appliances.
Education Components		
5	Customer education	This subcomponent includes Decarbonization Consultations and electrification advocate training. The PAs will offer no-cost comprehensive virtual Decarbonization Consultations to residential customers. See the Strategic Enhancements section below for more detail.
6	Contractor education and outreach	This subcomponent includes management and support of the HPIN, a network of HVAC contractors that deliver heat pump and heat pump water heater installations. Through the HPIN, the PAs provide a wide range of resources and services, including exclusive access to residential rebates and financing for heat pump installations, training, marketing materials, sales tools, and periodic communications about important news and developments.
Income-based Components		
7	Enhanced heat pump incentives	This subcomponent includes enhanced heat pump incentives for moderate-income qualified customers. Qualified moderate-income customers are eligible for no-cost heat pump installation through the Residential Turnkey Solutions program. If a customer does not want to take advantage of the turnkey installation, they are eligible for enhanced heat pump incentives through the Residential Rebates program.
Quality Control Components		
8	QA/QC	The QA/QC subcomponent includes post-installation inspections. To maintain the integrity of the Residential Rebates program and be responsible stewards of customer funds, it is imperative that the PAs have a robust third-party QA/QC inspection process. Program participants are selected at random for third-party inspections. The percentage of projects randomly selected for inspection is based on incentive levels. The third-party vendor conducts onsite or virtual inspections of all equipment listed on the rebate form to verify that existing conditions meet all rebate requirements. The vendor also assesses the installation for best practices and tracks results so the PAs can provide feedback to HPIN contractors. Post-installation inspections may also help gauge customer satisfaction, cross-promote other programs, and/or offers, and collect participant feedback to be shared with the PAs.

Implementation / Delivery Pathways

Customers can access incentives via four different delivery pathways—Downstream, Midstream, Online Marketplace, and Instant In-store Discount.

- **Downstream.** The customer applies for an incentive after the measure is installed, purchased, or recycled. The PAs offer select measures that are part of the Products, HVAC, and Appliance Recycling subcomponents via the Downstream pathway.
- **Midstream.** The PS administer the incentive at the distributor level for the sale of eligible measures. Depending on the measure, the PAs require that the distributor pass the rebate through to the customer in the form of a discount on their invoice. The PAs offer select measures that are part of the Products, HVAC, and Domestic Hot Water subcomponents via the Midstream pathway.
- **Online Marketplace.** The incentive is applied at the point of purchase on the Mass Save Online Marketplace. The PAs offer select measures that are part of the Products, HVAC, and Domestic Hot Water subcomponents via the Online Marketplace pathway.
- **Instant In-store Discount.** Incentive is applied for eligible measures at the point of purchase at participating retailers. Customers can fill out a brief online form to receive a QR code that they present at the point of purchase. The PAs offer select measures that are part of the Products, HVAC, and Domestic Hot Water subcomponents via the Instant In-store Discount pathway.

Program Eligibility Requirements

To be eligible for the Residential Rebates program, customers must hold an active, residential electric or natural gas utility account with one of the PAs. Customers who reside in municipal electric towns must heat their home with natural gas from one of the Program Administrators to be eligible. Please note that low-use natural gas accounts do not qualify for Tier 2 or Tier 3 heat pump rebates. There are additional eligibility requirements that vary by measure. As stated above, the program offers rebates for a variety of energy-efficient measures. These include HVAC, domestic hot water, products, appliances, and appliance recycling. See Appendix I: Description of Measures for a detailed description of each measure offered.

Program Barriers

The Program Administrators designed the Residential Rebates program to overcome a variety of barriers to heat pump adoption, which include high upfront cost, lack of customer awareness, lack of willingness to pair with weatherization, operating costs, and contractor concerns. The PAs designed the incentives to lower the

cost to the customer of purchasing and/or installing energy-efficient and program-eligible HVAC, domestic hot water, and products measures and instant In-store Discount and Online Marketplace pathways are designed to lower the upfront cost to the customer.

To address lack of customer awareness and confidence in electrification measures such as heat pumps and heat pump water heaters, such as unfamiliarity with heat pump operation, performance in extreme cold temperatures, and their benefits, the program will provide education and guidance to customers at any point of their decarbonization journey. As previously mentioned, the PAs will offer no-cost virtual Decarbonization Consultations and electrification advocate training. The PAs will also provide detailed information about energy-efficient measures on MassSave.com. Ensuring use of a heat pump system during the heating season is key to achieving GHG emission reduction goals. Educating customers and contractors is critical to overcoming the knowledge gap, building acceptance, and increasing adoption. To further ensure customers are using their heat pumps throughout the heating season, the PAs will also enforce a pre-existing heating system disablement requirement for whole-home heat pump installations and require customers to transition to a non-heating rate code with their gas PA.

Continued contractor concerns regarding the reliability and effectiveness of heat pumps and heat pump water heater measures are also a barrier. As described above, the PAs are addressing this barrier through the HPIN, which will continue to provide a wide range of resources and services, including exclusive access to residential rebates and financing for heat pump installations, training, marketing materials, sales tools, and regular communications about important news and developments. Another way the PAs will seek to address this barrier is the continuation of robust heat pump rebates. The PAs designed these rebates not only to encourage customers to install heat pumps, but because they are also a powerful sales tool for contractors. Robust rebates and a dedicated network of heat pump installers will help to transform the HVAC contractor community into heat pump champions.

Another barrier is customer willingness to undertake weatherization prior to installing their heat pump. To address this barrier, the PAs will continue to require the demonstration of sufficient weatherization to be eligible for the whole-home heat pump rebate. Sufficient weatherization can be demonstrated by satisfying at least one of the following requirements: (1) the home was built during or after 2000, (2) the decarbonization assessment report indicates less than \$1,000 worth of weatherization recommended, or (3) the weatherization recommendations made since 2013 have been completed. While the PAs do not require weatherization to access the partial home heat pump rebate, the PAs will offer customers a \$500 bonus to weatherize prior to their partial home heat pump installation.

The PAs will also continue to educate customers and contractors about the importance of weatherization to a successful heat pump installation. Customers already engaged with an HPIN contractor will benefit from HPIN/IIC partnerships, which can result in a Direct Weatherization project coordinated around the heat pump install, and from the availability of virtual HEAs to enable access to weatherization assessment services from the comfort of their home. Customers seeking to install weatherization and heat pumps who are looking for a more facilitated experience will eventually be able to participate in an optional Turnkey pathway, which will eliminate the need for customers to navigate two different pathways on their own.

The cost to operate a heat pump system has the potential to be a barrier to technology adoption and while there are factors that are outside customer and contractor control such as electric rates, there are actions they can take to ensure the heat pump system is operating as efficiently as possible. These actions include ensuring a home is sufficiently weatherized, ensuring the system is sized correctly, regular maintenance, and understanding how to operate a heat pump system. As described above, the PAs will continue to educate contractors and customers about the importance of weatherization in addition to maintaining specific weatherization requirements to be eligible for heat pump rebates. Contractor education regarding system sizing will continue to be a focus of HPIN training courses. Post-installation customer education highlighting the importance of regular heat pump system maintenance and proper operation will help it perform at peak efficiency. Finally, the PAs offer tools such as Decarbonization Consultations and the Heating Comparison Calculator to help educate customers about the operating costs of heat pumps in comparison to other heating systems, which can help to set expectations.

How the Program Addresses Plan Priorities

The three Plan priorities, which include equity, decarbonization, and improved customer experience, are all at the core of the Residential Rebates program design. The PAs are dedicated to enabling customers of all socioeconomic backgrounds access to the benefits of energy efficiency and decarbonization and to providing them with a seamless experience. As described in section 3.1.2 Residential Turnkey Solutions, all income-qualified moderate-income customers and renters in designated equity communities¹¹⁷ can participate in a Turnkey pathway, which offers a single point of contact to assist them throughout their journey of receiving no cost weatherization, barrier mitigation, and heat pumps. Customers who choose not to participate in this turnkey pathway will still be able to participate via the open market Residential Rebates program, giving the

¹¹⁷ As noted above, these offers are available to renters in these communities where it will not increase their energy burden and the Landlord signs an agreement committing not to raise rent or evict their tenants as a result of the improvements.

customer a choice as to how “hands on” they want to be with their energy efficiency and electrification project. Other ways the Residential Rebates program seeks to improve customer experience are through the strategic enhancements described below. The PAs will introduce an optional pre-approval process for prospective heat pump installations, designed to improve customer experience. Pre-approval will provide customers with a level of assurance with respect to equipment eligibility and incentive level and will offer a touchpoint with the customer prior to installation to set expectations about how the PAs expect the customer to operate their heat pump system. See the Strategic Enhancements section below for more detail.

The creation of an Electrification Advocate Network and the associated training curriculum is aimed at building decarbonization awareness in local communities, including environmental justice communities. The goal of the Electrification Advocate Network is to build capacity from within communities to help residents adopt clean energy solutions, drive meaningful and sustained increase in heat pump + weatherization adoption rates in participating communities, and focus on creating equity in environmental justice communities and designated communities. See the Strategic Enhancements section below for more detail. Another way advocates will engage community members is to continue participating in community recycling events around Massachusetts, giving customers an opportunity to recycle their old dehumidifiers and engage in the Mass Save program.

Virtual Decarbonization Consultations will continue to be offered at no cost and are aimed at providing guidance to customers as they begin or continue their decarbonization journey. Decarbonization specialists will aid customers in project planning, quote review and comparison, and provide ongoing support throughout the customer’s journey. See the Strategic Enhancements section below for more detail. The PAs will also continue managing the HPIN, which helps to ensure heat pump installers are adequately trained to perform quality heat pump installations and understand program rules and requirements. Nurturing this network of heat pump installers is integral in meeting decarbonization goals.

Strategic Enhancements

Enhancement #1: Continue to invest in an improved rebate processing experience

The PAs process approximately 300,000 rebates annually for commercial and residential customers. To support this demand and create a faster rebate process, the PAs engaged a new rebate processing vendor on July 1, 2023, and have worked diligently to onboard them and continually improve the process. The PAs understand the significant challenges and frustration customers experienced related to rebate processing delays during the 2022-2024 term and have worked to eliminate these delays and improve the customer experience.

Enhancement #2: Other rebate processing enhancements

The PAs will continue to work with their rebate processing vendor to further reduce the number of applications with missing information via enhancements to the online submission process and proactive outreach, including text alerts, to affected customers in addition to the existing automated notifications customers already receive. The rebate processor will roll out a reporting tool to the PAs that will provide increased visibility into rebates status, including common reasons for non-compliant applications, which will help PAs to better assess the rebate application processes, clarify program requirements, and implement other improvements that will provide a better customer experience.

The PAs will collaborate with the rebate vendor to provide customers with improved visibility on rebate status, next steps, and expectations. The PAs are investigating with their rebate processing vendor other ways to expedite payment to customers, such as the potential offering of printing checks at home. Additionally, the Program Administrators have implemented automated clearing house (“ACH”) payments for the direct-to-contractor rebate pathway, allowing rebates to be electronically transferred into contractor bank accounts. The PAs will continue to maintain increased staffing levels at the rebate processing vendors to ensure that resources are available to meet these needs. Finally, the PAs are also working to optimize and reduce the time required for inspections, while ensuring appropriate levels of post-installation review.

Enhancement #3: Enhance customer education

The PAs recognize the need to continue and enhance customer education as it pertains to electrification. As such, the PAs will continue to offer no-cost comprehensive virtual Decarbonization Consultations to residential customers. The PAs will work to refine and build upon the success of Decarbonization Consultations to ensure appointment times are conducive to customer availability and opportunities in specific customer scenarios, such as renters vs owners and multi-family vs single family dwelling units, can be discussed in depth. There are four primary components of virtual Decarbonization Consultations.

- **Project planning.** Decarbonization specialists will work directly with customers to identify short and long-term decarbonization goals, set realistic expectations, and direct customers to participating HPIN contractors.
- **Quote review and comparison.** Heat pump quote comparison review, which is meant to assist customers in understanding differences between solutions proposed by contractors, will be part of Decarbonization Consultations. Quote comparison services will enable customers to compare costs, equipment, efficiency, and GHG emissions impact of multiple heat pump quotes.

- **Continued assistance.** Through these personalized consultations, customers will be offered ongoing support and actionable customer education that prepares them to confidently adopt the best solutions for their needs. Decarbonization Consultations will be available at any point in the customer journey, including providing operational/user tips to customers post-installation as needed.
- **Summary reports and surveys.** After the consultation, a personalized summary report email will be sent to the customer so that they have a reminder of the conversation for when they talk to contractors. Customers will also receive satisfaction surveys to help inform program design and analyze program effectiveness. The PAs will also provide electrification advocate support by establishing a network of “electrification advocates” who will be trained to build electrification awareness in local communities. There are three primary components of electrification advocate support.
 - *Webinars and outreach.* The PAs will build electrification program awareness with educational webinars to end-use residential customers. The PAs will also engage and support local communities and organizations who manage volunteer and coaching programs.
 - *Local advocacy training.* The PAs will develop comprehensive training courses that can be given in-person or virtually to community advocates (also known as “champions” or “coaches”). Trainings will consist of comprehensive courses that can be attended in person or virtually and will provide technical information (e.g., basic building science, best practices on heat pump design and installation), industry insights, and important soft skills for working with homeowners and contractors to achieve positive outcomes. Training will seek to build capacity from within communities to help residents adopt clean energy solutions, drive meaningful and sustained increases in heat pump and weatherization adoption rates in participating communities, and focus on creating equity in environmental justice communities and designated communities.
 - *Ongoing advocate engagement.* Once Decarbonization Consultations have been completed, a process will be developed/standardized to refer customers to community advocates that have received advocacy training and have installed decarbonization measures (e.g., weatherization, heat pumps, heat pump water heaters)/experienced the process firsthand). There will be monthly check-ins for local advocates either in-person or virtually.

Enhancement #4: Provide an optional pre-approval of residential heat pump projects

In the 2025-2027 term, the PAs will continue to improve the quality and completeness of submitted applications by creating an optional pre-approval step for customers pursuing both whole-home and partial-home heat pump rebates. This pre-approval option is designed to help ensure customers understand and comply with each of the required components for successfully securing a rebate prior to installation and submission of an application form. Pre-approval will be managed through an online portal that will allow customers/contractors to input required information about their planned heat pump installation. By doing this, customers and contractors will be provided with a level of assurance that their heat pump model(s) are eligible for the program and will have greater certainty on the incentive level they can expect to receive. In order to receive a rebate, the PAs will still require customers and/or contractors to submit their application after the heat pump system has been installed. By pre-approving their planned heat pump project, the Program Administrators can clarify expectations and program requirements prior to installation.

Pre-approval will also benefit the PAs by providing an additional customer touchpoint to identify and target weatherization opportunities and guide customers towards income-based offers and the optional Turnkey Heat Pump pathway as appropriate. The PAs will also have increased visibility into the heat pump project pipeline, which is integral to managing program budgets.

Enhancement #5: Make modifications to the heat pump incentive structure

The PAs have made several modifications to the heat pump incentive structure for market-rate customers participating in the Residential Rebates program. First, the PAs have adopted a declining incentive structure over the term recognizing that as heat pumps become a more mainstream technology, it should not be necessary to provide large incentives to foster consumer adoption. These incentive reductions will help control costs and free up budget for other equity-related Plan priorities. Second, the PAs designed a three-tier incentive structure to better accommodate customers in different places on their heat pump journey and to encourage all customers to install a heat pump regardless of their situation. The first tier, Base Heat Pump Rebate, is designed to incentivize customers for installing heat pumps (1) in previously unconditioned spaces such as a basement or a three-season porch; (2) to replace an existing heat pump system; or (3) to replace a central air conditioning system.

The second tier, Hybrid Heat Pump Rebate, which offers a rebate for partial home heat pump installations, will continue to provide a \$500 weatherization bonus for customers who weatherize prior to or within six months of the installation. The PAs will also offer a \$500 full heating load bonus to encourage customers who are not

immediately ready to disconnect their pre-existing fossil fuel system to install a system sized to cover the home's heating load.

The third tier, Whole Home Heat Pump Rebate, offers an incentive to customers who install a heat pump to cover 90-120 percent of the home's heating load. To be eligible for this rebate, customers are required to demonstrate their home is sufficiently weatherized and disconnect their pre-existing heating system. The PAs are implementing an incentive dollar per ton cap for the Whole-Home Heat Pump Rebate tier, which is designed to prevent paying out disproportionately high incentives for smaller whole home heat pump systems. The PAs will ensure they place these customers on the correct rate code for their future energy consumption. This means that customers can be shifted or be eligible for an electric heating rate code for each Program Administrator, if applicable, once incentives are paid out. Additionally, customers who fully electrify and shift their heating consumption off of natural gas will be switched to the non-heating rate code with their gas PA. The PAs will notify customers about this anticipated shift when they complete their rebate forms and through other communications.

Enhancement #6: Incorporate language access recommendations to increase access for LOTE customers

During the 2022-2024 term, the PAs engaged with industry experts to help provide language access recommendations to support access for residential and small business customers. The PAs plan to incorporate relevant recommendations within the Residential Rebates program to support LOTE customers' access, understanding, and participation. Language access recommendations include a review of vital documents for translations, multilingual statewide contact center support services, and interpretation services for in-person visits. Continuity of translation services across PAs and vendors is also important to ensure customers have a seamless experience and are not missing key information about the program and their eligibility for incentives.

Enhancement #7: Differentiate the Heat Pump Installer Network

The PAs aim to make the HPIN and associated online HPIN lookup tool as useful to customers as possible. The PAs will therefore differentiate HPIN contractors using criteria that are beneficial to customers, including but not limited to, contractors that offer both weatherization and heat pump installation, either through their own company or partnerships with Independent Installation Contractors and HPCs. Other criteria the PAs considered include, but are not limited to the following:

- Offer instant incentives to customers by deducting the rebate amount from the customer invoice and applying for the rebate on their behalf.
- Provide rebate application support.
- High percentage of jobs that pass post-inspections.
- High number of installs in the program.
- Availability of bilingual staff to offer services in one more designated language.
- Complete and submit room by room Manual J load sizing calculations for all projects.
- Can provide electric panel upgrades.

Customers will be able to search for HPIN contractors using criteria that are of value to them to find a contractor that meets their specific needs.

Enhancement #8: Provide Customer Facing Tools to Promote Heat Pump Pricing Transparency

The PAs acknowledge the importance of creating heat pump pricing transparency, so customers are better informed when soliciting and reviewing heat pump installation quotes from HPIN contractors. The PAs will support price transparency in two ways. First, the PAs will create a public facing, geographically based heat pump pricing guide using anonymized data from program participants.¹¹⁸ This guide is meant to be a reference for customers as they solicit and review heat pump bids from HPIN contractors, so they have visibility into the average installation costs in the geographic area in which they reside and can better ensure that they receive competitive pricing. Second, the PAs will offer a quote comparison service through which customers will have access to specialists who will walk them through each bid they have received, so they are more educated when it comes time to decide which quote and HPIN contractor is the best fit for them.

Enhancement #9: Launch Online Heat Pump Water Heater Marketplace

The PAs will launch an online heat pump water heater (“HPWH”) marketplace service that will offer consumers multilingual educational content, instant rebates, and options for product delivery, pickup, or professional installation. Customers will be required to answer a series of automated online pre-screening questions that will accurately determine if the customer’s home characteristics are appropriate for the installation and use of

¹¹⁸ The PAs collect installation costs as part of the rebate process.

an HPWH. To the extent possible, optional installation services will be offered at a fixed cost. The online marketplace will also include a water heating comparison calculator that allows customers to compare heat pump water heater operating cost against other water heating options (e.g., storage, tankless, boiler w/tankless coil, boiler w/indirect tank) and fuel types.

Incentive Levels

Figure 28: Residential Rebates Program Incentive Levels

Measure	Criteria	Incentive Amount		
Tier 1 Air Source Heat Pump Rebate: Base Heat Pump Rebate	ENERGY STAR 6.1	\$250/ton		
Tier 2 Air Source Heat Pump Rebate: Hybrid Heat Pump Rebate; Partial home displacement of natural gas, oil, propane, or electric resistance	ENERGY STAR 6.1	<u>2025 Standard:</u> \$1,250/ton \$500 Wx bonus; \$500 full heating load bonus Enhanced \$16,000/dwelling unit	<u>2026 Standard:</u> \$1,125/ton \$500 Wx bonus; \$500 full heating load bonus Enhanced \$16,000/dwelling unit	<u>2027 Standard:</u> \$1,000/ton \$500 Wx bonus; \$500 full heating load bonus Enhanced \$16,000/dwelling unit
Tier 3 Air Source Heat Pump Rebate: Whole Home Rebate (includes air-to-water heat pumps); Full home displacement of natural gas, oil, propane, or electric resistance	ASHP: ENERGY STAR 6.1 Air-to-Water HP: Mass Save Qualified Products List	<u>2025 Standard:</u> \$3,000/ton up to \$10,000 Enhanced \$16,000/dwelling unit	<u>2026 Standard:</u> \$2,700/ton up to \$9,000 Enhanced \$16,000/dwelling unit	<u>2027 Standard:</u> \$2,500/ton up to \$8,000 Enhanced \$16,000/dwelling unit
Whole-home ground source heat pump displacing natural gas, oil, propane, or electric resistance	ENERGY STAR	<u>2025 Standard:</u> \$15,000 Enhanced: \$25,000/dwelling unit	<u>2026 Standard:</u> \$13,500 Enhanced: \$25,000/dwelling unit	<u>2027 Standard:</u> \$12,000 Enhanced: \$25,000/dwelling unit
Partial-home ground source heat pump displacing natural gas, oil, propane, or electric resistance	ENERGY STAR	Standard: \$2,000/dwelling unit Enhanced: \$25,000/dwelling unit		

Measure	Criteria	Incentive Amount
Integrated controls	Mass Save Qualified Products List	\$500/unit
Heat recovery ventilator		\$500/unit
Boiler reset control		\$225 (gas), \$100 (electric)
Electronically commutated motor pump		\$100/unit
Room-to-room response unit		\$75/unit
Smart thermostat	ENERGY STAR	\$100/unit
Programmable thermostat	7-Day programmable	\$25/unit
Heat pump water heater	ENERGY STAR certified UEF 3.30	\$750/unit
Heat pump water heater (120volt/15amp circuit)	ENERGY STAR certified UEF 2.20	\$750/unit
Split-system heat pump water heater	ENERGY STAR certified UEF 2.20	\$1,500/unit
Clothes dryer	ENERGY STAR	\$50/unit
Room air conditioner	ENERGY STAR	\$40/unit
Pool pump	ENERGY STAR	\$350/unit
Battery powered lawn mower	Battery powered	\$75/unit
Battery powered trimmer	Battery powered	\$30/unit
Battery powered chainsaw	Battery powered	\$30/unit
Battery powered blower	Battery powered	\$30/unit
Low-flow showerhead	Max flow rate between 1.5 and 1.7 GPM	\$15/unit
Low-flow showerhead with thermostatic valve	Low-flow showerhead (1.7 GPM) with integrated thermostatically actuated valve	\$15/unit
Thermostatic valve	Standalone thermostatic shut-off valve	\$15/unit
ENERGY STAR electric stove	ENERGY STAR	Induction: \$500/unit Radiant: \$250/unit

Measure	Criteria	Incentive Amount
Clothes washer	ENERGY STAR, Pre-existing clothes washer must be in working condition	\$150/unit
Refrigerator recycling	Working condition	\$75/unit
Freezer recycling	Working condition	\$75/unit
Dehumidifier recycling	Working condition	\$30/unit
Heat pump dryer	ENERGY STAR Most Efficient Certified	\$200/unit
Window	ENERGY STAR certified for the Northern Region and on the "Most Efficient" list	\$75/window

3.1.4 Residential ConnectedSolutions

ConnectedSolutions refers to the PAs' suite of ADR offerings in both sectors, which is also commonly referred to as demand response, load flexibility, or a virtual power plant. The ConnectedSolutions program aims to reduce system peak load by temporarily controlling behind-the-meter technologies owned and controlled by both residential and commercial customers in response to event signals from the PAs, thus reducing the grid's load. The PAs reach residential customers through connected device manufacturers to reduce demand during periods of peak system demand. The ConnectedSolutions program provides system benefits by actively reducing the installed capacity requirement (calculated through regression by ISO-NE), transmission, and distribution costs that are borne by all customers.

Currently, residential and low-income customers can participate in ConnectedSolutions offerings by enrolling their communicating thermostat connected to central cooling devices, either air conditioning or heat pumps, and/or by allowing the PAs to discharge their battery during peak times. The program is designed to reward participants for allowing the PAs to make small adjustments to their temperature setpoints to reduce their electricity demand during times of system peak demand. Likewise, qualified batteries are dispatched during times of peak demand, with events called more frequently due to the fact that customer comfort is not impacted by dispatching the batteries.

Program Design

ConnectedSolutions provides incentives to customers to enroll eligible equipment in the program. Once residential or low-income customers are enrolled, the PAs, through their distributed energy resource management system (“DERMS”) provider(s), will send signals to a customer’s equipment to reduce consumption or discharge during peak periods. Eligible technologies in the Residential sector include:

- Wi-Fi enabled thermostats connected to central air conditioners or heat pumps.
- Behind-the-meter energy storage (batteries).

To participate in ConnectedSolutions, a customer must own an eligible communicating device connected to an active PA electric account. This eligibility is based on whether the technology is included in the offering (*e.g.*, thermostats connected to central air conditioning or heat pumps and batteries connected to homes and which are located behind the meter) and whether the device manufacturer is participating in the offering. In addition, enrolled devices must be able to integrate with the PAs’ DERMS vendor(s) to assist the PAs in enrolling, communicating with, dispatching signals to, and collecting data from these devices.

The PAs continue to offer an energy efficiency incentive for a customer to purchase a communicating thermostat, an annual incentive for thermostats, and a performance-based incentive for batteries that participate during called ADR events. Customers can override these signals and choose not to participate; however, for those participating with storage, opting out may impact their average performance over the course of the performance period and therefore affect the level of incentive they receive. There are no penalties for non-performance.

Central air conditioning represents one of the largest controllable loads in residential homes and use of air conditioning coincides with ISO-NE system peaks, making it an ideal end use for ADR programs. By adjusting the temperature settings on a connected thermostat during peak periods, the PAs can deliver substantial reductions in demand. Several management strategies, such as setting a maximum temperature and pre-cooling, can help maximize savings delivered across a portfolio of connected thermostats while maintaining comfort and safety. The increasing customer adoption of both connected thermostats and central air conditioning (including heat pumps) make this a key area of continued growth for ADR and demonstrates how efficiency, decarbonization, and ADR programs complement each other.

Battery storage is also an ideal candidate for ADR. A majority of batteries are attached to photovoltaic systems and currently there are no demand charges on residential customers, meaning there is little incentive for

customers to charge and discharge their battery during normal operations.¹¹⁹ Currently, this results in valuable but otherwise underutilized assets that are typically only providing backup power during an outage. By enrolling residential batteries in the ConnectedSolutions program, the PAs can send dispatch signals that cause batteries to discharge, which offsets the customer's load and sends power back to the grid during peak periods, providing a valuable benefit.

Further, unlike adjusting thermostat settings, there are no direct impacts to customer comfort or convenience when controlling a battery (unless there happens to be an outage during or just after an event, in which case the customer could opt-out of participation). Behind-the-meter residential batteries can deliver substantial demand reductions compared to the demand reductions from communicating thermostats, and the PAs expect continued growth in residential storage installations and enrollment of batteries in the ConnectedSolutions program.¹²⁰ The PAs expect the external funding sourced through the Generac grant (described in section 2.2.7: Cost Recovery, Funding Sources, and Bill Impacts), will dramatically increase the number of communicating devices able to participate in the ConnectedSolutions program among low- and moderate-income customers. Under the Generac grant, approximately 800 batteries are projected to be deployed primarily to low- and some moderate-income customers over the term, and another 1,200 batteries are scheduled for deployment to these customer groups in the following term.

To encourage the system designs that can maximize the reduction of grid loads at peak times, encourage customers to maintain an internet connection to their battery storage system, and to account for various battery storage system sizes, the ConnectedSolutions program offers customers who have enrolled batteries the ability to earn a pay-for-performance incentive. The rate of this incentive (\$/kW-average performance per year) is locked for the first five years of participation to give customers enough certainty to undertake the upfront cost and effort of a battery installation. A 2024 M&V study examined the value of the rate lock, finding that 31% of customers rated the lock as critical or very important to their purchase decision. Based on this data point, the study recommended that the PAs continue to offer the rate lock to new ConnectedSolutions participants.¹²¹ Customers are also eligible to apply for a HEAT Loan for the cost of the battery storage system.

¹¹⁹ Should residential time-of-use ("TOU") rates become an option after AMI has been widely deployed, customers may have financial motivation beyond ConnectedSolutions dispatches to charge/discharge their batteries at certain times and the PAs may have to reassess this resource type.

¹²⁰ Unitil will continue to monitor the other PAs' residential storage efforts to determine if an offering of this type is warranted for its unique service territory.

¹²¹ Guidehouse Inc. "[Massachusetts Residential Energy Storage Demand Reduction Offering Evaluation](#)." Mar. 2024. p. 36.

Most customers learn about and enroll in the PAs' ADR offerings through their device's original equipment manufacturers ("OEMs") or their installation contractors. For instance, many customers installing communicating thermostats controlling central air conditioning are prompted to sign up for ConnectedSolutions while they are setting up their device, via an email or in-app notification from the thermostat manufacturer. Follow-up messaging can occur through the device itself or through communications from the OEM to the customer. The PAs have found this to be an effective means of reaching and enrolling customers. In the case of battery storage, most customers learn about the ConnectedSolutions program from their installer. The PAs also market outside of these pathways but have found manufacturer and installer outreach to be the most effective. With the passage of the IRA, residential standalone storage is now eligible for tax benefits even if they do not install solar under the Residential Clean Energy Credit, I.R.C. Section 25D, and the PAs have updated MassSave.com to provide customers interested in battery storage with information on the availability of tax credits.

ConnectedSolutions program offerings are implemented through a PA's DERMS vendor(s). The DERMS vendor establishes integrations with the manufacturer of the equipment, or, in instances of some storage technologies, the system integrator, or operator. This allows the DERMS to connect to customer equipment to reduce demand during peak events, without the customer needing to take any action. While the PAs prefer that manufacturers integrate with the PAs' DERMS vendor(s) when they begin participating in the program, not all manufacturers are willing or able to complete this process. Since there is a cost to the PAs or the DERMS vendor(s) associated with enrolling a manufacturer's device, projected market share of a manufacturer's device is considered. The PAs also note that EV Managed Charging is no longer offered within the ConnectedSolutions program.¹²²

Program Barriers

The ConnectedSolutions program has experienced continued growth since its launch in 2019. Since the program was established, the PAs have endeavored to improve the customer experience, expand the number of eligible OEM communicating devices, and better integrate with the portfolio of efficiency and

¹²² EV Make Ready and managed charging program incentives for Eversource, National Grid, and Unitil are addressed in DPU dockets 21-90, 21-91, and 21-92, respectively. National Grid currently offers an off-peak incentive program that compensates customers for charging their EVs during off-peak times, defined as 9 PM to 1PM. This time period incorporates the demand response event window of 3 PM to 8 PM.

decarbonization offerings for customers. However, ADR programs have limitations and barriers to ubiquitous customer eligibility and participation. Some include the following:

- Accessibility for low-income customers remains a challenge. Stable Wi-Fi internet connection and control of central cooling equipment or the installation of a battery storage system is required for customers to participate in the program.
- Landlords may not be willing to install smart technology in rental properties over concerns that smart thermostats may be more difficult for renters to operate. There is also the issue of who the incentive should go to, given that the landlord owns the device and property, but the renter would be directly experiencing the change in temperature and is likely paying the electricity bill. Currently, incentives are sent to the electric account owner.
- Behind-the-meter battery storage, despite recent cost declines, is an expensive technology to purchase and install.

How the Program Addresses Plan Priorities

The program impacts equity, decarbonization, and improved customer experience. First, by lowering the ISO-NE system peak, overall costs are reduced for all electric customers and residential and low- and moderate-income customers who are participating in the program receive direct benefits through the incentives provided by the program. In addition, reducing the ISO-NE peak results in fewer carbon-intensive power plants from being called upon to meet demand, which directly reduces carbon emissions during the peak periods over the entire system. As climate change becomes more of a top-of-mind concern for customers, bringing them into programs that help reduce emissions provides them with a positive experience. The PAs may work to quantify the GHG savings from ConnectedSolutions for inclusion in a future AESC study. Lastly, the program is one of the few incentive streams available to customers to earn any sort of return on investment for using some capabilities of behind-the-meter battery storage, making substantial customer investment pencil out in some cases.

Strategic Enhancements

Enhancement #1: Continued enrollment growth and availability for more customers

The PAs are planning for growth in the number of enrolled and participating customers as well as in total demand reductions. As mentioned above, the cross-promotion across many of the Residential sector programs increases the opportunities for enrollment of new customers and the continued emphasis on heat pumps will

lead to more controllable equipment coincident with the current system peak periods for the PAs to target and recruit. The PAs expect the external funding sourced through the Generac grant (described in section 2.2.7: Cost Recovery, Funding Sources, and Bill Impacts), will dramatically increase the number of communicating devices able to participate in the ConnectedSolutions program among low- and moderate-income customers.

Enhancement #2: Expand eligible communicating devices to appeal to more customers, including low and moderate income

Recent preliminary screening of new direct load control measures for communicating window air conditioning units, heat pumps, and electric water heaters have shown initial promise for the following reasons:

- OEMs include on-board communication capabilities on equipment and have developed application-based customer-facing portals for control.
- Efficiency programs could incentivize the installation of communicating equipment on an energy savings basis, if cost effective; this is similar to the synergies that exist presently for communicating thermostats, which receive an upfront energy efficiency incentive for initial purchase and installation and can then be followed up with ConnectedSolutions ADR recruitment.
- Lower price points for equipment may mean more low- and moderate-income housing customers have access to them in their living spaces.
- Similarities with existing ConnectedSolutions direct load control offerings.

The PAs will continue exploring cost-effective opportunities to support these devices through discussions with OEMs and DERMS vendors. If any such opportunities are identified, the PAs will follow standard procedures for introducing these new measures or supporting these devices through existing measure offerings, as appropriate. Enhancement #3: Continued exploration of cost-effective strategies for gas and winter electric demand reduction and effective use of future AMI capabilities

ISO-NE and the electric distribution companies' long-term forecasts indicate that the system will transition from a summer peaking system to a winter peaking system within the next 10 years. The gas system is also winter peaking. The PAs will continue to work with EEA and ISO-NE and continue to follow Electric Sector

Modernization Plan and Climate Compliance Plan developments, to identify cost-effective strategies for statewide offerings for gas and winter electric demand reduction.^{123,124}

The electric distribution companies (“EDCs”) are undertaking widescale AMI deployment during the 2025-2027 term. The PAs anticipate future AMI capability will allow the ConnectedSolutions program to offer different program designs to incent customers to reduce demand during system peak times, however, the exact capability and the precise numbers of customers are not yet known, with varying schedules among different EDCs. During the 2025-2027 term, the PAs anticipate they may have the capability to run whole-home or whole-small business technology-neutral performance-based ADR offerings, instead of or in addition to device-specific offerings currently included in the program. If any novel program designs are identified, the PAs will propose a demonstration following the current DPU guidance on demonstrations, as detailed in section 7: Research, Development, and Demonstration.

Enhancement #4: Increased incentive for income-eligible customers on a low-income electric rate

As mentioned above, there are unique challenges for income-eligible customers to participate in the thermostat-based demand response measure. To partially address these challenges, the PAs will offer income-eligible customers on a low-income rate a higher enrollment incentive than market-rate customers.

Enhancement #5: Leveraging thermostat manufacturer native offerings for load reduction

Several major thermostat OEMs that allow customers to participate in ConnectedSolutions also allow customers to opt-in to settings that optimize customers’ thermostats around different parameters, such as when marginal operating emission rates are high, when the grid is at peak loading, or when there is a solar eclipse depressing solar generation. A higher proportion of customers opt-in to these OEM-driven offers than traditional utility demand response programs, like ConnectedSolutions. The PAs think there is value to collaborating with OEMs and the PAs’ DERMS vendor(s) to incorporate these native OEM offers into the ADR portfolio. While the temperature offsets and associated curtailment per device allowed in the OEM offers are lower, the cumulative effect could be significant considering the large number of customers already enrolled.

¹²³ Eversource, in compliance with the EGMA settlement and not a part of the three-year plans, is running gas demand response pilots/demonstrations using communicating thermostats and customer behavior appeals. Eversource regularly shares the experience and findings of these offerings with the other PAs.

¹²⁴ The PAs ran a limited C&I winter electric demand reduction offering during 2019-2020 while trying to ascertain the potential cost-effectiveness of such an offering. The PAs recruited roughly 50MW with 15MW of that total being diesel generators. The offering was ultimately shut down due to a lack of cost effectiveness.

The PAs also see this as a customer on-ramp to enable greater participation in the full ConnectedSolutions thermostat program. Some of the PAs may look to use customers enrolled in the OEM native offerings to increase load reductions.

Incentive Levels

Figure 29: Residential ConnectedSolutions Program Incentive Levels

Measure	Criteria	Incentive Amount
Communicating thermostat	Communicating thermostat connected to central air conditioner unit or heat pump unit	<u>Market-based Rate Customers</u> \$50 enrollment (one time) / \$20 performance-based (annually) <u>Income-eligible Low-Income Rate Customers</u> \$100 enrollment (one time) / \$20 performance-based (annually)
Battery storage	Behind-the-meter battery storage system < 50kW	\$275/kW average performance

3.1.5 Residential Education

The objective of the Residential Education program is threefold: (1) to offer K-12+ educational outreach programs, (2) to offer technical training and industry certifications to high school students to encourage careers in the energy efficiency and clean energy industry, and (3) to enhance consumer education and marketing strategies to help increase awareness of the benefits of energy efficiency and decarbonization, thereby encouraging greater participation in Mass Save programs.

Through the program, the PAs provide educators, students, and residents with Mass Save program information, curriculum, and materials on energy efficiency, sustainability, decarbonization, energy conservation, and efficient technologies as well as to create awareness around clean energy career opportunities. The Residential Education program also offers support for undertaking industry training and certifications focusing on green jobs to students in high schools across Massachusetts. This support is a critical component in fostering customer engagement and creating knowledge in the communities around energy efficiency, decarbonization, and Mass Save program benefits.

The PAs collaborate to offer energy efficiency curriculum and training to Massachusetts educators. Educators receive ongoing support for implementing energy efficiency and decarbonization programming in the classroom. Curriculum enhancements during the 2025-2027 term will include expanding career exploration starting in the middle school grades, technical training, and industry certification opportunities for both high school students and educators. In addition, efforts directed at consumers will focus on educating customers on the benefits of investing in decarbonization and energy-efficient products and services available to them through Mass Save. Consumer education will be available in various languages that are widely spoken across Massachusetts in addition to English, namely Spanish, Portuguese, Haitian-Creole, Mandarin, and Cantonese.

The PAs will also continue to focus this program on environmental justice communities and equity populations such as low-income customers, renters, and LOTE customers. The PAs market these customers first and often by various means. The program's vendor invites these schools, via emails, calls, and in-person visits, to participate in the Residential Education program offers. Participation in the Residential Education program is available to all educators, school districts, students, and customers in participating PA territories.

Program Design

Residential Education program offerings are available to all educators, students, and families through Massachusetts K-12 schools and technical high schools. Locations vary depending upon the specifics of the offer and are available across the state. Additional outreach to environmental justice and designated equity communities is a priority.

Program Offerings

The Residential Education program reaches students, community-based organizations, and educators through a variety of channels. Educator resources include workshops and curriculum on various energy efficiency, decarbonization, and sustainability topics, as well as career development. There is an array of curricula on all topics of energy that is available to educators to use too.

Professional development workshops for educators

The PAs support six to eight professional development workshops offered in different areas of Massachusetts to effectively accommodate educators from across the Commonwealth. There are two to three virtual workshops offered per year as well, at least one on a Saturday, to reach educators who cannot attend the in-person workshops. In addition to the school year workshops, the PAs currently offer a three-day summer workshop to Massachusetts educators. Educators are encouraged to apply early as the summer workshop has

a limited number of spots. The summer workshop is more in-depth and offers educators a chance to learn more about a particular subject area. Educators are provided with kits and materials to implement lessons in their classrooms and receive professional development credits/continuing education credits.

Career exploration workshops

These workshops are available to all middle school and high school educators and students and are designed to introduce them to careers in the energy efficiency and clean energy industry and what education, skills, and certifications are needed to qualify for these careers. Various speakers from the PAs' vendors and industry partners address the students and activities related to the career are conducted with the students. The PAs have also developed a Careers in Energy Efficiency and Green Jobs booklet that outlines different careers in this industry and what education, or certifications are needed to qualify for the job.

Student workshops

Resources for students include science fair project ideas, energy information and resource guides, and youth participation and leadership opportunities. In addition to the resources, the PAs use hands-on, interactive exhibits and games at community events in their service territories to further engage K-12 students and customers.

Massachusetts Green STEP (Sustainable Technical Education Program)

The MA Green STEP provides each participating school with trainers to teach and administer the program's certifications and technical training. The PAs work with each school and trade to provide the certifications and technical training that will best meet the needs of the students. Certifications can include, but are not limited to:

- Urban Green Council GPRO (Green Building Professional) Fundamentals of Building Green
- Building Performance Institute ("BPI") Building Science Principles
- BPI Health Housing Principles
- BPI Building Analyst Technician
- BPI Infiltration Duct Leakage
- US Green Building Council Leader in Energy and Environmental Design Green Associate
- RESNET – Home Energy Rating System Professional Rate

Technical trainings can include, but are not limited to:

- Weatherization and blower door hands-on training
- Duct blasting and duct sealing hands-on training
- Heat pump, heat pump water heater, and geothermal hands-on training

The program will facilitate career fairs with vendors who are looking for employees in the energy efficiency and sustainability sector on an annual basis. The Residential Education program will try and partner with other career fairs at the school and bring in vendors in the area. The program is currently reaching out and securing school participation for the 2024-2025 school year and will expand in future years. MA Green STEP will also work with the Clean Energy Pathways program to promote both offerings and provide a pipeline for interested students to enter the program.

Strategic Enhancements

The PAs are committed to continuous improvement and updates to the Residential Education program and to build upon past successes. The program continues to complement what educators are currently teaching and provide relevant energy education curriculum and training that is not available to educators. During the 2025-2027 term, the PAs will deploy the following strategic enhancements and updates to the program.

Enhancement #1: Enhanced focus on reaching school districts and students where there is a lower-than-average participation in the PAs' programs and in environmental justice communities

The PAs will encourage school districts to participate in workshops as a district and not on a teacher-by-teacher basis so that all educators and students receive the same opportunities and programs in each district. Securing buy-in from a district superintendent and requiring participation in the workshops ensures that all students receive the same opportunities.

In support of the PAs continued focus on equitable services, outreach will be focused and increased to schools in environmental justice communities, as well as those communities identified with lower-than-average historical participation in the Mass Save programs. The PAs will achieve this through broader outreach to these communities with telephone calls, emails, social media, and in-person visits to schools to inform them regarding what Mass Save has to offer their schools. The program will also seek out champion teachers in these districts who have participated in the Mass Save programs and ask them to be an advocate to encourage

district participation. Individual teachers or schools will also have the opportunity to participate in the PAs' offerings regardless of whether their school district participates.

Enhancement #2: Expand MA Green STEP

The PAs will support industry training and certifications in high schools with an enhanced focus on technical high schools. This new initiative was launched in the 2023-2024 school year as MA Green STEP and will be expanded in the 2025-2027 term. MA Green STEP offers training and industry certifications to educators as well as students to better prepare them for careers in energy efficiency upon graduation.

The PAs will collaborate with their vendor network to support trainings offered through this program and facilitate a hiring pipeline for the students by encouraging vendors to participate in a career fair organized through MA Green STEP held annually in the spring. The career fair will also offer soft skills training to prepare students for interviews. This school year, MA Green STEP will be offered to Massachusetts technical high schools; however, the program will be expanded to all Massachusetts high schools with the addition of after school and summer program offerings in future years.

Enhancement #3: Create a pipeline for the Clean Energy Pathways program

Students participating in MA Green STEP are excellent candidates for the Clean Energy Pathways program. MA Green STEP prepares students to participate in the internship program focusing on hands-on training and can lead to long-term employment opportunities in the weatherization and HVAC industry. The Clean Energy Pathways program will be promoted to MA Green STEP participants and assistance provided for those interested in engaging and applying. The PAs hope this conduit will further boost participation in the Clean Energy Pathways program, supporting the development of a robust clean energy workforce.

Enhancement #4: Promote career development for clean energy and energy efficiency jobs

The program offers professional development and student workshops on careers in the energy efficiency and clean energy industry to middle school, high school, and post-high school educators and students. Additionally, in the 2025-2027 term, all educator professional development starting with Grade 1 will include information on these job sectors and how the educators can incorporate introducing these careers into their lessons. This will introduce students at a younger age to opportunities available to them later in life.

3.2 Low-Income Sector

For the Low-Income sector, the PAs provide a comprehensive set of energy efficiency services designed to enable low-income residential customers to pursue improvements to their homes that reduce their energy burden and environmental impact. Ensuring access to program benefits for low-income customers has been a core focus of the Low-Income sector since its inception. The Low-Income program is structured around the PAs' partnership with LEAN, the group of local CAP agencies delivering low-income energy services in Massachusetts and is designed to leverage federal Low-Income Home Energy Assistance Program ("LIHEAP"), WAP, and HEARTWAP funding and to blend that funding with the Mass Save program funds to maintain sector-level cost effectiveness. In Massachusetts, the EOHLC administers these federal programs, who works closely with the PAs and LEAN to maintain effective implementation offerings.

Since 2010, the PAs have invested over \$1.1 billion dollars working with more than 470,000 low-income customers, including a record \$350 million in combined electric and natural gas investment for low-income customers during the 2022-2024 term. During 2022 and 2023, the program weatherized approximately 20,000 low-income housing units and installed heat pumps in over 3,600 low-income households.

In 2025-2027, the PAs and LEAN are committing to installing more than 16,000 heat pumps through the Low-Income program, with a prioritized focus on customers heating with delivered fuels and electric resistance. This target represents approximately 50 percent year-over-year growth in low-income heat pump installations during the term and will require significant additional investment in weatherization and barrier mitigation to make these homes electrification-ready. The PAs and their partner CAPs aim to weatherize more than 42,000 low-income homes in support of these efforts to ensure maximum savings and health and safety benefits for customers.

The PAs are also leveraging their robust investment in Low-Income sector electrification to obtain federal funding. For example, in 2023, Generac Grid Services secured a \$50 million grant from the DOE's Grid Resilience and Innovation Partnerships program to deploy up to 2,000 batteries to low- and moderate-income households, including approximately 800 batteries in the 2025-2027 term. The PAs will pair these batteries with heat pumps and their heat pump incentives, providing the local matching funds for the federal investment. See section 2.2.7: Cost Recovery, Funding Sources, and Bill Impacts for more information.

In the 2025-2027 term, the PAs and LEAN will explore a mechanism for income verification to augment existing means-tested enrollment, to increase program access for low-income customers. This mechanism will enable customers who do not receive means-tested benefits or who may not possess documents to participate in

federal assistance programs, to still participate in the Low-Income program through income verification according to standardized income guidelines (at or below 60% SMI (state median income)). This income verification mechanism may also allow the PAs to use AMI as an additional qualifier for receiving energy efficiency services in the program's Single-Family pathway.

3.2.1 Low-Income Eligibility Requirements

Customers with a household income at or below 60% SMI and living in single-family (1-to-4 units) residential buildings are eligible for program services through the Single-Family pathway.

Residents in multifamily buildings with 5+ units where at least 50 percent of the units are occupied by residents whose household income is at or below 60% AMI (area median income) are eligible for program services through the Multifamily pathway. Customers who demonstrate eligibility for the utility discount rate automatically qualify for the Low-Income program. Program eligibility can also be demonstrated if the customer qualifies for LIHEAP or other means-tested programs such as Supplemental Security Income, Transitional Aid to Families with Dependent Children, Emergency Aid to the Elderly, Disabled, and Children, and/or food stamps.

Low-income customers remain some of the most vulnerable customers in the Commonwealth. These customers are more likely to live in rental properties, experience high energy burdens, and lack expendable time and resources to dedicate to program participation. As required by statute, in the 2025-2027 term, the PAs will continue to work with the network of local CAP agencies to deliver no-cost, facilitated low-income energy services with a focus on the following strategies.

Continuation of the LEAN Statewide Client Services Center

In 2023, the PAs supported the creation of a Statewide Client Services Center, operated, and managed by ABCD on behalf of LEAN to enhance customer experience. The Statewide Client Services Center supports intake of leads and customer inquiries through multiple channels such as the Community First Partnership, website engagement, and participating vendors. The Statewide Client Services Center currently provides live customer service representatives who can support intake and inquiries in English, Spanish, Portuguese, Haitian-Creole, French, and other languages.

Continuing to Expand Contractor and Workforce Capacity

In the 2022-2024 term, the PAs and LEAN aligned on the deployment of HPCs in the Low-Income program to increase program capacity and ensure timely service to low-income customers. This change allows LEAN to

onboard qualified program contractors to deliver energy efficiency services under the Single-Family pathway in territories where there is increased demand for services that would exceed the local CAP's capacity.

In the 2025-2027 term, Low-Income program lead vendors, ABCD and Action, and other local CAPs, have deployed several strategies to increase program capacity to serve more customers. Through these strategies, these contractors hope to achieve greater low-income participation, high degrees of customer satisfaction, and serve customers in a timely manner. Local CAPs are adding capacity through additional staffing to meet customer demand. ABCD and Action will continue to leverage the capabilities and resources of more HPCs to provide low-income services. Additionally, ABCD and Action are finalizing contracts with market-rate vendors so that they can also provide services in the Low-Income program. For example, the PAs are bringing on market-rate vendors to support QA/QC of projects delivered by other vendors, as well as delivery of energy efficiency and electrification improvements in mixed-income buildings.

The PAs developed this strategy so that they could train vendors already operating in and familiar with the Mass Save programs to provide low-income services; thus, reducing or eliminating the need for handoffs and referrals, which can negatively impact the customer experience and delay implementation timelines. The PAs, ABCD, and Action believe that this will allow the low-income programs to meet customers at all points of entry into the Mass Save offerings and help address prior challenges associated with mixed income properties by enabling one vendor to serve a property with mixed-income levels. Using the existing workforce will also help to add the level of near-term capacity necessary to achieve the ambitious year-over-year production goal growth.

Continuing to Improve Operational Efficiency

The increase in Low-Income Sector production goals, and the subsequent expansion of the delivery network necessary to achieve them, introduce new challenges to the operational efficiency, workflow management, and data availability standards of the programs. The integration of new and existing sources of federal funding (and the additional requirements those funding sources introduce) intensify these challenges. The PAs, Action, and ABCD are pursuing several efforts to achieve efficiencies and better manage workflows.

First, the PAs, ABCD and Action are committed to better leveraging existing technologies, such as Monday.com, to boost operational efficiency and inter-agency communications, and provide greater transparency around program trends and progress before production is reported. Monday.com is a statewide digital workflow management platform used by all implementing agencies (CAP agencies, HPCs, Residential Turnkey Solutions vendors) to input, manage, and report projects or project referrals. As part of these efforts,

the PAs, ABCD, and Action are working to use new features and establish new reporting requirements within this platform to enhance visibility into the pipeline and timing of various projects before production is reported.

Second, ABCD and Action have contracts with Residential Turnkey Solutions lead vendors to increase collective program delivery capacity and reduce bottlenecks, initially in QA/QC, with designs to expand the range of services as needed to meet demand. Third, the PAs, ABCD, and Action are also exploring field tool technologies that can satisfy the reporting requirements of both Mass Save and federal funding sources and allow for greater digital integration with Monday.com. These efforts, once completed, will reduce the administrative burden of switching between tools or duplicating data entry at the implementing agency level. The PAs and LEAN are currently conducting a process evaluation of the low-income programs and will review any additional recommendations that come out of the study, once completed.

[Expand Access to Year-round Income Verification Services](#)

The PAs note that historically low-income customer enrollment occurs primarily from November to March through the fuel assistance program (outside of fuel assistance season) and this limits enrollment options. In the upcoming term, the PAs and LEAN will provide an income verification service to bridge this seasonal gap in enrollment opportunity and augment the existing options for demonstrating discount rate eligibility. This service mechanism will also directly address the obstacles many immigrant or other customers may face in producing required paperwork for federal means-tested programs.

[Convert Heating Systems to Heat Pump Technologies in Situations That Will Not Result in Increased Energy Burdens for Customers](#)

In the upcoming term, the PAs will prioritize the delivery of electrification technology, such as heat pumps, to low-income customers only in situations where the customer energy burden will not be increased, such as moving from delivered fuels. In the 2025-2027 term, the PAs will adopt a strategic outreach plan to low-income customers who have received a fossil fuel system replacement through the program to explore electrification opportunities, especially for systems near the end of their measure lives. This approach also allows PAs to minimize emergency fossil fuel replacements and electrify more low-income customers on delivered fuel and electric resistance.

The PAs will also work with the EOHLC (Executive Office of Housing and Livable Communities) to support gas-to-electric conversions for low-income customers living in subsidized housing. The EOHLC adjusts these customers' utility allowances to address the differential costs between gas and electric heating and to

eliminate energy burden concerns for these customers. As additional protection for EOHLC's updated tenant shield heating schedule that protects customers from increased energy burden, that may affect customers who are individually metered, the PAs and LEAN will continue to work with EOHLC to obtain signed agreements from customers heating with gas and adopting electrification. Since 2008, the PAs have worked in close partnership with LEAN to deliver energy efficiency services to low-income customers with a focus on reducing customer energy burdens and making their homes safer and more comfortable. The PAs will continue their close partnership with LEAN in the 2025-2027 term and will focus on decarbonization and not increasing customers' energy burden. The PAs will remain committed to exploring new decarbonization measures to improve and expand service to low-income customers.

3.2.2 Statutory Budget Requirements

Allocation of Funds for Low-Income Sector Programs and Education

Commonwealth legislation mandates that energy efficiency funds shall be allocated to customer classes in proportion to their contributions to those funds, and "at least 10 percent of the amount expended for electric energy efficiency programs and at least 20 percent of the amount expended for natural gas energy efficiency programs shall be spent on comprehensive low-income residential demand side management and education programs."¹²⁵ The electric and natural gas PAs have allocated sufficient budgets to Low-Income sector programs to meet or exceed this mandate.

3.2.3 Low-Income Program Design

The Program Administrators implement Low-Income program services through a network of local CAP agencies and Implementation Lead Vendors. These Implementation Vendors serve as acting CAP agencies in their home territories and integrate the services from the EOHLC WAP and HEARTWAP programs. The PAs work with Implementation Lead Vendors and CAP agencies to engage with community-based organizations as part of their marketing strategy. To continue to align with leveraged funding sources and as stated within the GCA, the Low-Income program will preserve existing implementation strategies as described below.

Low-Income Single-Family Pathway

In the Low-Income Single-Family pathway, CAP agencies and select vendors (managed by Low-Income Implementation Lead Vendors) deliver in-home energy assessments to low-income residential customers living

¹²⁵ G.L. c. 25, § 19(c).

in 1-to-4 unit buildings. These assessors evaluate the home for weatherization opportunities, mechanical system upgrades, general energy efficiency, and (for electric PAs only) appliance upgrade opportunities. These in-home energy assessments include an evaluation of the home's health and safety conditions to determine suitability for the implementation of energy efficiency and/or electrification measures. The CAP agency or Implementation Lead Vendor then arranges for a qualified contractor to install all applicable measures and services, as agreed to by the customer. The PAs deliver this offer in coordination with the EOHLC WAP and HEARTWAP programs. Additionally, the Program Administrators leverage all available funding streams and jointly offer them to low-income residents to enhance services and customer experience, and to manage program costs.

Low-Income Multifamily Pathway

In the Low-Income Multifamily pathway, the program provides low-income customers living in 5+ unit multifamily buildings (in which at least 50 percent of the units are low income) with a whole building and in-unit assessment and fully facilitated project scope that targets both electric and natural gas end uses. The PAs coordinate assessments and services for multifamily buildings going through the refinancing or capital improvement process with relevant stakeholders to maximize the role of program offers within larger projects and to provide financial clarity early in the process. Once they deem a property is eligible for the pathway, an Implementation Lead Vendor coordinates the initial assessment.

Assessments evaluate the building for weatherization opportunity, mechanical system upgrade, general energy efficiency, and (for electric PAs only) appliance upgrade opportunity. Assessments include an evaluation of the building's health and safety conditions to determine suitability for the implementation of energy efficiency and/or electrification measures.

The Implementation Lead Vendor arranges for qualified contractors to install applicable measures and services and also coordinates with the building's ownership and residents to implement measures in individual dwelling units, as well as in the common areas of the building to ensure maximum benefits to the residents. The Program Administrators leverage all available funding streams and jointly offer them to income-eligible residents to enhance services and customer experience.

Low-Income Multifamily Deep Energy Retrofit Pathway

Through the Low-Income Multifamily Deep Energy Retrofit pathway, the PAs offer low-income building owners the opportunity to pursue decarbonization projects. These decarbonization projects allow low-income building owners to see more significant energy savings than traditional retrofit approaches would achieve and allow the

owners to incorporate them into more intensive refinancing or capital improvement renovations. These projects integrate a range of high-performance building technologies that go beyond the programmatic scope of a typical retrofit project, such as but not limited to structurally insulated exterior cladding, continuous insulation or targeted exterior air sealing, ventilation with energy recovery ventilators, variable refrigerant flow systems, heat recovery ventilators, and heating system conversions from delivered fuels or natural gas to heat pumps. In all cases, these projects maintain energy burden protections for low-income residents as a core requirement, regardless of the technical scope of work.

To qualify for the Low-Income Multifamily Deep Energy Retrofit pathway, owners must agree to a scope of work that will result in at least 40 percent reduction in energy use intensity, achievable through energy reduction (traditional retrofit direct-installs, air sealing, insulation, etc.) and electrification (heat pumps, ENERGY STAR radiant stoves, etc.), but not including onsite renewable energy production. The PAs and LEAN have developed an offer letter to provide low-income building owners who wish to pursue a Deep Energy Retrofit. This letter confirms modeled savings and energy reduction, incentive parameters, the final modeling of reductions, and the savings associated with the incentive amount for each project.

Quality Control

As mandated by EOHLC, all projects that receive DOE funding must receive post-installation QA/QC inspections from the supporting CAP agency. This requirement ensures the CAP agency performs its work according to the EOHLC guidelines. The CAP agencies and Implementation Lead Vendors also perform 100 percent post-installation inspection (including a minimum of 50 percent in-process inspection) of all program projects regardless of leveraged funding. EOHLC Technical Field Monitors perform another level of visual inspection for 20 percent of all DOE-funded projects; 10 percent of these total units also receive a full QC Inspection that includes complete testing on the dwelling. During these inspections, EOHLC reviews both DOE and PA-funded work. Also, the PAs have an independent third-party vendor perform QA/QC inspections on five percent of all projects exclusively funded by the PAs.

Description of Measures to be Offered

Offerings

The program provides the following measures at no cost to Low-Income Single-Family pathway participants with or without leveraged funding. For Low-Income Multifamily pathway participants, the PAs fully subsidize these cost-effective projects, with or without leveraged funding. In some Multifamily pathway cases, PAs will fund projects or measures to establish dollar limits where applicable. In all cases, the PAs use any additional

sources of funding (e.g., WAP and HEARTWAP for Single-Family pathway, federal monies for Multifamily pathway) to ensure low-income customers do not incur any out-of-pocket costs.

The measures available to low-income customers include:

- Insulation (attic, wall, foundation, pipe, and duct) and air sealing (single family traditional retrofit and multifamily retrofit and in-unit), collectively “weatherization.”
- Heating system replacement, including both like-for-like upgrades (e.g., upgrading to a high efficiency version of the existing equipment type) and electrification measures (e.g., upgrading a fossil fuel system to a heat pump) where appropriate and where energy burden will not be increased by the change in technology.
- Domestic hot water system replacement, such as indirect and heat pump water heaters.
- Immediate savings measures such as programmable and smart thermostats, advanced power strips, pipe wrap, lighting, and water-flow devices such as showerheads and faucet aerators.
- Appliance upgrades, including refrigerator and freezer replacement, second refrigerator removal, clothes washer replacement, dehumidifier replacement, and window air conditioner replacement.
- Single to triple-pane window upgrades, where applicable.
- Repairs and barrier remediation when required for weatherization or electrification (e.g., knob-and-tube re-wiring, mold remediation, asbestos, vermiculite, roof repair, electrical panel upgrade, etc.), when cost effective.

In multifamily applications specifically, mechanical systems upgrades include:

- Energy management systems and building controls.
- Motors and drives (variable frequency drives).
- Refrigerant management (variable refrigerant flow), chillers.
- Other large mechanicals such as air compressors, ventilation system repair adjustment or replacement, heat recovery ventilation/energy recovery ventilation, redistribution systems, and temperature building controls.

Program Barriers

Low-income customers may experience multiple barriers to participation both technical and non-technical in nature. Technical barriers in low-income building stock are often the result of deferred maintenance due to the high cost of repairing or replacing outdated or failing building components. Technical barriers may impose health and safety risks to occupants, contractors, or both, and may limit the applicability or threaten the durability of program measures if installed without prior remediation. Technical barriers include active knob and tube wiring, mold and moisture damage, combustion safety issues, structural and roofing issues, and vermiculite or asbestos-like materials. Non-technical barriers stem from customers' ability to dedicate time and energy to engaging with the program, from their awareness of the program and trust in what it has to offer them, and from their ability to interact with the program in their preferred language.

Many low-income customers are renters, which means they lack the authority to make capital improvements to their homes and their participation in the program is highly dependent on their landlord. The PAs provide the following solutions to these technical and non-technical barriers to participation.

Technical barrier solutions

- Repair or remediation of existing technical barriers is considered in the scope of every Low-Income program project in which a barrier(s) exists. The PAs will fully fund these repairs along with the associated decarbonization measures, if the overall project is cost-effective.
- The PAs have expanded the operating budget for repairs in the Low-Income Single-Family pathway and established an allowance for repairs in the Low-Income Multifamily pathway (where such repairs historically depended on refinance or capital investment projects on the part of the building owner).

Non-technical barrier solutions

- LEAN employs a quarterbacking model in their implementation of the Low-Income program. This model ensures end-to-end project facilitation and customer support, reducing the time and energy commitment required by customers to participate. The PAs now allow all units in 2-to-4-unit multifamily buildings to be served through the Low-Income program if more than 50 percent of the units are low-income, including landlord-occupants. This expansion includes HVAC and appliance upgrades for all units (where historically only weatherization applied) and buildings where landlords pay the PAs for their income-eligible tenants.
- Low-income marketing and awareness campaigns span all media types, grassroots efforts, and leverage relationships with community-based organizations to increase program awareness and

establish trust with low-income customers. The PAs and LEAN will provide standalone income verification services for low-income customers to gain access to the program outside of historical eligibility and enrollment processes subject to seasonality.

- The PAs and LEAN provide in-language support for low-income customers through the LEAN Statewide Client Services Center and the CAP agencies, and the PAs will incorporate Language Access recommendations. Lead vendors will have trans-created/transcribed marketing materials as well as a technical dictionary explaining customer facing terminology in five languages.

How the Program Impacts Plan Priorities

Equitable delivery of energy efficiency services to low-income customers in Massachusetts is a key component of the PAs' commitment to equity in the 2025-2027 term. To achieve these goals, the PAs and LEAN coordinate program delivery design and continuous innovations including recently integrated changes like the Lead Implementation Vendor model and LEAN Statewide Client Services Center throughout the 2025-2027 term. The PAs continue to work toward focusing on electrification in delivered fuels customers who are eligible for the Low-Income program offerings. The Program Administrators will work with LEAN and Community Action Program agencies to identify and act on capturing any decarbonization opportunities to provide a healthy and safe home for the customers and facilitate an equitable clean energy transition in Massachusetts.

Strategic Enhancements

The PAs, in close collaboration with LEAN, plan to build on the customers access to the Low-Income program by taking steps to further improve and streamline the customer experience, offer more opportunities for greater energy savings for both single and multifamily income-eligible customers, and provide customers in all building types with equitable energy efficiency services. The PAs are focused on developing program delivery enhancements that best reflect the implementation insights and strategic priorities for equitably serving vulnerable customers.

Enhancement #1: Proactive electrification of fossil fuel systems, customers who have previously weatherized, and buildings that heat with electric resistance and delivered fuels

The PAs will explore a pathway to proactively reach out to customers with aging fossil fuel systems to evaluate opportunities for conversion to heat pumps. The outreach will assess the need for equipment replacement, evaluating not only the equipment's efficiency, but also its age and condition. This approach is also intended to mitigate the number of emergency replacements for low-income customers. Lack of electrification readiness due to building conditions or infrastructural barriers has been one of the factors leading to emergency

replacements for delivered fuel customers in the Low-Income program. This strategy of identifying customers who have received fossil fuel replacements, or for whom existing data indicates aging fossil fuel equipment, for proactive strategic electrification, can help the PAs and LEAN accelerate electrification efforts in the Low-Income sector and avoid potential missed opportunities.

The PAs will focus outreach on customers with fossil fuel systems nearing the end of life, either known through date of previous replacement or through documented age from a prior assessment. Outreach will prioritize oil and propane systems first and will consider previously replaced systems over 12 years old but still within their measure life, as well as systems not previously replaced but nearing an age and/or condition at which reliability will become a concern.

Additionally, the PAs and their CAP partners will continue to work together to identify customers who have received weatherization services and to strategically target buildings that have previously been weatherized and heat with electric resistance or delivered fuels and typologies that can support efficient implementation of electrification projects for outreach regarding electrification and installation of heat pumps.

Enhancement #2: Support comprehensive assessments

The PAs will continue to support and strive for a singular comprehensive assessment to address customer time constraints as a participation barrier. These assessments should include all energy efficiency (e.g., appliance assessment, weatherization scoping, heating system assessments), and additional decarbonization opportunities during a single visit to the customer's home. This visit will also promote customer awareness and education about program offerings, and what electrification and decarbonization provide in terms of health and safety, environmental impact, and comfort/quality of life, as well providing information regarding operational cost and setting expectations on the shifting of those costs from one energy source to another.

Comprehensive assessments will:

- Assess all energy efficiency and decarbonization opportunities in a single customer visit.
- Improve customer education on the benefits of decarbonization.
- Enable decision-making by providing all recommendations clearly with prioritized next steps.

Enhancement #3: Launch an income-verification process

The PAs are working with LEAN to launch an income-verification service that will allow customers to qualify year-round for energy efficiency services and not just in fuel assistance season. This service also aims to alleviate obstacles that immigrant customers may face in producing required paperwork for federal means-tested programs. The PAs and LEAN will implement a mechanism for income verification in addition to the means-tested benefit enrolment as a way of increasing access to the program offerings. This will enable customers who may not be on any means-tested benefits or may not possess documents to participate in federal assistance programs, to still participate in the program through income verification according to standardized income guidelines (at or below 60% of SMI or AMI). This mechanism may also allow for using AMI as an additional qualifier for receiving energy efficiency services in the Low-Income Single-Family Pathway.

Enhancement #4: Opportunities for additional energy-saving measures

The PAs and LEAN will continue to evaluate and explore additional savings potential and the benefits of additional energy efficiency measures that are responsive to customer needs, technological advances in the field, or may be supported through other programs, to determine if they can be eligible measures for customers through the Low-Income program. The PAs will continue to work with LEAN to evaluate additional offerings such as gas-to-heat pump water heater, 120-volt heat pump water heaters, ENERGY STAR radiant stoves, induction cooktops, air-to-water heat pumps, window unit heat pumps, and ground source heat pumps. This will support the program goal to be responsive and adaptable to market changes and customers' needs and will allow for flexibility and innovation in serving them throughout the 2025-2027 term.

Enhancement #5: Barrier mitigation budget for the Multifamily pathway

The PAs support barrier mitigation and pre-electrification at no cost to the customer. However, as the PAs continue to serve more customers in equity and environmental justice communities, the presence of increasingly complex barriers to the installation of energy efficiency services has emerged, especially in small multifamily buildings with low- and moderate-income renters. The PAs will include barrier mitigation funding for small multifamily units in the budget for the 2025-2027 term. This will help reduce barriers and streamline the process of serving small multifamily buildings.

Additionally, the PAs will remove pre-weatherization barriers for multifamily building owners. Many small multifamily building owners of 5-to-25-units cannot access capital to address pre-weatherization barriers. Currently, the PAs have supported pre-weatherization barrier support for 1-to-4-unit homes. For the 2025-

2027 term, the PAs will update their protocols to contribute up to \$10,000 per project to address pre-weatherization barriers for the 5-to-25-unit building group.

There are some cities and towns (e.g., Lawrence) that will not issue permits for weatherization and/or heating where there is an outstanding municipal lien (usually real estate taxes and/or water bills). Some cities and towns have recognized that removing such barriers to weatherization and heating improvements will increase a landlord's ability to pay down such arrears. Negotiating the removal of such municipal lien barriers will thus allow increased renter participation. The PAs will contribute to efforts by LEAN and EOHLC to address this barrier.

Enhancement #6: Replace double-to-triple pane windows

The PAs will replace single-pane windows with triple-pane windows in customer homes as a weatherization measure. The PAs are also exploring along with LEAN to offer replacements of double-to-triple pane windows as an additional weatherization measure.

Enhancement #7: Offer heat pump O&M services

Currently, the PAs offer heat pump O&M services for customers who have received air source heat pumps through the Low-Income program. The PAs will continue to support this and offer it to customers who want to switch from natural gas equipment to air source heat pumps.

Enhancement #8: Implement language access

During the 2022-2024 term, the PAs engaged with industry experts to help provide language access recommendations to support access for residential and small business customers. The PAs plan to incorporate relevant recommendations within the Low-Income program to support LOTE customer access, understanding, and participation. Language access recommendations include a review of vital documents for translations, multilingual statewide contact center support services, and interpretation services for in-person visits. Another recommendation noted that the continuity of translation services across PAs and vendors is important to ensure customers have a seamless experience and are not missing key information about the program and their eligibility for incentives.

Incentive Levels

The Low-Income program covers 100 percent of the cost for qualified customers. By leveraging LIHEAP funding or PA funding, customers can receive appliance replacements as well as heating system replacements.

Figure 30: Low-Income Program Incentive Levels

Measure	Criteria	Incentive Amount
Air sealing	Decreasing outside air flow by sealing gaps in thermal envelope	100%
Appliances	Replacing old inefficient appliances for low-income customers in 1-to-4-units or multifamily properties	Refrigerators, deep freezer, window A/C
Building insulation	Improve up to R-49 in attics and fill any closed cavities to capacity	100% weatherization for low-income rental units and multifamily units that are over 50% low income
Duct insulation	Outside thermal envelope, less than R-2 existing insulation	100% for rental units, and Whole Building projects that are 50% or greater low-income qualified
Duct sealing	Ductwork outside the thermal envelope	100%
Immediate savings measures	All customers receive a set of measures that are low-cost and a low-lift installation effort	100%
Programmable thermostats	Analog thermostat existing	100%
Repairs	Remediation of barrier in areas where proposed weatherization work is recommended or when barrier prevents any/all work from being completed	Barrier mitigation is covered if a pre-weatherization barrier exists, covers knob-and-tube, mold, asbestos, and vermiculite
Windows	1-to-4-units or multifamily low-income properties	Single to triple pane

3.3 Commercial & Industrial Sector

For more than two decades, the Massachusetts PAs have been national leaders in designing and implementing award-winning C&I energy efficiency programs that have served as a model for other programs across the country. Notably, the PAs pioneered the Small Business Turnkey pathway, built one of the largest and most successful midstream delivery pathways in the country, launched a next generation new construction program design, and helped lead the transformation of the lighting market.

Historically, the success of the C&I programs hinged heavily on lighting. Now, the PAs have shifted their focus toward other opportunities such as HVAC controls and equipment (including heat pumps), insulation, air

sealing and other envelope improvements, and refrigeration measures. In the 2025-2027 Plan, the PAs propose an ambitious vision to help the Commonwealth meet its decarbonization goals, developed in partnership with stakeholders statewide. This vision combines proven approaches to energy efficiency with a new strategy for preparing the C&I sector to electrify their fossil fuel-based heating and water heating systems, the introduction of a new class of measures focused primarily on reducing GHG emissions, an overhaul of the PAs' approach to existing building commissioning, and refinements to numerous other C&I offerings. The PAs will also no longer support new natural gas equipment except in limited circumstances.

In crafting a new approach to the C&I sector, the PAs have relied on building blocks and lessons learned during the 2022-2024 term, particularly related to electrification and HVAC control systems. During this period, the PAs have expanded, diversified, and upskilled the energy efficiency workforce across Massachusetts. This includes leveraging the HPIN to implement C&I projects and partnering with vendors with demonstrated expertise in heat pumps, control systems, and other technologies. Likewise, the PAs have developed new pathways and incentive offerings to support controls systems, electrification, and weatherization. While these efforts have begun to bear fruit, the PAs will make several other major changes to build on these initial efforts in the next term, as described below.

Leading the Way on Greenhouse Gas Reductions

Electrification

In general, electrifying commercial buildings requires different strategies than electrifying a residential building. For example, commercial buildings in the Commonwealth are less likely than residential buildings to rely on delivered fuels for heating, with a recent study estimating that just 16 to 25 percent of commercial buildings across all building types use delivered fuels as their primary heat source.¹²⁶ In the 2025-2027 term, the PAs' approach is designed to drive long-term market transformation by creating customer awareness and demand for electrification products, upskilling and expanding the workforce, and equipping local vendors with tools to identify and plan for decarbonization. These workforce efforts have a special focus on architecture, mechanical, engineering, and plumbing professionals.

The PAs will take a bifurcated approach to electrification retrofits in small versus large buildings this term. There are more near-term opportunities to electrify smaller buildings, because there are often "drop-in

¹²⁶ DNV GL, "Massachusetts Commercial and Industrial Existing Buildings Baseline Study." Not yet published.

solutions,” meaning existing technologies can be installed without the need for large-scale changes to facility infrastructure. The PAs will continue targeting electrification measures in smaller buildings primarily through open market vendors, including members of the rapidly expanding HPIN and, to a lesser extent, through the Small Business Turnkey Retrofit program.

In larger buildings, the PAs have made strides in the new construction space, where electric heating and hot water technologies can often be implemented without a major up-front cost premium relative to fossil fuels (although operating costs are still often higher than for gas-powered heating systems under current market conditions). Planned targets reflect aggressive growth in electrification of new buildings, stemming from projects initiated during the 2022-24 term when the PAs began offering heat pump adders.

Large existing buildings are typically harder to electrify using current technologies. They typically require modifications to ventilation, hot water distribution systems, electric panels, and building controls. Without these modifications, which tend to be highly capital intensive, there are often no readily available efficient electric heating solutions.

To address this, the PAs have established deliberate, long-term strategies to electrify existing large commercial buildings, enabling customers to begin planning and prioritizing capital investments to electrify their buildings over a longer time horizon. Specifically, the PAs will introduce three different types of decarbonization studies:

- **Comprehensive building assessments** explore both energy efficiency and electrification opportunities within a specific building or site, and the anticipated steps needed for full electrification.
- **Portfolio prioritization plans** capture basic information on equipment and energy use intensity across their entire portfolios, helping customers to prioritize which facilities to electrify in the near-term electrification.
- **Decarbonization roadmaps** will provide customers motivated to decarbonize with a deep dive on either a portfolio of buildings or single, large facility, including electrification strategies and GHG emissions modeling to support compliance with ordinances like BERDO.¹²⁷

To simplify program accounting, the budgets for these studies are accounted for within the Existing Buildings core initiative, however, they are expected to drive implementation of both custom and prescriptive

¹²⁷ Building Emissions Reduction and Disclosure, City of Boston Code, Ordinances, Chapter VII, § 7-2.2.

electrification measures. The PAs will also introduce a shared savings and budget model for electrification. Under this model, prescriptive electrification measures are accounted for in a statewide pool that allocates costs and savings across all PAs, which is accounted for in the Equipment Rebates & Instant Incentives core initiative. Likewise, custom electrification measures will be split between the electric and gas PAs. See section 2.2.4: Cost Effectiveness and Benefits and for more details.

The PAs will provide technical assistance to help large customers explore networked geothermal systems through Decarbonization Roadmaps. The C&I programs can provide incentives to support these systems provided they are behind-the-meter systems owned by customers or third-party vendors, not by the electric or gas distribution companies. For example, the PAs will provide support for customers installing networked geothermal systems to replace aging steam or hot water distribution systems currently served by fossil fuel consuming equipment.

Although the PAs have planned for a ramp up in electrification retrofits compared to results in the 2022-2024 term, electrifying large commercial buildings remains extremely challenging. This is due to the high upfront capital investment needed to cover installation costs, minimal opportunity for operating savings in most buildings with current electricity prices, currently available technologies, a growing but still limited workforce with expertise in large building electrification, limited customer understanding and confidence in the technologies, and disruptions to building occupants imposed by time-consuming retrofits of heating and cooling systems. While some customers are motivated to electrify to meet climate goals, many are highly price sensitive and can only afford to make investments if they result in near-term financial benefits.

Pre-Electrification Support

The PAs will help customers understand and plan for building upgrades required prior to full electrification, including:

Heat recovery and weatherization

- Electrical upgrades, including internal upgrades as well as working with electric distribution companies to upgrade nearby grid infrastructure.
- Modifying hot water distribution systems to run on lower-temperature water
- Heat recovery and weatherization produce energy savings and are incentivized by the PAs. Electrical upgrades and modifications to hot water distribution systems do not typically produce savings, and thus are not supported.

- Heat recovery and weatherization.
- Heat recovery and weatherization helps reduce the amount of energy required from heating and cooling systems, in turn allowing for downsizing of heat pumps, helping mitigate the need for service upgrades, and reducing demand on the grid. The PAs will promote these measures by providing technical assistance to illustrate their benefits, offering incentives to help customers implement these measures, and ensuring the evaluation framework for the programs properly assess their benefits. Massachusetts has one of the oldest building stocks in the country, and it is commonplace for buildings to be inadequately ventilated. In these instances, the PAs will use a properly ventilated building as the basis for determining the benefits associated with using heat recovery to reduce heating loads so that electrification is more achievable. The PAs will explore this practice with other sources including wastewater energy recovery.
- Properly insulated and sealed envelopes can also help reduce heating loads in commercial buildings. Existing envelopes built to less stringent energy codes and having decades of use can present good opportunities for improvements. However, while energy codes require the envelope to be brought up to code when it is touched, energy codes do not require that envelope to be touched. Accordingly, the PAs will use the existing conditions as the baseline to encourage customers to include envelope upgrades in the scope of their projects whether it is a retrofit or an otherwise planned renovation of another aspect of the building.

Electric service upgrades

- The PAs recognize that for some customers, the ability to electrify their space heating equipment will depend on the ability to get power to specific locations at their site. The PAs will offer technical assistance to help assess the electrical infrastructure at a customer's site to identify where panel upgrades, new wiring, and other customer-side equipment may be needed to deliver power to heat pump equipment. In some cases, the customer may need to work with the electrical distribution companies to determine any grid-side upgrades that may be needed to provide power to the site. The PAs will connect customers with appropriate staff within the electrical distribution companies to help navigate them through that process.
- Modifying hot water distribution systems to run on lower-temperature water.
- Many buildings in Massachusetts have internal hydronic distribution networks that rely on high-temperature water, around 180°F, which is readily achievable using fossil fuel-fired boilers. Current heat pump technology can typically achieve temperatures of about 130°F, which can often provide

sufficient heating for a building instead of the traditional 180°F, according to design consultants. However, not all hydronic distribution systems can run on lower temperature water. Electrifying these buildings will require some combination of different measures, such as weatherization, pipe insulation, and supplemental (inefficient) electric resistance heat. The PAs are hopeful that future advances in heat pump technology will rival fossil fuel-fired boilers, thereby mitigating the need to convert to lower-temperature hydronic distribution systems.¹²⁸

Greenhouse Gas-Centered Measures

The PAs are introducing a new class of measures designed primarily to reduce GHG emissions, with energy consumption reductions as a secondary objective, including:

- Refrigerant emissions mitigation for grocery stores
- Carbon capture and sequestration from combined heat and power facilities
- Embodied carbon reduction in new construction
- Behind-the-meter gas leak remediation measures

What differentiates these measures is that while some have marginal energy benefits, the primary benefits arise from emissions reductions achieved at a low cost per unit of CO₂e reductions. Similarly, the PAs will support the mitigation of behind-the-meter natural gas leaks and claim the global warming potential benefits with methane emissions. See below for further details regarding these offerings.

Existing Building Commissioning

The Building Commissioning Association defines existing building commissioning (“EBCx”) as “a systematic process for planning, assessing, investigating, analyzing, improving, optimizing and verifying the performance of building systems and assemblies.”¹²⁹ The PAs have supported EBCx through the Equipment and Systems Performance Optimization offering since 2019. While there has been some modest uptake, the PAs will

¹²⁸ Systems requiring water greater than 200°F are considered “hard to electrify” and can still be supported by the PAs, as agreed on with DOER; this provision applies primarily to industrial process applications and does not cover standard heating and domestic hot water applications.

¹²⁹ Building Commissioning Association. “[Existing Building Commissioning Best Practices](#).” Accessed: Sep. 13, 2024.

introduce a new approach in 2025 that should generate greater customer interest and savings. The new approach will involve:

- Qualification of specialized commissioning agents
- Upfront support to cover site screening and investigation costs
- A streamlined process for reporting savings
- Procedures to validate measure performance and improve persistence

The EBCx process aims to identify a different set of energy efficiency measures from a comprehensive energy assessment, primarily low-cost optimizations achieved using existing building control systems, though other measures can also yield significant savings, including capital measures like envelope improvements and heat recovery. The EBCx offering will cover both one-time retro-commissioning and continuous or “monitoring-based commissioning.”

For qualified customers, the process will begin with an EBCx investigation performed by a qualified EBCx provider, followed by implementation of measures identified by the study, typically beginning with low-cost system-tuning opportunities. This effort will drive near-term savings by optimizing the performance of existing systems and improve savings persistence through the commissioning process, customer training, and documentation. The PAs plan to initiate the commissioning of 150-300 facilities this term, with an anticipated launch date of mid-2025.

Enhancing Program Access for All

The PAs will introduce the following enhancements, primarily in the Small Business Turnkey Retrofit program:

- Expanding the Customer Directed Option to recruit new installers and streamline offers statewide.
 - Coordinating between the PAs and lead vendors so customers are served by a single vendor and standardizing the assessment and proposal process.
 - Engaging with commercial landlords through enhanced incentives, increased outreach and marketing efforts, new landlord and commercial renter-facing resources, and coordinating decision making between commercial renters and landlords.
 - Offering enhanced incentives to select tax-exempt entities, including but not limited to charities, religious organizations, and veterans’ organizations, to promote comprehensive energy measures.
- The PAs will also enhance outreach strategies in the community.

Beyond the efforts described above, the PAs will build upon the success of past Main Streets efforts and continue to focus on environmental justice communities and enhanced community outreach strategies. Main Streets events are coordinated efforts to get many small businesses in a particular community to complete energy assessments and upgrade their facilities. In the 2025-2027 term, the PAs will reduce the number of events to ensure vendors have bandwidth to conduct more comprehensive assessments and interventions, providing a better customer experience. The Program Administrators will also implement elements of the Language Access recommendations developed in collaboration with the Equity Working Group.

In addition to small business efforts, the PAs will increase support for schools located in equity communities. More details can be found in section 3.3.2: Existing Buildings, Enhancement #9. Finally, the PAs will undertake several activities to increase the diversity of vendors providing services to the PAs and their customers. This effort cuts across the C&I, Residential, and Low-Income sectors and is described in section 3.4.4: Workforce Development.

Delivering a State-of-the-Art Customer Experience

The PAs are taking several steps to improve the experience of participating customers and contractors. One area of focus is ensuring consistent program delivery. Although the Program Administrators provide a consistent experience, variations can arise. For example, custom projects inherently require project-specific treatment. The PAs have developed standard project guidelines, processes, and tools to improve consistency, which will be reinforced and implemented under new governance practices in the new term. Another source of inconsistency results when individual PAs experiment with new strategies to drive innovation. This is a great strength of the PAs' implementation model because as successful strategies mature, they are adopted statewide. Examples in the 2025-2027 Plan include Eversource's Small Business supplier diversity effort, National Grid's monitoring-based commissioning approach, and Cape Light Compact's offer for charitable organizations.

The PAs are also making strides to coordinate by employing shared vendors, especially in split territories, where customers have different electric and gas PAs. This includes a shared stable of technical assistance vendors who can provide support for both electric and gas measures and projects. To facilitate data sharing across electric and gas PAs, as well as with customers, the PAs will develop a database that will house technical assistance studies and capture lists of energy efficiency and electrification opportunities in a structured format. The costs of studies that explore both electric and gas measures will be split between electric and gas PAs, obviating the time and expense associated with conducting separate studies for electric and gas PAs.

The PAs continue to introduce new custom express tools and prescriptive tools to calculate savings and incentives, easing the process of quantifying energy savings. Some of these tools are hosted on the Mass Save website, and the PAs are working to expand the number of calculators available on the website. The net effect of the efforts described above will lead to higher customer satisfaction, increased speed and accuracy of energy efficiency and decarbonization projects, improved customer support, and increased program adoption.

C&I Program Overview and Eligibility

The C&I programs provide incentives, technical assistance, and other services to all non-residential customers, including businesses, public agencies, multifamily properties, and institutional customers, both large and small.¹³⁰ Customers consuming less than 1.5 GWh per year of electricity or 40,000 therms of gas qualify for the Small Business Turnkey Retrofit program.¹³¹ The PAs serve C&I customers through the five programs shown below.

Figure 31: 2025-2027 C&I Core Programs

Core Program	Description
New Buildings & Major Renovations	Encourages and supports customers and their design/contractor teams in achieving all-electric, low energy-use building solutions to transform the market practices and speed up adoption of these solutions.
Existing Buildings	Provides incentives, technical assistance, and other services to help customers reduce their energy costs and decarbonize their operations. All non-residential customers are eligible, including commercial, industrial, institutional, and public agency customers – with a focus on mid-to-large customers.
Equipment Rebates & Instant Incentives	Focuses offerings on equipment and product categories that will benefit large groups of commercial, industrial, and municipal customers with financial support to buy down equipment costs at the distributor level (Instant Incentives) and after purchase (Equipment Rebates) for which both paths require the hiring of specialized vendors that process incentives on a large scale.
Small Business Turnkey Retrofit	Addresses the unique needs of small and microbusiness customers in achieving energy efficiency goals by providing technical assistance/site assessments, installation services,

¹³⁰ Multifamily properties with commercial meters are also eligible for the C&I programs. These customers follow the standard rules for each core program, with the budgets and savings reported as a separate program.

¹³¹ For Unifit customers, the Small Business Turnkey Retrofit cap is 1.0 GWh per year.

Core Program	Description
	and incentives through contractors selected by either the PAs (Small Business Services vendors) or customers (Customer-Directed Option).
ConnectedSolutions	Provides system benefits by reducing the long-term capacity, transmission, and distribution costs by offering incentives to encourage ADR, both on peak days (Targeted Dispatch) and throughout the summer season (Daily Dispatch).

3.3.1 New Buildings & Major Renovations

The goal of the New Buildings & Major Renovations program is to encourage and support customers and their design/contractor teams in achieving all-electric, low energy use building solutions in the commercial, industrial, institutional, and municipal new construction and major renovation markets. The Program Administrators implement the program in a way that transforms those markets toward these solutions faster than would occur absent program interventions and enables energy code to require them. As the Program Theory and Logic Model included in the *C&I New Construction Program Planning & Market Effects/Spillover Study* conducted by NMR and EMI (dated April 15, 2020) states, the program is comprehensive in nature, bringing together customer incentives, technical support, and education/training with the combined intent of transforming the way commercial buildings are designed and built in the Commonwealth. Please see Appendix X: Market Transformation Program Theories and Logic Models for draft descriptions of the New Construction market transformation initiatives.

Project types that PAs serve with this program include ground-up new construction of whole buildings or additions, major renovations of entire buildings, or substantial alterations in connection with events like tenant or space-use changes. The program is the PAs' primary vehicle for leading customers and the Massachusetts C&I design, construction, and developer community toward net zero, zero carbon, and low Energy Use Intensity ("EUI") building outcomes. The PAs' vision is to empower building developers, design teams, contractors, and end-use customers to create buildings that perform exceptionally, have the most efficient non-emitting energy systems, and deliver indoor environments that support happier and healthier occupants and higher productivity for the Commonwealth's businesses and institutions.

Starting in 2025, new buildings must have all-electric energy systems to receive any support. All ground up new construction projects participating in the program are required to be fully electric for space and ventilation air heating, domestic hot water heating, and kitchen equipment with only limited exceptions for natural gas connections. The program shifted to prohibit natural gas use in participating new buildings started

in January 2024; The PAs note that some major renovation projects may still include some natural gas equipment in the 2025-2027 term, however the PAs will not provide incentives to support this equipment.

The PAs' support and communication with customers and design teams in the program pathways has always been handled in an integrated, streamlined fashion. When there are two PAs serving a customer, the electric PA takes the lead in enrolling the project, securing vendor support, and leading communications with the project team. The program support, like the program offers itself, is holistic and integrated.

In support of its market transformation mission, the New Buildings & Major Renovations program includes direct customer incentives and design team support as well as education and training efforts, all geared toward accelerating the pace of learning and executing design and construction practices that, at this time, are new to most market actors, familiar to some and led by a few.

Program Design

Eligible projects include commercial, industrial, institutional, or municipal new buildings or major renovation projects of any size¹³² or level of complexity. New buildings must have all-electric energy systems to participate, with limited exceptions, and must be served by an electric PA.¹³³ Major renovations could still have some gas equipment, and, therefore, any customer with an existing active account with an electric or gas PA is eligible. Multifamily projects are supported through the Residential New Homes & Renovations program (see section 3.1.1).

The PAs work with customers on new buildings and major renovations to help them achieve the lowest GHG emissions and EUI outcomes possible. EUI is a measure of a building's predicted or actual annual energy use divided by its square footage. Dividing by square footage normalizes energy use so that the performance of similar buildings (i.e., schools or offices) can be compared to one another. EUI is a simple metric and is similar to the miles per gallon of a car, except instead of miles and gallons, it is building energy use and square footage where the lowest possible EUI is best (e.g., a 25 EUI is considered optimal for K-12 schools and a 30 EUI is excellent for an office building). The C&I New Construction Program Planning & Market Effects/Spillover Study conducted by NMR and EMI (dated April 15, 2020) laid the groundwork for using EUI as the foundational element in the multi-pathway approach to the New Buildings & Major Renovations program support that the

¹³² Projects under 10,000 sq. ft. are only eligible for Path 3.

¹³³ New buildings that will be served by a municipal electric utility will not be eligible for the New Buildings & Major Renovations program.

PAs launched in the summer of 2020. That report affirmed that “Charrette discussions, focus groups, and IDIs [in-depth interviews] with market actors and industry experts expressed overwhelming agreement that using EUI is the best step forward, calling it a “pure metric” and “*the* approach.”

Project teams who set and work toward optimal target EUIs that represent decarbonized building outcomes can more easily stay on track for successful operational outcomes. Importantly, a low EUI target optimizes the building design in three critical ways with a single number that: (1) helps project teams design for the lowest possible energy need or load, (2) forces electrification if the EUI target is set low enough, because only electric buildings can meet ultra-low EUI targets and on-site combustion typically increases EUI, and (3) forces the highest energy efficiencies for equipment specified to meet the building’s load. Finally, beyond helping to optimize the design, EUI is measurable. Project teams can measure a rolling one-years’ worth of energy use and divide it by square footage, thereby checking over time to make sure the building is operating at the energy levels and efficiencies the project team intended, year over year.

Program Pathways

The New Buildings & Major Renovations program has three participation pathways aimed at comprehensive all-electric and energy-efficient whole building solutions and long-term market transformation. New buildings may only participate if they include all-electric systems. Only limited exceptions for fossil fuel use are allowed as noted in the pathway descriptions below. The exceptions simply allow fossil fuels to be included in niche situations. The PAs will not support fossil fuels with incentives or any other assistance in any of these instances.

The all-electric requirement for new buildings is an important pillar of the market transformation framework of the program. The PAs promote all-electric systems in directional alignment with, but in advance of, current state base energy code, Stretch Code, or even Specialized Code requirements. By providing important financial support, technical assistance, and the education/training needed to accelerate market adoption of fossil fuel free new construction, the PAs, along with other policy drivers, help enable future fossil fuel free code mandates and thereby lay the groundwork for all new buildings in the Commonwealth to be constructed fossil fuel free in the future.

The three New Buildings & Major Renovations program paths are described below.

Path 1: Net Zero & Low EUI Buildings

“Path 1” is the flagship New Buildings & Major Renovations participation offer, where the PAs offer the highest incentive rates of any of the three pathways, explicitly promote decarbonization, set the lowest absolute EUI targets, offer a per-ton heat pump adder, and work with customers through a one-year post-occupancy period to ensure buildings execute their low EUI target and carbon goals in operation. A project team¹³⁴ participating in Path 1 commits to designing and building with all-electric systems (they may use fossil fuels for emergency generation and for instructional purposes in science labs) and sets an ultra-low site EUI target commensurate with net zero aspirations early in the design process. A low site EUI combines load reduction, energy efficiency, and decarbonization strategies all in a single, easy to understand, easy to remember number that a project team can work toward and measure progress against at multiple intervals throughout design and later while the building is operating.

Customers and project teams in Path 1 are unconcerned with baselines and percentage reductions. They strictly focus on one all-encompassing single EUI and advance their design, construction, and operation activities toward achieving this goal. Because of the structure of the path, project types eligible to participate all have known load profiles (i.e., unlike speculative “core and shell” buildings where tenants are unknown or hospitals with highly variable and unknowable process loads). Typical Path 1 project types are municipal buildings of any kind, college or university (non-lab) buildings, dorms, hotels, offices, and nonprofits.

Customer incentives in this path are paid in two phases, at construction completion (Construction Incentive) and after a year of operation (Post-Occupancy Performance Incentive). The Construction Incentive is based on whether the building is built in accordance with the design, which was modeled to achieve a specific EUI outcome. The Post-Occupancy Performance Incentive, payable at the end of the one-year period of operation, is based on whether the building’s operational energy use is at or below the predicted EUI.

The PAs provide supplemental elements of support in Path 1, including the following: (1) technical assistance from a net zero expert to help optimize the design for energy efficiency and zero carbon (i.e., low EUI), and (2) an additional Verification Incentive during the one-year post occupancy period for extra commissioning services that help customers assess ongoing performance and compare it to modeled predictions, taking

¹³⁴ A project team includes the project owner or developer and the design team, which is led by the architect, but also includes electrical, mechanical and plumbing engineers, sustainability consultants, energy modelers and other players like commissioning agents and lighting designers.

corrective action along the way, (the Verification Incentive is intended to prevent a customer from reaching the end of the one-year performance period and being surprised at less than optimal performance).

Path 2: Whole Building EUI Reduction

Like Path 1, “Path 2” supports low EUI buildings, offers the same heat pump adder incentives, and, for new buildings and additions, requires all electric systems as a prerequisite to participation, with limited exceptions: (1) highly ventilated buildings (as defined in Stretch Code) or health care facilities (as defined by the Department of Public Health) where natural gas can only be used for limited space and ventilation air heating, (2) labs or vocational technical schools where natural gas can only be used for scientific research or instructional purposes, and (3) emergency facilities where natural gas can only be used for emergency generation (diesel may be used otherwise). Buildings with existing natural gas connections can still participate in the Major Renovations offer, but PAs will not offer support for new fossil fuel equipment or count efficiency gains in fossil fuel equipment toward EUI reductions.

Project teams are required to set and design toward an EUI target, but there is no post-occupancy performance component for this path as there is in Path 1. The per-square-foot incentives in Path 2 are offered based on modeled EUI reduction (percent reduction) beyond a project-specific baseline with deeper percent reductions yielding higher incentive rates. Total incentives are paid upon PA verification that installed equipment matches the project design and energy model (this is different from Path 1, where total incentives include a component based on a year’s worth of actual building performance). Path 2 is a necessary supplement to Path 1, because it enables support for projects with unknown tenants at the time of design (e.g., speculatively built commercial buildings) and projects with highly variable and difficult to predict equipment loads. These projects cannot be held in operation to absolute EUI targets established in early design (an essential element of Path 1) when much about tenant and equipment loads remains unknowable.

The PAs pay customer incentives in this path at the end of construction in one lump sum, unless they decide per each PA’s policy to retain a portion of the incentive pending review of trend data or commissioning reports. Incentives are set up in tiers, with higher incentive rates available for deeper EUI percent reductions over baseline. Projects with greater degrees of electrification, load reduction, and energy efficiency yield lower EUIs making them eligible for higher per square foot incentive rates. Heat pump projects are also eligible for per ton heat pump adders, which further promote and support electrified equipment and systems.

The PAs provide supplemental support in Path 2, including technical assistance. An expert technical assistance vendor provides energy and carbon saving suggestions early in design. At the mid-design stage, the technical

assistance vendor develops an energy model and interim report to inform the project team of its projected incentive. The mid-design review also presents an opportunity for PAs and the vendor to further persuade the project team to execute deeper efficiency measures that will unlock higher incentive tiers and additional incentive dollars. The technical assistance vendor produces a final energy model based on a completed project design, which is the basis for calculating the PAs' incentive offer.

Path 3: High-Performance Buildings

"Path 3" is the only one of the three paths not centered on EUI reductions. Path 3 is available for tenant fit outs (e.g., retail, office, lab fit outs that are not themselves whole buildings but still fit the definition of new construction/major renovation), small projects under 10,000 sq. ft. in size that as such are ineligible for Paths 1 and 2, projects with large process loads such as indoor agriculture or industrial facilities where setting an EUI target does not make sense, projects where customers engage PAs too late for participation in the other paths, or projects where customers do not wish to set EUI targets necessary for the other paths and may just want incentives for specific measures.

Path 3 offers customer support with a lighter touch than is available through Path 1 and Path 2; the duration of customer engagement with PAs in Path 3 is usually quite a bit shorter versus the other paths and the depth of PA technical support is also less. While Path 3 is a measure-based path, the PAs still look at the entire building design and work with customers as their interest allows them to engage in energy and carbon savings related to all end uses. This path equally promotes decarbonization with the same dollar-per-ton incentive rates as the other two paths, and for new buildings, Path 3 requires full electrification with the same limited exceptions as Path 2. If customers with small buildings (i.e., under 20,000 sq. ft.) seek only heat pump incentives, the PAs have a special application that makes support for that measure quick and easy.

In Path 3, the PAs pay customer incentives at the end of construction in one payment, unless a PA determines that holding back a portion of savings and incentive is necessary per its own policy (this procedure is the same as in Path 2). Technical assistance is available in Path 3 on a limited basis, for example, if a project team is engaging early or has unique custom measures, the PAs will bring a vendor in to help the customer with calculations and decision-making. Projects with heavy process loads, such as agricultural or industrial projects, have unique measures and usually require some technical assistance. Projects that engage late in design may access technical assistance, but PA cost sharing is limited.

Program Subcomponents

Charrettes

The PAs offer all Path 1, Path 2, and early engaging Path 3 projects as an opportunity to participate with a PA-provided technical assistance vendor in an energy charrette, which is an energy and carbon focused brainstorming session. A project team participates with the PAs and the technical assistance vendor in this deep-dive session where PAs review the incentive opportunity and participation process, and technical assistance vendors walk through each energy system in detail and review strategies to reduce EUIs and promote electrification.

Design-based technical assistance

The PAs offer technical assistance a little differently in each program path, but the fundamental principle is the same. The PAs provide expert support to help project teams make decisions about equipment and systems and understand their energy and carbon saving opportunities. Technical assistance vendors typically help conduct the design charrettes mentioned above and provide mid-design quantitative feedback to aid in customer decision-making and encourage deeper savings. These vendors also provide final reports that document the energy and carbon savings customers can expect and that PAs will claim. The PA and technical assistance vendor combination also weaves in information for customers regarding other energy-related offerings, such as EV-support and ADR. The PAs see their role more broadly as brokers of information, Mass Save-related or otherwise, that can help customers make decisions on energy or carbon-saving equipment and systems. To that end, PAs make customers aware of IRA tax credits and deductions that, in combination with Mass Save support, can sway decision makers.

Customer incentives

The incentive structure varies by path. Base incentive rates for both Paths 1 and 2 are based on a dollar-per-square-foot framework to intentionally give customers clarity early in design on the incentive potential for their project and to holistically drive energy reduction and decarbonization. The dollar-per-square-foot incentive framework contrasts with offering incentives based on predicted energy savings which take longer to calculate, especially for large, complicated projects. Since Path 3 is not an EUI-based offer, the incentives for that path are measure based and are all semi-custom. The PAs offer set \$/kWh and \$/therm rates in Path 3. However, since most Path 3 projects have fairly simple energy systems, an energy model is not required in this path, and technical assistance vendors can provide much faster spreadsheet-based energy savings calculations the PAs can use to assign incentives and influence projects.

In all three paths, the PAs offer the per-ton heat pump incentive rates, which also provide upfront clarity to customers regarding incentive potential so that they can use incentive support to make early design decisions.

PAs also offer a Verification Incentive for Path 1 and Path 2 projects. These incentives are intended to support the effort needed to evaluate building performance once construction is complete and compare that performance to predicted or modeled EUI performance. Specifically, Verification incentives support fees associated with having a vendor pull equipment trend data and building energy use data at multiple intervals after construction is complete. Vendors analyze the data and coordinate corrective action with subcontractors, commissioning agents, and the owner. This work is intended to bring operational results in line with predicted or modeled expectations. It is a tool that the PAs and project teams can use to ensure persistence of savings.

Codes & standards

Also included within the New Buildings & Major Renovations program is the Codes and Standards Compliance and Support (“CSCS”) Initiative. The CSCS Initiative includes education and outreach to the building industry to improve compliance with the current energy code and technical support to accelerate the development and adoption of more efficient codes and standards.

Program Barriers

Training and experience

Architects, engineers, and contractors are not all experienced in delivering all-electric, energy-efficient buildings. The New Buildings & Major Renovations program tackles this barrier with its pathway incentive support and technical assistance, aiding project teams as they gain experience one project at a time. In addition, PAs have provided education, training, and case study opportunities that improve overall market actor knowledge and broadly increase awareness of and confidence in newer technologies and design practices. PAs have developed and delivered many educational and training sessions in collaborating with other influencers, such as the MassCEC, Built Environment Plus, the Massachusetts School Building Authority, and several other organizations.

Increased first costs

Customer incentives are designed to offset a significant portion of the incremental capital costs associated with fully electric, low EUI buildings compared to baseline buildings.

Higher operating costs with electricity

The higher operating costs of even efficient electric buildings relative to fossil fuel buildings is a fundamental barrier to full market transformation.

Skepticism regarding accessibility of Inflation Reduction Act tax credits

The federal IRA tax credits, particularly for ground source heat pumps, are a game changer in the new construction space, particularly with the new direct pay option that makes tax credits accessible to non-tax-paying entities. K-12 schools, other state and municipal customers, and nonprofits may now access very sizable tax credits once a ground source heat pump system is placed in service. Combined with PA support, the IRA tax credit makes ground source heat pumps financially viable. However, the detailed requirements laid out in the IRA, the slow roll out of regulatory guidance, and the fact that customers in the region have not yet seen these tax credits flow to a traditionally tax-exempt entity mean that project teams are hesitant to rely on them as they make HVAC system selection decisions today.

The PAs' role in this space is to make sure that the New Buildings & Major Renovations program aligns with the IRA tax credits and that customers understand their availability. The PAs have developed workshops alone and in coordination with other market influencers (e.g., MassCEC, Built Environment Plus, etc.), bringing in tax experts who provide as many details as are available on how to calculate potential tax credit dollar amounts and how/when to access and file for the credits. The PAs also raise IRA tax credits in design charrettes and advise project teams to include IRA tax credits as well as Mass Save incentive support into life cycle cost analyses that inform decision making.

Program complexity

Some customers do not wish to have extended, multi-year relationships with the PAs and may prefer an energy conservation management-based engagement that is quick and easy. While the program is fundamentally a holistic offer centered on looking at all building energy systems and optimizing them as an integrated unit, the PAs understand that some customers, especially those with small projects, may not desire that type of detailed and often lengthy engagement. With that in mind, PAs continue to make Path 3 available. Path 3 is an energy conservation measure-based path where customers can participate a la carte on a measure-by-measure basis. In Path 3, customers can seek incentives for just one or multiple measures. The PAs recently added a dedicated application for heat pumps to facilitate engagement with projects under 20,000 sq. ft. where customers may only seek heat pump incentives.

How the Program Impacts Plan Priorities

The PAs seek to deliver the New Buildings & Major Renovations program to any available and eligible new buildings and major renovations, combing construction data bases, mining industry newsletters, and building relationships with architects, engineers, developers, and customers to do so. The PAs require participating new buildings to be all electric. Major renovations may still include some gas equipment; however, PAs offer sizable heat pump incentives on a per-ton basis for all program projects to move customers toward full electrification regardless of project type. The new building electrification requirement deepens PA commitments to building decarbonization. In addition to focusing on space heating heat pumps, the PAs also emphasize heat pump water heaters as that equipment also reduces EUIs for Path 1 and 2 and can garner an equipment-based incentive in Path 3 as well.

The Massachusetts PAs guide New Buildings & Major Renovations participants to EV charging and demand response programs during the charrette process, de-siloing the various offers and bringing them together for customers in a centralized fashion.

Strategic Enhancements

Enhancement #1: Promoting all-electric new buildings

As noted, in a move that positions the PAs to unambiguously focus on zero carbon new buildings, all ground up new construction projects participating in the New Buildings & Major Renovations program are required to be fully electric for space and ventilation air heating, domestic hot water heating, and kitchen equipment with only limited exceptions for natural gas connections. Even for the largest exception (for highly ventilated buildings, such as lab buildings), the PAs require a minimum amount of heat pump space and ventilation air heating electrification. Other exceptions to the prohibition on natural gas use are for limited gas use situations that are deemed necessary or where there are no alternatives (examples include natural gas necessary for research purposes in labs and natural gas for emergency generation in buildings designated as emergency facilities). The program shifts to prohibit natural gas use in participating new buildings started in January 2024. Major renovations may still include some natural gas equipment.

Enhancement #2: Embodied carbon

Embodied carbon is a term for GHG emissions released during the upstream stages of a product's life cycle. Those stages typically include extraction, production, transport, and manufacturing. As new buildings become more energy efficient, embodied carbon will represent a growing share of total building emissions. According

to Architecture 2030, embodied carbon is on track to represent the majority of carbon emissions from new buildings and infrastructure between now and 2030.¹³⁵

Energy efficiency program administrators have not widely adopted strategies to reduce embodied carbon. By developing a new construction/major renovation that offers rewarding reductions in embodied carbon, the Mass Save program administrators will demonstrate national leadership in innovative program design while offering significant value to customers and design teams that reduce embodied carbon emissions.

There is growing interest globally and locally in tackling the challenge of embodied carbon. States like California, New York, Washington, and Colorado have enacted “buy clean” laws that require the selection of lower-carbon materials in public buildings.¹³⁶ States are also addressing embodied carbon through the energy code (Vermont) and building code (California). DOER incorporated measures to address embodied carbon through the energy code. In 2023, Cambridge amended its Article 22 Green Building Requirements to require whole building lifecycle assessment (“WBLCA”)—a process for estimating embodied carbon emissions—for nonresidential buildings above 50,000 square feet. In fact, there are a number of cities and towns in the Commonwealth that have recognized the importance of developing policies around embodied carbon. These communities have recognized that policy is an essential step towards creating the scale of action required to rapidly reduce embodied carbon in new construction. In addition, MCAN introduced multiple pieces of legislation pertaining to embodied carbon in the 2023-2024 Legislative session. In 2023, MassCEC launched the Embodied Carbon Reduction Challenge, which attracted submissions from 14 projects. All of these efforts together indicate that the Massachusetts market is ready to take meaningful action to reduce embodied carbon.

There are a variety of potential strategies that the PAs could employ in the Plan to induce reductions in C&I sector embodied carbon. In developing an offer, the PAs weighed multiple factors, such as ease of participation, dovetailing of the offer with existing tools (e.g., LEED) and local policies (e.g., reporting requirements in Cambridge and Newton, and in development elsewhere), clarity of incentive opportunity, availability of clear and reliable baselines from which PAs can determine carbon savings, and probability that the offer will induce action.

¹³⁵ Architecture 2030 web source, “[Why the Built Environment?](#)”, accessed Jun. 14, 2024.

¹³⁶ Carbon Leadership Forum (2022). [Implementing Buy Clean](#).

For the New Construction & Major Renovations program, the PAs will offer a materials-based approach to embodied carbon reduction that encourages project teams to select lower GWP products within the highest-impact material categories: concrete, steel, flat glass, insulation, and gypsum board. The PAs will offer customers incentives on a dollar per kilogram of CO₂e reduction basis for selecting lower GWP products on a like-for-like quantity basis. The five material types were selected for consideration in the program design because (1) they have the greatest savings potential, (2) Environmental Product Declarations (“EPDs”), which are the backbone of embodied carbon accounting, are readily available for these materials, (3) there is alignment in choosing these materials with national and regional embodied carbon policy, and (4) there are recognized baseline averages for materials in these categories that can serve as program baselines for determining savings and offering incentives.

The PAs would use values established by industry norms to create suitable material baselines, like the General Services Administration (“GSA”) Buy Clean Initiative, CLF (Carbon Leadership Forum) 2023 Material Database, and the New Buildings Institute Embodied Carbon Code Overlay. The PAs expect to use a one-year measure life for savings claimed in this offer.

In addition to the materials-based framework for embodied carbon described above, another strategy for inducing reductions in embodied carbon is through a whole building approach. While a whole building approach has greater potential for savings compared to a materials-based approach, the accounting for whole building embodied carbon is still in its infancy, and there is no agreed upon methodology for establishing baselines in Whole Building Life Cycle Analysis (WBLCA). However, WBLCA is directionally where policymakers and advocates are heading. Also, WBLCA uncovers opportunities to reduce embodied carbon that a materials-based approach will not (i.e., designing for less quantity of a certain material). Thus, the PAs will offer a design team incentive adder for WBLCA.

Finally, the PAs recognize that reusing materials represents an important opportunity to save significant amounts of embodied carbon that the materials-based approach would not induce itself. As a result, the PAs will also offer a design team incentive adder that would help teams look at the feasibility of building material reuse, focusing initially on building structure and enclosure. Research indicates that 5.77 kgCO₂e/sq. ft. is achievable by replacing construction materials with lower embodied carbon materials.

Enhancement #3: Grid-interactive efficient buildings

The PAs are developing an approach to promote grid-interactive efficient buildings that can curtail and/or shift load during demand events. The best time to enable these strategies for a new building or major renovation is

during design. The PAs intend to promote early consideration of solar interconnection and battery storage alongside other curtailment strategies. Enhanced technical assistance will feature prominently in this offer of support.

Enhancement #4: Education and training

The long-term strategic goal of the New Buildings & Major Renovations program is that all new buildings will be designed as zero carbon and low energy use buildings. The program dovetails with code advancements in the Commonwealth that are moving in that direction. Programmatic support historically has underpinned municipalities' willingness to adopt and maintain the Stretch Code and more recently the Specialized Energy Code. Program support increases customer ability to implement the added requirements that Stretch and Specialized Codes present. As the PAs look ahead to a probable net zero base code in the future, PAs plan to continue to support individual projects on a case-by-case basis, but also help ensure that the design, construction, and contractor community is prepared and has experience with design and construction practices that will become necessary and commonplace by 2030 and beyond. To this end, the PAs will explore opportunities during the 2025-2027 term to identify training needs for the design and construction community and will work toward partnering with outside organizations to deliver training that fills those needs.

Figure 32: New Buildings & Major Renovations Program Incentive Levels

	Path 1: Net Zero & Low EUI Buildings	Path 2: Whole Building EUI Reduction	Path 3: High-Performance Buildings
Objective	Promote and support fully decarbonized buildings that seek net zero or net zero ready status with ultra-low EUI as measured after a year of operation.	Promote and support decarbonized buildings with the greatest percent EUI reduction possible by setting a design based EUI target, working with project teams toward that target, and ensuring buildings are built in accordance with the design.	Promote and support decarbonized and energy efficient buildings with a nimble measure-based approach to savings and incentives.
Eligibility/target building sizes	Building projects that have 10,000 sq. ft. or greater heated and cooled space. Customers are interested in full electrification of their building, wish to set an EUI target, and	Building projects that have 50,000 sq. ft. or greater heated and cooled space. Projects in this path cannot meet the ultra-low EUI targets required for Path 1 or are projects where future loads are unknowable such that an absolute EUI target	Projects of any size that engage too late to participate in Path 1 or 2, projects where customers are only interested in or only qualify for incentives for one or two measures

	Path 1: Net Zero & Low EUI Buildings	Path 2: Whole Building EUI Reduction	Path 3: High-Performance Buildings
	want to measure performance in operation.	cannot be determined, and a percent reduction metric is more suitable.	(e.g., heat pumps), customers who do not wish to set and work toward a comprehensive EUI target, projects where process loads savings offer the main opportunity for incentives, tenant fit outs.
Fossil fuels allowed?	No. The only exceptions are for emergency generation or propane in science labs.	New buildings must be fossil fuel free unless they meet limited exceptions.	New buildings must be fossil fuel free unless they meet limited exceptions.
Example project types	Municipal buildings, university academic buildings, dorms, hotels, offices.	Vocational Technical K-12 schools that cannot meet the ultra-low EUI targets for Path 1, speculatively designed commercial real estate projects where future tenants are unknown (e.g., lab/office projects), hospitals or other buildings with unpredictable or unknowable process loads.	Cannabis or other grow facilities, a 5,000-sq. ft. new building where customer solely wants a heat pump incentive, lab, or retail/restaurant fit outs in new buildings or where there is a change of tenant in an existing building, buildings of any kind where the customer engages with PAs late in design.
Construction incentives	Offices, K-12 Schools, libraries, hotels, and public safety buildings have two tiers available to them and can achieve either \$1.50/square foot or \$2.00/sq. ft. depending on the tier. All other building types require a project specific EUI target and are eligible for the \$2.00/sq. ft.	Incentive rates based on percent reduction brackets vary by building type. • Tier 1: \$1.25/sq. ft. • Tier 2: \$0.75/sq. ft. • Tier 3: \$0.50/sq. ft. • Tier 4: \$0.35/sq. ft.	All measures other than heat pumps supported at \$0.35/kWh and \$2.00/therm.

	Path 1: Net Zero & Low EUI Buildings	Path 2: Whole Building EUI Reduction	Path 3: High-Performance Buildings
Heat pump incentives	• Air source heat pumps: \$800/ton • Variable refrigerant flow (“VRF”): \$1,200/ton • Ground source heat pumps: \$4,500/ton	Same	Same
Embodied carbon incentive	Customer incentives: \$0.06/kgCO₂e basis Design team incentives - \$2,000 per project with availability of up to \$10,000 per project to support WBLCA and/or building reuse feasibility analysis targeting at least 75% or greater structure and building enclosure reuse. Most incentives will be committed during 2025-2027 term but will not be paid until the following term due to long project timelines in C&I new Construction.	Same	Same
Post-occupancy performance Incentives	\$1.50/ sq. ft. plus additional 5 cents per sq. ft. for each EUI point below the target EUI.	N/A	N/A
Verification incentives	50% of fee up to \$10,000.	50% of fee up to \$10,000.	N/A

	Path 1: Net Zero & Low EUI Buildings	Path 2: Whole Building EUI Reduction	Path 3: High-Performance Buildings
Technical assistance	50% of fee up to \$10,000 for net zero vendor support in early design, 100% coverage of fees for modeling necessary to document PA savings, and 100% coverage of fee associated with true up of energy savings upon collection of operational data after a year of occupancy.	75% of fee up to \$20,000 supports the services of an energy expert who provides advice during design, offers mid-design feedback, and develops the energy model that will inform customer decisions and determine the project's percent EUI reduction for incentive purposes.	Up to \$7,000 of the fee covered without customer cost share if project team engages PAs early in design and project exceeds 10,000 sq. ft. Up to \$4,000 of the fee covered with late engaging projects that are still in design and are 10,000 sq. ft. or greater. Fees in excess of these amounts split evenly between customers and PAs.

3.3.2 Existing Buildings

The Existing Buildings program provides incentives, technical assistance, and other services to help customers reduce their energy costs and decarbonize their operations. All non-residential customers are eligible, including commercial, industrial, institutional, multifamily, and public agency customers, with a focus on mid-to-large customers. The program offers a menu of incentives and technical services to encourage building owners to replace existing equipment with more efficient options, replacing fossil-burning equipment with electric alternatives, implementing energy-saving facility improvements, optimizing systems and processes, and deploying other strategies to reduce energy consumption and GHG emissions. The program is designed to guide and support customer purchasing decisions through clear and simple program requirements, meaningful and dependable incentives, and technical support.

Program Design

The Existing Buildings program offers prescriptive incentives for more common and scalable technologies, and custom incentives when a unique characteristic of the customer, site, or process requires project-specific analyses of energy savings and installed costs. All cost-effective opportunities to reduce natural gas, delivered fuels, and electric energy and demand are considered, as allowed by law.

Customer engagement process

Customers typically begin the engagement process in three different ways:

1. PA reaches out to customers to explore opportunities.
2. Customer reaches out to PAs to explore opportunities.
3. A vendor or other trade ally initiates the engagement process.

Once the engagement process has begun, the details of the engagement vary widely depending on the needs of the customer. The first step is typically an assessment of a facility, a system, or a specific measure that a customer or vendor is seeking to implement. Specific study details are described in the Technical Assistance section below. The customer or vendor then completes an incentive application form, and the PA typically provides a letter committing an incentive to the customer, provided the customer completes the project within a specified period. The customer then works with a vendor to complete the project, after which the PA inspects the project to ensure it conforms with all stated requirements. In some cases, the PAs will also monitor the project to verify operation or conduct a follow-up visit to identify and correct any issues with project operation. Then the PA pays the incentive.

Prescriptive Incentives

The Existing Buildings program incentivizes measures that provide predictable energy savings relative to industry standard practice and result in cost-effective savings over the life of the measure. Customized incentives are available for the installation and optimization of an extensive list of measures, including lighting with controls, HVAC equipment and controls, motors and variable frequency drives, spray valves, steam traps, and electric forklifts. Prescriptive incentives often serve as the customer's initial exposure to the PAs' efficiency programs and may lead to more complex custom projects. Prescriptive measures have demonstrated predictable savings across a wide universe of applications and can therefore be offered to customers through a simplified application and approval process that relies on deemed savings calculations.

Custom Incentives

The program also offers incentives for projects implementing measures that are not covered by the prescriptive offers, meaning there are project-specific savings calculations. Due to the successes of the C&I incentive programs over the years at transforming the market, especially with lighting, to continue helping customers save energy and reduce their GHG emissions, the PAs will need to pursue an increasingly complex

measure mix in the 2025-2027 term. Many of these measures require site-specific evaluations to assess their merit and energy saving potential. The PAs evaluate the energy impacts and costs to implement these projects to determine appropriate incentive levels for custom projects. Where PAs see similar custom projects repeatedly, new prescriptive offerings may be developed to better support these measures and improve the customer experience when implementing them.

The PAs provide customers with access to expert technical assistance, using both their own technical staff and preferred engineering vendors (independent energy advisors) drawn from a pool of private-sector engineering consultants that meet the PAs' criteria for expertise and experience. Technical assistance is leveraged to help customers wherever they are in their energy saving and decarbonization journey, from high-level planning for the future to scoping studies that quickly assess the feasibility of efficiency and decarbonization opportunities at a site to detailed calculations and reporting on impacts of implementing specific measures.

Delivery Pathways for Existing Buildings

Serving medium and large customers - Managed account approach

The managed account approach is focused on learning the customers' unique needs and opportunities and connecting customers to the resources and offerings best suited to their circumstances. All PAs offer managed account services for some sub-set of larger C&I customers and municipalities. Regardless of size, any customer participating in the Existing Buildings program is assigned a representative to help them navigate the application process from concept through implementation.

The PAs have built up internal staff with direct experience and engaged vendors with expertise in the manufacturing and industrial space, commercial real estate, healthcare, hospitality, grocery, institutional, and other distinct business segments. Specialized vendors and program staff help customers identify and solicit pricing from contractors, determine incentive levels, complete savings calculations, manage program documentation, and provide updates on incentive status. For the 2025-2027 term, the PAs have jointly procured a deeper bench of these specialized "project development" vendors. The PAs have also built networks of pre-approved design and installation contractors. These services are especially employed by municipal customers that receive Green Communities funding. The PAs have continued to learn the language of their customers, improving the experience for customers while deepening their ability to work with facility managers across the spectrum of sectors and segments to identify, scope, and specify projects.

Memorandum of understanding

For the largest customers, including large manufacturers, university campuses, cities, and large healthcare systems, the PAs encourage the use of multi-year memorandums of understanding (“MOUs”) to facilitate longer-term efficiency projects that achieve greater depth and comprehensiveness and align with customer long-term goals and vision. The MOU identifies shared goals, defines the relationship between the customer and the PAs, and outlines a plan to achieve the shared goals. It may also specify incentive structures. These large customers have resources and management-planning horizons that allow for this more intensive shared partnership. Often, there are larger complex opportunities available in these customers’ facilities that offer significant energy and cost savings opportunities. The maturity of the relationships and the multiple projects completed with these larger customers over preceding plan periods means much of the efficiency savings potential from these customers' facilities may already have been secured. However, the relationship continues to help these customers pursue measures that can reduce the amount of fossil fuels burned at their facilities.

The success of MOUs translates into savings for these large customers. In addition, the creative and innovative approach that is inherent in shared explorations and project development with these large customers provide the PAs with insights that can be applied to medium-sized and smaller customers in the same segments whether through the Account Management pathway or a tailored segment-delivery path. There can even be payoffs for businesses that use the Small Business pathways as new technologies are proven in the field and are added as prescriptive offerings to turnkey delivery.

Incentive application forms

Customers must complete the incentive application forms for them to receive an incentive. The PAs designed these forms to be simple and clear to allow customers to easily submit the required information needed for the Program Administrators to provide incentives. These forms set project eligibility requirements, collect customer/vendor/project information, establish program rules, and convey important terms and conditions related to program participation. The PAs update these forms regularly to continually improve their effectiveness and ease of use. The measures covered by the Existing Buildings program are processed by internal staff or as outsourced by individual PAs.

Incentive application forms are completed prior to commencement of measure implementation of energy efficiency or decarbonization measures. After the completed form is submitted, the PAs will review and address any issues and provide an official commitment to provide an incentive on the condition of completed work. For measures whose impacts depend on proper accounting of existing conditions, the PAs may opt to conduct a site inspection. Once the measures are implemented, the customer will notify the PA by

resubmitting the completed incentive application form, signing the section affirming measure installation and noting any changes that may have occurred. The PAs will confirm measure implementation through document review and site inspections as needed. The PAs will then notify the customer and pay the incentive.

Customers seeking custom incentives would complete the custom application form. This form requires a written project description including a detailed write-up of the baseline conditions as well as the conditions of the proposed design. The energy and demand impacts from implementing the measures, the non-energy impacts (e.g., maintenance cost savings), and implementation costs are also requested on this form.

Additionally, the custom application includes a Minimum Requirements Document requiring the submitter to describe in detail what equipment must be installed, and the operational parameters needed to satisfy the requirements of the custom project implementation. The operational parameters may include the sequence of operation as well as any trended data or metering that may be required after installation to demonstrate proper implementation. The Minimum Requirements Document provides the customer with clear instructions of what must be implemented and verified to realize the project savings and receive the custom incentive. All cost-effective energy savings measures are considered as a custom incentive. Custom incentives are determined by the PAs after evaluating the installed costs, energy savings, and GHG emissions reductions relative to a project benefit-cost ratio screening that considers project costs, energy and GHG savings, and non-energy savings impacts.

Projects seeking prescriptive incentives must complete the relevant prescriptive application form. Prescriptive application forms include a collection of simple, repeatable measures. These forms require a simple set of inputs to determine the incentives available for the project. A list of prescriptive measures in the Existing Buildings program is provided in the figure below. The PAs are constantly evaluating the measures offered through the program and will adjust incentives and remove or add measures as required to meet market needs.

Non-energy reducing GHG saving measures

The PAs are committed to helping customers reduce site energy consumption through energy efficiency and electrification of space heating and other end uses as this remains the most effective path towards reducing GHG emissions in the built environment. Concurrently, the PAs are uniquely positioned to support other air pollutant reduction strategies from customer's facilities. These efforts allow the PAs to remain a trusted partner for customers searching for near-term decarbonization solutions, especially for those without a feasible path toward electrification in the short term. The PAs will offer three measures for existing buildings in

the 2025-2027 term that may/or may not reduce site energy use but will result in significant reductions in GHG emissions per dollar of spend.

1. **Carbon capture, utilization, and sequestration.** Carbon capture refers to technologies that capture CO₂ directly from the exhaust stream of equipment burning fossil fuels. This CO₂ can be liquefied and transported to industrial facilities to either be used in an existing process, such as in the beverage industry, or permanently stored in a medium, such as the concrete industry, where the CO₂ will never make it to the atmosphere. The PAs will target customers with significant barriers to electrification, particularly those with large or recently installed combined heat and power or fuel cell systems.
2. **Behind-the-meter gas leak mitigation.** The PAs will offer support to identify and repair natural gas leaks on the customer side of the meter. They will offer this measure to customers who have large natural gas distribution systems on their property and if the identification and repair of these leaks go beyond the customer's routine maintenance. While this measure will not affect the amount of natural gas consumed by fossil fuel-burning equipment at the site, it will reduce the amount of natural gas supply required at the site thereby providing energy savings. Natural gas is primarily made up of methane, which is estimated to be between 27 and 30 times more potent than CO₂, a byproduct of burning natural gas, in terms of global warming potential.¹³⁷

Gas leaks are identified through a survey using portable infrared lasers and optical gas imaging cameras. Leak rate is quantified through use of an optical-based high-flow natural gas sampling device, which pulls air from around the gas leak to measure flow rate and methane concentration. Engineering data (including direct measurements of pipe diameter, air/gas pressure) and facility gas usage can be used to corroborate and calibrate leak results from the sampler equipment. After the survey is completed, leaks are repaired through welding broken pipe or replacing broken pipe segments or fittings. Custom incentives are paid per estimated leaked therm, reflecting energy savings achieved after leak repair, and capped at the cost to repair leaks.

3. **Refrigerant emissions mitigation.** Most grocery store refrigeration equipment relies on high GWP (Global Warming Potential) refrigerants. Because of the large quantity of refrigerant used in many grocery stores in refrigerated food displays, storage areas, and the amount of piping required to move the refrigerant through the store, grocery systems are particularly prone to refrigerant leaks. These leaks may represent over half of a grocery store's GHG emissions, even when they are compliant with

¹³⁷ See US EPA, "[Understanding Global Warming Potentials](#)," last updated Apr. 18, 2023.

EPA refrigerant leak rate requirements. During the 2025-2027 term, the PAs will support customers mitigating these significant emissions and improve system energy performance through two proposed measures.

First, the PAs will provide incentives for detailed leak detection surveys and leak repairs, intended to reduce leak rates for locations using high GWP refrigerants. Second, the PAs will offer incentives to customers to retrofit their high-GWP refrigerants with compatible, low-GWP alternatives. These retrofits may be completed with minimal changes to the existing system, equipment, and layout. To fully account for the emissions savings from these measures, the PAs will report the refrigerant emission savings as non-energy GHG savings with the Social Cost of Carbon applied.¹³⁸

Technical assistance

The PAs offer an array of technical assistance to help customers understand the impact of implementing energy efficiency and decarbonization measures at their facilities. This assistance is aimed at helping customers make informed decisions by exploring implementation costs, operating costs, energy savings, emission reductions, and other considerations. The PAs offer assistance for individual sites as well as for customers managing a portfolio of buildings.

- **Comprehensive building assessments.** The PAs will offer customers a high-level assessment of the current state of their building's systems and energy consumption. This assessment will identify potential energy efficiency measures and explore options for electrification of fossil fuel-burning equipment at the site. High level in nature, these assessments will provide customers with information to help decide how to proceed in reducing their energy consumption and carbon emissions. After completing a comprehensive building assessment, customers may implement measures by completing an incentive application form or proceeding with another technical assistance offering including EBCx (existing building commissioning) or a focused study.
- **Existing building commissioning investigation studies.** The PAs will offer support for EBCx to help qualified customers optimize the performance of their building's systems. The investigation process may be initiated as a result of a Comprehensive Building Assessment that recommends the customer pursue EBCx to identify potential opportunities to optimize the performance of HVAC equipment and

¹³⁸ On May 26, 2023, National Grid filed a petition for approval of a mid-term modification of its 2022-2024 Plan to support refrigerant emissions mitigation and quantify the benefits using global warming potential as the social cost of carbon. Additional detail on refrigerant emissions mitigation can be found in that filing.

controls, lighting and lighting controls, hot water systems, refrigeration equipment, or other processes. All buildings will be pre-qualified before the PAs fund a full investigation.

- **Focused studies.** Focused technical assistance studies analyze the impacts of implementing single energy efficiency or decarbonization measures. They provide a detailed description of the affected building systems including the existing and/or baseline conditions to which the measures will be compared. Energy savings, implementation costs, and operating cost impacts are presented to give the customers confidence to go forward with implementation. These studies also provide the necessary components for completing a custom application, including the Minimum Requirements Document detailing precisely what needs to be installed and how it must be operated to realize predicted energy savings and secure an incentive. The results of a focused technical assistance study can be used to complete a custom incentive application form.
- **Specialized studies.** The PAs offer specialized studies for specific measures such as compressed air leak, steam trap repairs, commercial refrigeration, and other industrial processes. Specialized studies provide benefits to the customer by identifying niche energy saving opportunities, often providing a streamlined path towards implementation and incentives.
- **Portfolio prioritization plans.** The PAs will offer high-level cost-efficient studies to help customers prioritize buildings within their portfolio for electrification. These plans will leverage remote audits or brief site visits along with billing data and information provided by customers about the age and condition of key building components to quickly determine where the customer should focus their decarbonization efforts in both the near and long terms. The completion of a portfolio prioritization plan will often lead to more in-depth comprehensive building assessments and EBCx studies at one or more buildings within the portfolio.
- **Decarbonization roadmaps.** The PAs will offer support to customers taking a long-term approach to reducing the GHG emissions at their buildings, including those motivated by Boston's BERDO or other similar ordinances. Larger commercial buildings cannot be electrified in a cost-effective manner without proper foresight and planning. Generally targeted at customers with a portfolio of buildings, these roadmaps may also be available for customers with a single complex facility. This is a more extensive effort than the portfolio prioritization plans, requiring in-depth site assessments and collaboration with the customer to ensure sustainability goals remain in focus.

Customers engaging in these roadmaps will often explore decarbonization strategies not directly incentivized by the Program Administrators, such as the installation of onsite renewables or

purchasing renewable energy credits to offset their emissions. The PAs recognize the importance of exploring and including these strategies to paint a complete picture; however, the PAs' support will be limited to investigating those strategies that align with the objectives of the Existing Buildings program. Following the completion of a roadmap, customers may engage in existing building commissioning, a focused or specialized study, or move directly to implementation through the Custom or Prescriptive pathways.

- **Custom express calculators.** The PAs offer custom express calculators posted on MassSave.com. These calculators provide insight into the energy savings derived from implementing or optimizing equipment or sequences of operation. By minimizing and standardizing the input required to derive energy savings outcomes, there is easier access and understanding of the parameters driving the energy savings outcomes of custom projects.

The costs of studies that explore both electric and gas measures will typically be split between electric and gas PAs, eliminating the time and expense associated with conducting separate studies for electric and gas PAs, while ensuring data sharing between the two entities. More information about these technical assistance offerings can be found in Appendix G: C&I Technical Assistance Study.

Deep Energy Retrofit offering

The Program Administrators launched the Deep Energy Retrofit offering during the 2022-2024 term specifically to help C&I customers target and upgrade buildings with significant opportunity to reduce GHG emissions and save energy. The Deep Energy Retrofit offering operates as a complementary layer on top of the other offerings in the C&I sector (excluding the New Buildings & Major Renovations program). The offer provides participating customers with technical assistance, planning support, benchmarking, and an additional financial incentive to help them reduce their energy consumption and meet their climate goals. The Deep Energy Retrofit offer is available to most commercial customers with an existing building that meets program eligibility requirements.

Multifamily buildings and buildings participating in the Major Renovations path are not eligible. Buildings must be occupied and operational for at least one year prior to engagement with no planned changes to how the building will be used. Customers must have a strong motivation and a feasible path toward significantly reducing building energy consumption and the site GHG emissions to participate in the Deep Energy Retrofit offering. Customers will have five years to reach a 40 percent reduction in GHG emissions through the implementation of energy efficiency and decarbonization measures. Reductions due to onsite renewables will

not count toward reaching the Deep Energy Retrofit emissions reduction target. Also, customers installing new fossil fuel equipment are not eligible to participate in the Deep Energy Retrofit offering.

Strategic Enhancements

Enhancement #1: Simplify and standardize technical review processes

The PAs recognize the need to improve the technical review process, especially for custom projects. During the 2022-2024 term, the PAs captured feedback from customers and program vendors through the C&I Working Group, a custom process evaluation, and numerous other discussions on this topic. These discussions informed the PAs' efforts to improve the experience of customers and vendors participating in the C&I programs. The PAs have made strides on this front during the 2022-2024 term and will expand on this progress in the upcoming three-year term.

To support these efforts going forward, the PAs will establish a governing body within Mass Save to coordinate technical review practices across all PAs. The charter of this body will include standardizing savings calculation tools, engineering requirements, project documentation, and both pre- and post-installation inspections and savings validation processes. This work will be done with an eye toward improving the experience of customers and vendors participating in the Existing Buildings program by providing a consistent experience, developing guidance documents, and eliminating unnecessary efforts where possible. Specific focus areas under discussion include:

- Undertaking a statewide solicitation for technical services in 2024 to help ensure more consistent delivery of technical services and minimize duplicative efforts in the 2025-2027 term.
- Expanding the number of customer express tools used by all PAs and making these available to all program vendors and PA engineers on a common website.
- Standardizing Minimum Requirements Document guidelines, including monitoring practices, required documentation, and methods for system operating parameters.
- Establishing consistent pre- and post-installation inspection processes that improve customers' project outcomes while balancing the need to minimize the burden on customers.
- Forming a working group to improve project-level collaboration among engineers from different PAs in split electric/gas service territories, building on the work completed in 2024 in collaboration with the C&I Working Group.

Enhancement #2: Support existing building commissioning

EBCx is a collaborative, iterative process in which customers, contractors, and third-party commissioning agents identify the ways the building does not meet current needs and then address gaps in performance. Properly commissioned buildings can result in customer benefits beyond energy savings, including enhanced safety and operations and management. Existing building commissioning can directly address low to no cost improvements, as well as identify capital measures. Commissioning can be applied to all systems within a building but is particularly effective in improving performance of HVAC equipment and controls.

The PAs' EBCx offer will provide customers and Qualified Service Providers ("QSP") end-to-end guidance and support in their collaborative efforts to commission building systems. The offer will initially focus on HVAC equipment and controls, but the PAs intend to support a consistent process, which over time they can apply to other building systems such as envelopes, lighting, or compressed air.

The QSPs primary tasks will be to work with customers to document, investigate, and commission building systems, but they will also be key in supporting the customer and the PAs by providing expert guidance, and developing contractor ready scopes of work and energy savings estimates for each identified measure. The PAs will identify, train, and manage the pool of QSPs with the assistance of a procured third-party implementation vendor to ensure a consistent, high-quality experience for all participants. This vendor will serve as a single point of contact for the PAs and QSPs, assisting in coordination as needed. The PAs will also provide the QSPs with program materials such as savings calculation tools and an offer guidebook to streamline their work and promote best practices.

The PAs will identify customer candidates based on their energy usage, their existing system functionality, and commitment to the EBCx process. Qualified customer candidates will receive financial support from the PAs throughout their commissioning process, starting with up to \$2,500 per million kWh of customer consumption for a qualification study and \$25,000 per million kWh for an EBCx investigation. Customers with small electric usage, but significant gas usage may receive special consideration on a case-by-case basis. The PAs are planning to conduct EBCx at 150 to 300 facilities statewide during the 2025-2027 term.

Customers implementing measures that improve current operations will also be eligible for installation incentives of \$0.17 per kWh of electric savings and \$1.20 per therm of gas savings. The Program Administrators will process capital measures, such as chiller replacements, through other pathways and these measures will be eligible for the associated incentives. The PAs have capped total incentives for the EBCx investigation plus measure installation at 100 percent of the total customer cost, with 75 percent of costs for the investigation

paid upon completion of the EBCx investigation, and the balance paid upon verification of measure installation. Municipal customers in designated equity communities will be eligible for 100 percent of EBCx investigation costs upon study completion, like the PAs' Schools Initiative.

As an example of a typical customer participating in EBCx, a building with an annual consumption of four million kWh that generates 250,000 kWh of savings (about six percent savings) will be eligible for up to \$10,000 up front for their qualification study and up to \$75,000 for their full EBCx investigation directly after the investigation is complete. The EBCx investigation will provide a list of measures, as well as contractor-ready scopes of work that the QSP will share with contractors for implementation. The QSP and contractor will work together to implement and commission the measures. After the PAs have verified the measures, they will award the customer \$42,500 in installation incentives, plus the remaining \$25,000 for the investigation. In total, the customer would receive a maximum of \$152,500 in support.

Enhancement #3: Support long-term electrification planning

While the PAs have experienced growing success in electrifying smaller buildings, larger buildings are far more difficult and costly to retrofit with electric heating and hot water equipment. Doing so requires a long-term approach, with building upgrades phased in gradually. These often include electrical service upgrades, modifications to internal distribution and ventilation systems, and partial electrification achieved by replacing equipment nearing the end of its useful life. To make the most cost-efficient use of customer funds in preparing customers to electrify their buildings and help customers establish long-term decarbonization plans, the PAs will offer the decarbonization studies listed below.

Figure 33: Decarbonization Studies

Study Name	Objective
Comprehensive building assessment	Scoping study exploring both energy efficiency and electrification opportunities, as well as pre-electrification needs, for a single building.
Portfolio prioritization plan	Helps customers that own a portfolio of buildings (e.g., municipalities, real estate owners, universities, etc.) to prioritize buildings to potentially electrify, using a light-touch approach based on brief site visits.
Decarbonization roadmap	Conducts an in-depth assessment to help the owner of a large building or portfolio of buildings to meet carbon reduction goals, including an in-depth assessment of electrification needs and alternative strategies.

The PAs will typically cover the full study cost of comprehensive building assessments and portfolio prioritization plans up to a certain cap. Decarbonization roadmap support may be more variable given the variable scopes of these studies, but the PA support will not be greater than 50 percent of the study cost. At the PAs' discretion, they may increase the amount in specific circumstances, such as large complex facilities, more robust studies, or municipal customers in equity communities.

During the 2022-2024 term, the PAs began offering electrification scoping studies. These studies were designed to identify what measures would need to be taken to electrify a building's heating and hot water systems over the long term. The studies capture information on current HVAC and hot water systems, as well as electrical service capacity and demand, and anticipated building upgrades required to electrify. Beginning in 2025, the PAs will establish a more formal set of study requirements through the Comprehensive Building Assessment, as well as supporting planning efforts for customers with a portfolio of buildings through two different offerings.

Portfolio prioritization plans offer a high-level approach to helping customers establish a long-term, phased approach to electrifying their buildings. They will incorporate basic information, such as HVAC equipment lists and EUI benchmarked against similar buildings. These simple assessments can be a very cost effective way to identify a big-picture plan to decarbonize.

The Program Administrators will target decarbonization roadmap studies to municipalities in particular, though other customers who own portfolios of buildings in Massachusetts are eligible, such as real estate developers, colleges and universities, and retail and food service chains. In addition to the standard scoping study elements, a Decarbonization roadmap will recommend a prioritized approach to decarbonizing the portfolio based on current building performance (i.e., EUI), building characteristics, and estimated lifetime costs to electrify the buildings. Additionally, these studies will often:

- Assess the impact of other anticipated infrastructure changes that would impact site load and drive the need for electrical service upgrades, such as building expansions or EV charging stations. The PAs will coordinate this assessment with their utility EV and distribution planning teams as needed.
- Model GHG emission reductions throughout the period assessed by the decarbonization roadmap.

- Explore networked geothermal options for campuses or other clusters of facilities. The Department's Order in Docket D.P.U. 20-80-B notes district geothermal pilots as a decarbonization option should be deployed by local gas distribution companies.¹³⁹

The PAs will support a portion of the study costs. Customers may opt to expand their studies beyond the elements described above to explore other decarbonization strategies, such as onsite solar or renewable energy credits, however, the PAs will only fund the portion of scope described above.

Enhancement #4: Enhance measure performance and persistence

The PAs will continue to apply and expand methods for improving the performance and persistence of measures implemented by customers, particularly those associated with building controls. To ensure that improvements are thoughtful, data driven, and encourage project development and implementation best practices among PA staff, vendors, and contractors, the PAs will strive to further improve communication between the evaluation, implementation, and technical teams. The evaluation framework has produced hundreds of site evaluations, including detailed documentation of performance and persistence issues. The Program Administrators can leverage this information to identify systemic areas of further improvement for the Mass Save programs. Similarly, the PAs' implementation teams have tremendous depth of knowledge in what is required to develop and complete thousands of projects a year. The PAs will develop knowledge sharing practices to provide guidelines for improved awareness prior to, during, and after project development.

Based on what is currently known about program performance and savings persistence, the PAs have identified strategies to improve performance and persistence. The PA strategy divides the improvements into two parts: improvement of initial system implementation and improvement of savings persistence beyond initial implementation. The PAs support improving the quality of the initial system installation to improve the long-term performance and persistence of measures. Some strategies to improve the initial implementation include:

- **Identify and support best practices during installation of controls.** Evaluation and program research in other parts of the country have identified specific program requirements and implementation best practices that directly result in improved persistence for control and commissioning activities. Best

¹³⁹ See D.P.U. Order on Docket 20-80-B, p. 72, Dec. 6, 2023.

practices may include programming improvements, such as automatically resetting schedules and setpoints after manual overrides and limiting control system access via security features. These activities, if required or incentivized, can more regularly be built into the vendor's scope of work. The PAs will consider if and how these types of activities can be incorporated into program design and incentive structures.

- **Improved customer engagement.** The PAs have identified engagement as a key factor toward persistence. Customer engagement may be achieved by multiyear agreements, the adoption of new or updated standard operating procedures to include recurring operations and maintenance activities, and proactive program reminders to retro-commission systems that have participated in the programs in the past. To improve the performance of implemented projects and enhance customer understanding of the project parameters driving the energy savings, the PAs will incorporate additional incentives for vendors to train facility staff on the operation of their building systems. Clear and concise guidance will be provided to ensure the training and support documentation includes updates to operator manuals and vendor or manufacturer instruction on the operation of the equipment to support the persistence of the project energy savings. The PAs will provide support for projects impacting lighting controls, building management systems, and HVAC equipment-level controls to ensure longer term operational integrity.
- **Vendor and contractor training support.** The PAs will further enhance the workforce development opportunities available to vendors, contractors, and PA staff to include manufacturer and vendor training focused on verification and operational performance. The PAs will also continue to encourage the pursuit of other professional certifications like the Association of Energy Efficiency certifications and the Building Operator Certification. Finally, the PAs will also continue to subsidize and promote trainings for controls contractors, on topics like ASHRAE Guideline 36 training for Best-in-Class HVAC Control Sequences to develop industry and contract awareness around the implementation and operation of highly efficient building systems.
- **Improved quality and consistency of Minimum Requirement Documents ("MRD").** The PAs will continue to incorporate MRDs in statewide shared custom express tools and technically complex prescriptive offers, like the Building Management Systems offer. The PAs will also continue to strive toward standardized approaches to data collection and verification in custom project MRDs that are not associated with custom express calculators. The Program Administrators will continue to use MRDs as the standard by which they verify projects for completion and compare them for the persistence of energy savings. Additionally, the PAs will consider not just the quality of the MRDs, but the ways in

which their staff and vendors use the documents to ensure energy savings for the installation. The PAs will develop process improvements, as needed, to ensure MRDs are high quality and effectively used for project savings verification.

The PAs strongly believe that improvements to initial project implementation will help system performance, savings persistence, and customer satisfaction, but issues may be missed or may develop after the project is complete. Improving persistence in these cases requires incremental effort on the part of the PAs, customer, and vendor to both identify and resolve the issue.

- **Proactive identification of performance concerns.** The PAs will expand and standardize, where possible, strategies for identifying customers and measuring performance concerns after implementation. These strategies will balance the need for system performance with the costs and burden placed on customer facilities staff associated with strategies such as monitoring, as well as the delays to project timelines – the top concern cited in a recent evaluation of the custom process. The PAs will build off existing strategies used to ensure persisting performance, such as identifying large or complex projects that will require additional verification after implementation to ensure performance, or sampling past participants to analyze performance persistence and offer solutions to identified shortcomings.

Additional strategies to identify post-implementation performance concerns will be considered as well. The proposed EBCx process described above is another opportunity to identify system deficiencies. Through these and other strategies, the PAs will take a proactive approach to revisit past projects and work with the customer to review operation and performance. This effort would align with longstanding industry practices requiring the demonstration of persistent operation aligning with design intent in places like laboratories, pharmaceuticals, healthcare, and manufacturing facilities.

- **Corrective action pathway.** After project completion, if discrepancies are found between the intended design performance and the onsite operation, the PAs shall implement a workflow to needed corrective action with the customer and/ or vendor to maximize the benefit of the customer and customer investment. The corrective action pathway must consider how best to reengage vendors who are still under project warranty to return to the facility to make necessary adjustments for improved savings and customer outcomes.

Enhancement #5: Modifications to the Deep Energy Retrofit offer

In 2022, the Program Administrators launched the Deep Energy Retrofit offering to help customers achieve a substantial reduction in the GHG emissions at their site. Since then, there has been significant interest in the

Deep Energy Retrofit offer, particularly from municipal customers. The PAs aim to increase the impact of the offering by reducing the barriers to participation. First, the PAs will increase the Deep Energy Retrofit term from three to five years. The Deep Energy Retrofit term is the amount of time a customer has to implement the measures needed to reach the GHG emission reduction target. Early market feedback has indicated that a three-year term presents a challenge for customers interested in participating in the Deep Energy Retrofit offer. As previously mentioned, municipal customers are showing the most interest in this offer and these customers tend to have longer procurement and funding approval processes. It is important that the term is long enough to work with project development cycles and lead times for equipment deliveries. The PAs believe extending the Deep Energy Retrofit term to five years helps alleviate these concerns.

Additionally, the PAs are removing requirements that customers implement any specific measures to meet the significant 40 percent reduction in GHG emissions target. In the previous plan, the PAs required customers to electrify space heating in their building, either fully or partially. While not explicitly required, the PAs will continue to encourage electrification and will not allow customers purchasing new fossil fuel equipment to participate in the Deep Energy Retrofit offering. Similarly, the PAs are removing the requirement that customers either improve their building envelope (with insulation and/or air sealing measures) or reduce the ventilation load or its associated heating load with a heat recovery system. The Program Administrators expect that most projects taking advantage of the offer will need to incorporate these measures to reach the Deep Energy Retrofit target, but it may not be necessary in all cases, therefore it is being removed as a strict requirement for participation. The PAs are focused on delivering outcomes, namely a significantly more efficient building, and the PAs will support customers in their path towards achieving these deep savings in the manner that makes the most sense for their building.

Enhancement #6: Incentivize non-energy GHG-reduction measures

As detailed in the measure overview above, the PAs will expand the services provided to customers and the bounds of GHG reductions from customer interventions beyond just energy related GHG emissions reductions. This will create more opportunities to deliver value to customers and increase opportunities for claimable benefits, potentially at a far lower cost per ton of carbon equivalent than could be delivered through current means. Specifically, the PAs will offer the following measures:

- Carbon capture of point-source emissions.
- Behind-the-meter natural gas leak detection and repair on customer-owned equipment and gas networks.

- Refrigerant emissions mitigation.

Each of the interventions described above will be custom measures as they are highly site specific.

Enhancement #7: Improve trade ally support

The PAs have teams dedicated to partnering with distributors, contractors, and other trade allies involved in C&I projects. Current efforts to collaborate with distributors and heat pump installers are described under section 3.3.3: Equipment Rebates & Instant Incentives. PA-approved design and installation contractors have also been longstanding trade allies, and their role in the programs is described above in the ‘Program Design’ section. Enhancements to program design include:

- **Hiring dedicated liaisons for additional trade ally groups.** This includes: (1) mechanical, electrical, and plumbing firms, which are critical to electrification and HVAC upgrades, and (2) controls contractors and EBCx vendors. The role of these liaisons will be to recruit additional trade allies, educate them on relevant incentives and processes, help connect them with appropriate PA staff (namely customer-facing account representatives and technical staff), and solicit vendor feedback to share with PA program staff.
- **Expanding and diversifying the list of PA-approved design and installation contractors.** Historically, the majority of these PA-approved design and installation contractors (such as National Grid’s Project Expeditors and Eversource’s Business Energy Advantage contractors) have focused heavily on lighting. During the 2022-2024 term, the PAs made a concerted effort to recruit vendors with expertise in a broader range of technologies, encourage existing vendors to recruit staff with additional skillsets, and upskill existing staff in areas of focus. The PAs have prioritized skills in HVAC (including heat pumps), building and equipment controls, weatherization, and refrigeration, as well as decarbonization measures such as EV charging and solar photovoltaics, which are often of interest to customers even if they are not supported under the PA framework. These efforts will continue in the next term.
- **Better aligning C&I trade ally initiatives among the PAs.** This is particularly for National Grid’s Project Expeditor network and Eversource’s Business Energy Advantage network. Both networks provide a similar set of services and typically target mid-sized customers, especially municipalities.

Enhancement #8: Revise lighting strategy to phase out uncontrolled lighting

During the 2025-2027 term, the PAs will only support lighting controls (including those that are integral to a newly installed fixture which does not receive support) through the Existing Buildings program except for city-

owned municipal buildings. For municipal buildings, the PAs will continue to provide incentives to support lighting fixture upgrades, as well as lighting controls. The municipal exception is made to align PA incentives with DOER Green Communities funding and for the benefit of Environmental Justice Communities. Lighting incentives are now designed to cover the incremental cost between an uncontrolled fixture and a comparable fixture with controls.

Beginning in 2024, as recommended in an evaluation study, the PAs introduced a performance testing process for luminaire-level lighting controls in the downstream prescriptive program. This process is designed to ensure that controls work as intended, resulting in greater customer savings, coupled with a greater incentive amount to cover the cost of the additional work required. The effectiveness of this approach will be reassessed and potentially modified in collaboration with the evaluation consultants to maximize its effectiveness.

Enhancement #9: Support energy efficiency and electrification improvements in schools in equity communities

The Massachusetts PAs look forward to working with DOER and other stakeholders on collaborative initiatives to support decarbonization of schools in equity communities. The PAs will offer services targeted to schools and other public buildings, with an emphasis on equity communities, to support building decarbonization, with an energy efficiency first approach. The Program Administrators will work in collaboration with state agencies involved in funding schools, especially DOER, the MSBA, the MassCEC, and the Massachusetts Executive Office of Energy and Environmental Affairs Climate Office to align the various program priorities, program offers, participation requirements, application processes and other logistics to provide school districts and municipalities with a clear, streamlined experience accessing this much needed decarbonization support.

The school offering will be two-fold. First, the PAs will work with DOER and other agencies to fully decarbonize five schools in equity communities. The PAs intend for this step to serve as a model for supporting a clean, equitable transition for Massachusetts public schools and propose providing approximately \$47 million across multiple year terms. The PAs made this decision with the intent to use funding from other state agencies. PA funding will go toward:

- The creation of municipal energy manager roles in the communities where the five schools are located (provided such a role does not yet exist).
- Technical assistance, such as Comprehensive Building Assessments, to help determine the path to decarbonization.

- Engineering design assistance.
- Implementation of energy efficiency and electrification upgrades required for these buildings.

Furthermore, the PAs will support DOER's lead in the selection of the five schools, messaging to stakeholders, and recruiting other funding such as MA School Building Authority's heat pump program due to launch in 2025 and MassCEC's Green School Works grant due to launch in 2025.

Second, the PAs will launch an offer to assist all participating K-12 schools on their path to decarbonization that includes:

- A competitive grant to create municipal energy manager roles in communities that want to pursue school decarbonization and where such a role does not yet exist in a full-time capacity. The grant application will be launched in September 2024, with funding to commence in 2025, in coordination with the Community First Partnership so communities can plan for both program applications simultaneously, when needed.
- Portfolio planning and project planning assistance in the form of portfolio prioritization plans, comprehensive building assessments, and decarbonization roadmaps designed to work together with MassCEC's Green School Works program and be part of the PAs' increased technical assistance for commercial customers.
- Implementation funding in the form of an enhanced incentive for energy efficiency and electrification of school buildings that considers the budget constraints faced by school districts and municipalities.
- Staff training and educator curriculum, including both targeted training for facilities staff on building codes and decarbonization technologies for their school buildings as well as the braiding in of the K-12 Education program's professional development training and student workshops to maximize the opportunity for schools to integrate clean energy into learning outcomes and educational offerings while engaging in building upgrades.

Enhancement #10: Create a statewide database of technical assistance studies

The PAs will develop and operate a database to house technical assistance studies and opportunities identified by the studies and other basic customer information. The primary objective of the system is to better capture and share customer data. The electric and gas PAs sponsoring the study will each have access to the studies, as well as the customers for whom the studies were completed. The PAs are developing standard forms for certain technical assistance studies, making it possible to import data on measures identified and basic facility

information captured in these forms. This data can be searched in the future. To mitigate data security concerns, the database will not be connected to PAs' internal tracking systems and will abide by PAs' corporate data privacy and security policies. The data will also be static (i.e., will not be updated once it is uploaded into the database) to control the costs of maintaining the system and avoid duplication of existing efforts to track project data within the PAs' internal tracking systems.

Incentive Levels

Figure 34: Existing Buildings Program Incentive Levels

Measure	Application Form	Incentive
Daylight harvesting / occupancy sensor	Lighting—Systems and Sensors	\$60/unit
Interior integral dual sensor		\$60/unit
Low / High bay dual sensor		\$70/unit
Commissioned interior LLLC and NLC		\$120/unit
Outdoor occupancy and integral dual sensor		\$70/unit
Commissioned outdoor integral dual sensor with NLC		\$120/unit
Low-cost tuning measure	ESPO - Track: Low-Cost Tuning Measures	Varies
EBCx	EBCx and legacy ESPO - Track: Targeted Systems and Whole-Building and Process Tuning; Monitoring-Based Commissioning	\$0.17/kWh \$1.20/therm
Air cooled w/condenser, electrically operated / Remote condenser (split system)	Chiller	\$30 - 32/ton (base) \$2.20 - \$4.00/ton/unit (performance)
Water cooled, electrically operated, positive displacement		\$22 - 25/ton (base) \$4.50 - \$5.00/ton/unit (performance)
Water cooled, electrically operated, centrifugal		\$20 - 30/ton (base) \$4.50 - \$5.50/ton/unit (performance)

Measure	Application Form	Incentive
Air compressor	Compressed Air	\$100 - \$200/HP
Storage		\$2.75/gallon
Refrigerated dryer		\$5.25/CFM
Zero-loss condensate drain		\$2.75/drain
Low pressure drop filter		\$0.80/scfm
Engineered air nozzle		\$20/nozzle
Variable speed drive	Variable Speed Drive (New Equipment)	\$1,000 - \$2,600/drive
Variable speed drives	Variable Speed Drive (Existing Buildings)	\$1,000 - \$8,500/drive
Motors and variable speed drive	Motor and Variable Speed Drive	\$1,250 - \$10,950/drive
Building management system ("BMS")	BMS	\$0.10 - \$0.20/ft ²
Battery powered electric forklift	Commercial Battery-Powered Forklifts and Forklift Battery Chargers	\$6,000/unit
High frequency battery charger		\$550/unit
Custom measure	Custom	Case-by-case basis considering project cost, energy savings, and other project attributes

3.3.3 Equipment Rebates & Instant Incentives

The Equipment Rebates & Instant Incentives program focuses offerings on equipment and product categories that will benefit large groups of commercial, industrial, and municipal customers. An "incentive" is any financial support the PAs provide. It can take the form of an instant (point-of-sale) discount when purchasing energy-efficient equipment through participating equipment wholesalers or a rebate received after buying or installing approved energy-efficient items. In addition to offering rebates and instant incentives, this program encompasses market engagement, including relationship building with influential partners that sell and install these products, such as equipment distributors, who participate in the Instant Incentives offerings, and

installation contractors who participate in the HPIN. The PAs also engage in both statewide and PA-specific marketing and advertising efforts. As part of this marketing effort, the PAs will target delivered fuels customers, where electrification projects have more favorable economics than for gas customers.

Many customers engaged through the pathways described in the Existing Buildings program receive incentives through the Equipment Rebates & Instant Incentives program. All C&I measures in the statewide electrification pool are allocated to this core program. “Equipment Rebates” refers to customers receiving an incentive after the product is purchased, installed, and the rebate form is submitted to the rebate fulfillment vendor. In this program, “Instant Incentives” means energy efficiency measures in which the customer’s motivation is a prescribed reduction in product cost at the time of sale, at the location of a distributor, for the customer or its installer that is purchasing the product. For the Instant Incentive offerings, the PAs are not involved in the day-to-day sales consulting of energy-efficient products but play a higher-level role in managing the offer. For all equipment rebates and instant incentives processed, a certain percentage of all projects are inspected by a statewide third-party inspection vendor.

Program Design

The Equipment Rebates & Instant Incentives program is designed to overcome a variety of barriers. First, incentives are designed to lower the cost to the customer of purchasing and/or installing energy-efficient and program-eligible HVAC, domestic hot water, and lighting controls and lighting with integrated controls measures. The PAs designed the instant and prescriptive rebate delivery pathways to lower the upfront cost to the customer, which can be a barrier to adoption. Customers often have competing needs for their capital and base decisions on a calculation such as simple payback. Incentives drive down the cost portion of a decision-making calculation.

Another barrier to measure adoption, more specifically electrification measures such as heat pumps and heat pump water heaters, is lack of customer awareness and knowledge of these measures, how they operate, and their benefits. The HPIN and distributor relationships built as part of the Equipment Rebates & Instant Incentives program is therefore designed to educate and provide guidance to trade allies who are influential in the design and installation of energy efficiency and decarbonization measures. The PAs also provide information about energy-efficient measures on the MassSave.com webpage.

Lack of contractor comfort with installing heat pumps and heat pump water heater measures is also a barrier. To address and as described above, the PAs created an HPIN. Through the HPIN, the PAs will continue to provide a wide range of resources and services, including exclusive access to residential rebates and financing

for heat pump installations, training, marketing materials, sales tools, and periodic communications regarding important news and developments. Lastly, some heat pump installations can have a high cost with long paybacks. Customer education of the benefits and access to incentives and financing could mitigate some of these concerns.

How the Program Impacts Plan Priorities

The PAs are dedicated to enabling C&I customers of all sizes access to energy efficiency and decarbonization project measures and providing them with an improved experience. The availability of prescriptive and instant incentives for any size customer using an installation vendor of their choice enables the PAs to reach far more customers.

Program Eligibility Requirements

Qualifying customers (who are billed for energy efficiency fund charges) are commercially metered customers such as municipalities, school districts, colleges, institutional, and multifamily facilities with five or more units. All customers may participate in this program even if they could have chosen to participate in other programs such as New Buildings & Major Renovations, Small Business Turnkey Retrofit, or Existing Buildings as a custom measure (though they may not receive incentives from multiple programs for the same equipment).

Implementation / Delivery Pathways

Equipment Rebates offer

A third-party vendor implements the Equipment Rebates offer and is responsible for processing rebates after a customer has submitted a properly filled out rebate form. Customers must install equipment and/or weatherization materials that meet the PAs' specifications and/or on the Qualified Products List. As an illustrative example, the following is a portion of the Massachusetts TRM citing the International Energy Conservation Code for the baseline specification for an air source heat pump system or air conditioning system.

Figure 35: IECC Code (from Technical Reference Manual)

Equipment Type	Unit Type	Tier	Size Category	Category	Full Load Cooling Efficiency	Seasonal/ Part Load Cooling Efficiency	Heating Efficiency
Air cooled		1			12.0 EER	15.0 SEER	9.0 HSPF

Equipment Type	Unit Type	Tier	Size Category	Category	Full Load Cooling Efficiency	Seasonal/ Part Load Cooling Efficiency	Heating Efficiency
	Air conditioner or heat pump	2	< 65 kBtuh (<5.4 Tons)	Split or package system	12.0 EER	16.0 SEER	9.0 HSPF
		3			12.0 EER	17.0 SEER	9.0 HSPF

Subcomponents of Program

Prescriptive rebates

Prescriptive rebates are processed by a vendor chosen through an RFP process. The PAs design and distribute incentive forms via email, mail, and that are downloaded from MassSave.com. The incentive forms contain information about the program, spaces that need to be filled in by the customer, and they also act as marketing collateral. These forms list the requirements of the offerings, the incentive amounts, and which equipment is eligible for the customer to receive an incentive. A number of prescriptive rebates are available to commercial customers including heat pumps and other products as described in the chart below. A Qualified Products List is a list of products that have met the minimum qualification requirements stated by the PAs' applicable specifications for each measure type.

The PAs determine products' specifications in several ways: (1) results from an evaluation, (2) federal and/or state codes or regulations, (3) energy usage compared to an established baseline, and/or (4) publications from national and international organizations such as the International Energy Conservation Code. The rebate processing vendor processes rebate requests only for equipment that meets the program requirements. Sometimes submitted rebate documentation is not complete, and the vendor will need to contact the customer to request the missing information before processing the rebate payment.

A listing of prescriptive rebated equipment is as follows:

- Air source heat pumps
- Ground source heat pumps
- Variable refrigerant flow heat pumps
- Lighting controls and lighting with integrated controls
- Lawn equipment
- Weatherization for small buildings

- Controllable thermostats, aerators, steam traps, and shower heads
- Air curtains

Description of Measures to be Offered

Rebates

Heat Pump Eligibility

- Electric equipment displacing natural gas eligible only for commercial or industrial metered customers receiving natural gas service from a PA, including those in municipal electric territories.
- Electric equipment displacing oil, propane, or electric resistance eligible only for commercial or industrial metered customers receiving electric service from a PA.
- Equipment must be listed on the Mass Save Heat Pump Qualified Products List.
- A licensed contractor must install equipment.
- For heating equipment, equipment must be used for heating to supplement or replace existing oil, propane, natural gas, or electric-resistance systems.
- If existing fossil fuel heating equipment will remain in place, customer must either install an integrated control from the Mass Save Qualified Products List or must certify that an existing building control system is capable of operating both the heat pump and existing heating equipment in parallel, subject to the stated switchover temperature. Documentation of control sequence may be required.

Air Source Heat Pumps

Air source heat pumps extract heat (via a refrigeration process) from the air outside and distribute it inside. During warmer months, this process is reversed to provide cooling. These highly efficient systems can cut heating and cooling costs by up to 30 percent. Air source heat pumps can achieve 300 percent efficiency compared to fossil fuel equipment that can achieve 97 percent efficiency.

The types of air source heat pumps offered are:

- **Heat pump packaged terminal heat pump.** This unit replaces a Packaged Terminal Air Conditioning unit, which has electric resistance heat. The packaged terminal heat pump is a single heating and cooling unit often used in a hotel room. It is ductless and attached to an outside wall. Air flows from the unit to conditioned space.

- **Split system.** The compressor is outside the building and the refrigeration coil is built into the air handling (fan) equipment that is connected to the compressor by a refrigeration line. Air flows from the air handler through ducts to conditioned space.
- **Ductless mini-split system.** Compressors are outside the building and indoor fan units are connected to the compressor by refrigeration lines. Air flows from indoor fan unit to conditioned space.

Ground Source Heat Pumps

Ground source heat pumps extract heat from the ground during cold weather and distribute it throughout a customers' building. During the warmer months, this process is reversed to provide cooling. This system is the most efficient type of heat pump.

Variable Refrigerant Flow Systems

This heat pump serves as a great solution for businesses where installing ductwork is not possible. Using a single outdoor condensing unit to connect with one or more indoor air handlers, this option provides clean heating and cooling.

Lighting Controls and Lighting with Integrated Controls

With the decreased cost of LED lighting and the advances in technology, the PAs propose a higher level of installation of lighting controls and lighting with integral controls in the 2025-2027 term. With the market transformation of stand-alone LEDs, the PAs' focus will be on projects that can bring lighting controls to LED lighting retrofits decreasing the customers' lighting energy usage by 20 percent to 40 percent. These controls include the following:

- Remote-mounted occupancy sensors
- Daylight dimming systems
- Occupancy-controlled step-dimming systems
- Wall-mounted occupancy sensors
- Wall-mounted vacancy occupancy sensors
- Photocell sensors (lighting systems on 24/7)

Lawn and Tree-cutting Equipment

Battery-powered motors are more energy efficient, reduce carbon emissions, and typically require less maintenance than gas-powered equipment. The PAs offer incentives on equipment, including:

- Lawnmowers
- Leaf blowers
- String trimmers
- Chainsaws

Air Curtains

Air curtains covering large overhead doors can help a business save energy without interrupting operations. When overhead doors are opened to allow for deliveries or other vehicular traffic, valuable energy generated to heat the indoor space is lost to the outdoors. Air curtains turn on when the door is open, creating a seamless wall of air across the doorway opening. This prevents the mixture of indoor and outdoor air, keeping heat inside, saving energy.

Weatherization for Small Buildings

Insulation and air sealing work hand in hand to make a building more energy efficient and comfortable. By adding more insulation to a building and sealing drafty air leaks, customers can reduce heat loss and save energy in their building. For buildings under 8,000 sq. ft., the PAs offer incentives to upgrade insulation in attics, basements, and walls, seal air leakage in attics, and weatherstripping. The PAs will continue to engage with weatherization installers to ensure these rebate offerings are known and taken advantage of by customers. The PAs continuously review actual weatherization projects, and plan to increase this rebate square footage threshold to expand eligibility to more commercial and industrial customers. Weatherization for larger buildings is handled on a case-by-case basis outside of the Equipment Rebates offerings.

Instant Incentives

Instant Incentive offerings, also known as Midstream, are administered at the distributor level for the sale of eligible measures. Depending on the measure, the PAs require that the incentive be passed through to the customer in the form of a discount on their invoice. Select measures that are part of the lighting, HVAC, and domestic hot water sub-components of the Equipment Rebates offerings are offered in the Instant Incentives delivery pathway.

HVAC equipment

- Air conditioning
- Air source heat pumps (distributor stipend only, customer incentives are offered as an equipment rebate)
- Circulator pumps
- Dual enthalpy economizer controls
- Package terminal heat pumps
- Unitary air conditioners
- Water source heat pumps

Other Equipment

- Cold storage equipment
- Food service and refrigeration equipment
- Heat pump water heaters
- Vending machine controls

Lighting Controls and Lighting with Integral Controls**Heat Pump Water Heaters**

Heat pump water heaters use electricity to move heat from one place (surrounding air) to another (water inside the unit) instead of generating heat directly. Therefore, they can be two to three times more energy efficient than conventional electric resistance water heaters.

Vending Machine Controls

Vending machines typically use electricity 24 hours a day, even if no one is around to use them. Vending machine controls use motion sensors to automatically power vending machines down when the surrounding area is unoccupied and power them back up when a person approaches the machine. They also contain temperature sensors that power the vending machine back up as needed to keep drinks cold.

Food Service and Refrigeration Equipment

Old, outdated kitchen equipment can create high energy bills, more maintenance issues, and a bigger impact on the environment. Using energy-efficient equipment in commercial kitchens can improve energy performance without sacrificing service, quality, or comfort. In many cases, fossil fuel equipment can be replaced with electric equipment to increase efficiency and reduce carbon dioxide emissions. The PAs offer incentives on a variety of equipment, including but not limited to:

- Conveyor broilers
- Combination and convection ovens
- Fryers
- Dishwashers
- Refrigerators and freezers
- Induction cooktops

The PAs propose to continue to offer instant rebates on ENERGY STAR certified cold storage products. For participating commercial customers, this means more affordable, energy-efficient models and savings on operating costs. This includes the following measures:

- Lab-grade high-performance refrigerators, ranging from 6 to 44 cubic feet
- Lab-grade high-performance freezers, ranging from 6 to 22 cubic feet
- Ultra-low temp freezers, at least 6 cubic feet

Strategic Enhancements and Major Innovations

Enhancement #1: Incentivize a wider range of heat pumps

Many businesses currently have gas-fired packaged rooftop units and are also looking to pursue heat recovery. The PAs will ensure there is a product offering easily accessible to incentivize qualified rooftop units. Adding these units to the Qualified Products List will allow for easy access by customers and their trade allies to know which units qualify for the program. It is important to promote the roof conditions and existing distribution system to trade allies and customers, as other retrofit options are not typically economically and physically feasible. The PAs will actively promote these units in trade ally communications. The PAs are continuing to explore opportunities to create new prescriptive incentives for additional equipment as well.

Enhancement #2: Enhance Heat Pump Installer Network

The PAs are leading the way in decarbonizing buildings across the state by supporting the electrification of heating and hot water systems. By joining the HPIN, eligible contractors can help make these technologies more affordable and accessible to Massachusetts residents and businesses while helping reduce GHG emissions across the state. The PAs are actively recruiting oil and propane vendors, encouraging them to expand their businesses to install heat pumps and heat pump water heaters. These vendors may especially benefit from training opportunities (described below in Enhancement #4).

MassSave.com currently features a customer-facing search tool to identify HPIN participating heat pump installers serving their area. The PAs will revamp this search tool to better differentiate installers and more easily help customers locate installers in their area. The PAs will actively promote this tool to customers through statewide marketing efforts. One such improvement will be to highlight the installation and/or design capabilities of installers who have taken variable refrigerant flow manufacturer training. Currently, the tool features MWVBes (minority-owned, women-owned, and veteran-owned business enterprises) as a filter category. The PAs will continue to push for qualified MWVBes to join the program and market to customers how to locate ones serving their area for their heat pump installation needs.

Another enhancement to encourage HPIN participation of commercial installers is to feature an annual award program to showcase the most influential installers in the network. The likely award categories will be based on PA territory, total customers who received a rebate, environmental justice community customers who received a rebate, and other categories to be discussed. A potential avenue for presenting the awards is during the annual HPIN Appreciation Event.

Enhancement #3: Issue customer satisfaction surveys

To better understand customer satisfaction with the installation quality of heat pump projects, the PAs will hire a third-party vendor to complete customer satisfaction surveys for commercial heat pump projects. Data will be synthesized to identify top performing installers as well as areas where more training and/or education may be needed.

Enhancement #4: Broaden product training opportunities for existing vendors

To reach more customers to participate in the Equipment Rebates & Instant Incentives program, it is important for the PAs to ensure that HPIN contractors and other vendors that support the installation of products in this category are aware of the product offerings as well as comfortable installing them. This will be facilitated

through the continuation of a statewide contractor newsletter as well as procuring a vendor to support statewide training support services for the PAs. The vendor will be responsible for organizing training, in person or virtual, to promote the rebate programs through product training. Example training could include electrification sales tactics, heat pump product types, lighting control systems, weatherization installation best practices, energy audits, building controls, and others.

Incentive Levels

Products and incentive levels subject to change pending evaluation result changes and program need changes.

Figure 36: Equipment Rebates & Instant Incentive Levels (Downstream)

Measure	Product Type	Incentive
Downstream Rebates		
Air curtain	Air curtains	\$20/sq. ft.
Air source, Heat pump	Heat pumps	\$2,500/ton \$100/unit distributor stipend
Air source, Variable refrigerant flow		\$3,500/ton \$500/unit distributor stipend
Ground source heat pump		\$4,500/ton \$500/unit distributor stipend
Lawnmower, Retail grade	Lawn equipment	\$75/unit
Leaf blower, Retail grade		\$30/unit
String trimmer, Retail grade		\$30/unit
Chainsaw, Retail grade		\$30/unit
Lawnmower, Professional grade		\$3,500/unit
Leaf blower, Professional grade		\$100/unit
String trimmer, Professional grade		\$100/unit
Chainsaw, Professional grade		\$100/unit
Wireless-enabled thermostat	Controls	Up to \$100 each
Programmable thermostat		Up to \$25 each
Steam trap		\$50/each
After-market boiler reset control		\$225/unit
Showerhead		Up to \$20/unit
Faucet aerator		Up to \$8/unit

Measure	Product Type	Incentive
Attic insulation	Weatherization	\$0.10 per R-value added per sq. ft.
Wall insulation		\$0.16 per R-value added per sq. ft.
Basement insulation		\$0.17 per R-value added per sq. ft.
Attic air sealing		Up to \$115 per hour of air sealing work
Exterior door weatherstripping		\$11 per linear foot of door weatherstripping

Figure 37: Equipment Rebates & Instant Incentive Levels (Midstream)

Measure	Product Type	Incentive
Midstream Incentives		
Refrigerated chef base	Food service	\$500/unit \$50/unit distributor stipend
Induction cooktop - Electric resistance replacement		\$750 /unit \$25/unit distributor stipend
Commercial dishwasher		\$125 - \$2,000/unit up to \$100/unit distributor stipend
Fryer (Electric)		\$750/unit \$100/unit distributor stipend
Griddle (Electric)		\$500/unit \$25/unit distributor stipend
Hot food holding cabinet		\$600 - \$900/unit \$50/unit distributor stipend
On-demand commercial electric hand wrap machine		\$100/unit \$10/unit distributor stipend
Ice machine		\$100 - \$300/unit \$25 - \$50/unit distributor stipend
Oven (Electric)		\$400 - \$4,000/unit \$100 - \$250/unit distributor stipend
Refrigerator		\$150 - \$350/unit \$25/unit distributor stipend

Measure	Product Type	Incentive
Steamer, (Electric)		\$1,500/unit \$200/unit distributor stipend
Freezer		\$150 - \$250/unit \$25/unit distributor stipend
Electric infrared conveyor broiler		\$2,000 - \$3,000/unit \$100/unit distributor stipend
Water source, Variable refrigerant flow	HVAC	\$250/ton up to \$350/ton \$500/unit distributor stipend
Packaged terminal heat pump		\$500/unit \$50/unit distributor stipend
Air source, A/C		\$50-\$150/ton \$50-\$100/unit distributor stipend
Water source or evaporatively sourced, A/C		\$50/ton \$100/unit distributor stipend
Water source, heat pump		\$80-\$200/ton \$100/unit distributor stipend
Outside air economizer using 2 enthalpy sensors		\$250/unit \$25/unit distributor stipend
Electronically commutated motor ("ECM") circulator pump		\$100 - \$400/unit \$10 - \$40/unit distributor stipend
Constant speed PEI rated water pump		\$0.5 - \$5 (\$HP/ER) \$40/unit distributor stipend
Variable speed PEI rated water pump		\$0.2 - \$1.5 (\$HP/ER) \$40/unit distributor stipend
High efficiency condensing unit (HECU) for refrigeration		\$200 - 400/Horsepower \$50/unit distributor stipend
Laboratory grade high-performance freezer	Lab equipment	\$600 - \$1,200/unit \$50/unit distributor stipend
Ultra-low temperature freezer (-80 C)		\$2,000/unit \$50/unit distributor stipend
Lighting measure with controls	Lighting controls	Varies
Vending miser	Vending misers	\$45 - \$115/unit

Measure	Product Type	Incentive
Heat pump water heaters	Water heating	\$1,000 - \$2,200/unit \$50/unit distributor stipend

3.3.4 Small Business Turnkey Retrofit

The Small Business Turnkey Retrofit program addresses the unique needs of the smallest segment of commercial customers to reduce their energy consumption, and in turn their costs and carbon footprint. The Small Business Turnkey Retrofit program is undergoing two major shifts, which began during the 2022-2024 term and will continue this term. These shifts include a strong focus on weatherization and enhanced efforts to ensure equity. The program offers a turnkey service where a contracted vendor performs a no-cost comprehensive energy assessment, develops projects, explains costs and benefits to customers, installs the projects upon customer approval, handles all data reporting to PAs, and provides warranty service. The PAs designed the program to be easy, accessible, and equitable while streamlining administration.

Customers who wish to use their own contractors may do so through the Customer Directed Option. Under this option, the customer chooses their contractor who will scope the project. Their contractor then works with the Customer Directed Option lead vendor to calculate and submit savings analyses and incentive requests. If the project moves forward, the Customer Directed Option lead vendor handles all data administration and payment to the customer (or contractor, at the customer's request).

To generate interest from small business customers, the PAs and their contracted vendors engage in a multitude of marketing activities. This includes various digital marketing activities on many social media sites, search engines, and web browsers, as well as engaging in email campaigns to contact their customers directly. In addition to digital marketing, the PAs and their vendors mail letters and postcards to customers and attend in-person events where small business owners will be. The PAs track the effectiveness of digital marketing by recording and tracking how frequently customers view ads, how long they watch videos, and the number of clicks on the ads.

The PAs can fine-tune their messaging by seeing the effectiveness of different campaigns. The PAs and their vendors meet multiple times a month to discuss what they think is working well and what things they need to adjust. The non-digital marketing is more difficult to quantitatively track, however the PAs do qualitatively review the impacts and share those best practices with each other. One example is that the PAs found Main Streets events were more successful when they mailed a postcard a few weeks ahead of the event. As a result,

all PAs are now sending postcards prior to Main Street events. The PAs will continue to track marketing results, share best practices, and iterate to maximize the impact of their marketing throughout the 2025-2027 term.

The PAs recognize that not all small businesses have the same needs or respond to the same messaging. Therefore, they target specific small business market segments and deliver messaging specific to those groups. They do this by attending industry specific trade shows, advertising in industry organization newsletters and websites, and presenting webinars to industry groups on the benefits of the Mass Save programs. The PAs have found this to be an effective marketing strategy and will continue to do this in the 2025-2027 term.

Program Design

There are two major subcomponents of the Small Business Turnkey Retrofit program—(1) Small Business Services and (2) the Customer Directed Option.

Small Business Services – Component of the Small Business Turnkey Retrofit Program

In the Small Business Services pathway, the PAs directly contract with vendors to perform comprehensive energy assessments at small businesses and either do the installation of identified energy-saving measures or act as a general contractor and subcontract the installation work out. These vendors also act as account managers to small business customers in their journey to increase their energy efficiency and reduce GHG emissions. The vendors work with the customer to implement recommended work, which sometimes needs to occur over time due to economics for the customer. They use customer relationship management systems to keep track of completed work and marketing and outreach efforts to small businesses in their territories.

Vendors typically use their own systems to schedule assessments, document results of assessments, proposal information, installation information, and invoicing. Vendors will also use their systems to reach out to customers if new offerings are available that may be applicable to the customer's situation or reengage a customer when economic situations, like energy costs, change. For most of its existence, the Small Business Services pathway has focused on lighting; however, in the 2022-2024 term this offering has seen a major shift toward comprehensively serving all energy end uses in small businesses. Building on the work of the 2022-2024 term, the PAs will continue to ramp up production of non-lighting measures in the upcoming term. The PAs are equipping turnkey vendors with the tools needed to quickly assess and quantify energy savings from a variety of measures.

The PAs will continue to create and expand custom express tools and training available for their vendors, as they have done with weatherization in the current term. The custom express tools allow vendors to quickly

develop an estimation of savings, which reduces the time required to scope a project and gives customers information needed to make a timely decision. Adding new tools, the PAs will help drive more comprehensive projects for small business customers. Additionally, the PAs will promote heat pumps through the Small Business Services pathway in the upcoming term.

In the 2025-2027 term, the PAs will add two new components to the Small Business Services pathway—(1) an increased offer for charitable nonprofit organizations and (2) a new delivery approach and enhanced offer for renters and landlords. For select tax-exempt entities including but not limited to charitable nonprofit organizations, religious organizations, and veterans' organizations, the PAs will offer up to 100 percent of the project cost for energy efficiency projects, an increase from the standard up to 70 percent offer. The PAs also plan to have the nonprofits supported by the program share their experience with their organization's members to help drive more participation in the Mass Save programs.

In the past, small businesses that rented their buildings have participated similarly to businesses that own their facilities as lighting offered a short payback. However, as lighting opportunities decline, and the PAs focus on more complex energy efficiency measures like weatherization and HVAC, which have longer paybacks and often require building owner approval, the PAs recognize the need to develop a new approach to serving this customer segment. Therefore, the Massachusetts PAs are launching a new offer with higher incentives to help renters and landlords understand the benefits of energy efficiency in their buildings.

Customer Directed Option – Component of the Small Business Turnkey Retrofit Program

The second major subcomponent of the Small Business Turnkey Retrofit program is the Customer Directed Option. The PAs developed this pathway to encourage participation for customers who have their own vendor or contractor that they prefer to work with. The Customer Directed Option has traditionally contributed a small portion of the savings from the Small Business Turnkey Retrofit offer and customers have traditionally used this offer for lighting. The PAs contract with a vendor to manage the Customer Directed Option. This vendor is responsible for conducting inspections to ensure the customer-selected vendors have performed their work with the program and that they have captured all necessary data. In the 2025-2027 term, the Customer Directed Option vendors will conduct a comprehensive energy assessment when they complete the inspections. This will drive more comprehensive projects and help to better serve small businesses' energy efficiency needs. Additionally, the PAs will shift toward an outbound marketing approach to actively engage more vendors to participate in the Customer Directed Option.

Program Implementation

The PAs offer both the Small Business Services and Customer Directed Option pathways. Throughout the 2025-2027 term, the PAs will implement enhancements to these offerings. The PAs plan to launch increased incentive support for charitable nonprofit organizations and renters in Q1 2025. In association with the launch of these enhancements, the PAs will launch awareness campaigns to build up support throughout the first year of the 2025-2027 term.

The joint PA delivery enhancement has multiple components, which the Program Administrators can implement in phases quickly. The ultimate goal of the PAs is for the joint procurement and management of Small Business Services vendors in dual PA territories to go into effect in 2027 as existing contracts extend through 2026. However, starting in Q1 of 2025, the PAs will set up processes for easier vendor participation in joint territories. The PAs will need to align documentation, have a consistent comprehensive assessment format, use the same calculators for custom projects, and piggy-back contracts where applicable. The PAs will implement Customer Directed Option enhancements in Q1 2025 and will fully implement them by Q1 2027, as existing contracts expire at the end of 2026. Starting in 2025, the PAs will align on the Customer Directed Option structure so vendors can work across territories in a seamless fashion. Additionally, Customer Directed Option lead vendors will work to recruit new contractors to the programs.

Program Eligibility

The Small Business Turnkey Retrofit program is open to PA customers using less than 1.5 million kWh in annual electric usage or less than 40,000 therms annually on natural gas bills; however, exclusions do apply.¹⁴⁰ Customers that are part of a parent account, national account, or government account are not eligible for this initiative. Buildings eligible for the Renter and Landlord offering are commercial buildings in which the tenants meet the program criteria, the building owner occupies less than 50 percent of the occupied space, and tenants are responsible for paying their energy costs.

The eligibility requirements for the enhanced incentive offer for charitable nonprofits are:

¹⁴⁰ Unitil allows customers using up to 1.0 million kWh per year of electricity to participate in the Small Business Turnkey Retrofit program.

- Select tax-exempt entities, including charitable organizations, religious organizations, and veterans' organizations (to be determined 501 criteria).
- Have operated in Massachusetts for at least five years.
- Own, or have a long-term lease in, the building in which it operates.
- Have an active electric or gas account in its name in a PA's territory.
- Meet small business usage thresholds.

Description of Measures

The PAs will support all cost-effective energy efficiency and electrification measures through the Small Business Turnkey Retrofit program. These measures include, but are not limited, to the following end uses:

- Compressed air systems
- Hot water systems
- HVAC systems and controls
- Lighting and lighting controls
- Motors and drives
- Pipe insulation
- Process
- Refrigeration
- Weatherization

Program Barriers

There are numerous barriers to serving small business customers in Massachusetts. There are several hundred thousand C&I customers eligible for the Small Business Turnkey Retrofit offerings. Reaching all customers with relevant messaging is a challenge. Marketing and customer outreach are essential to reaching these customers. The PAs perform extensive marketing across the state and have numerous strategic engagements with community partners to reach these small businesses. Furthermore, several program enhancements outlined below focus on customer engagement.

Additionally, customers in this segment are more price sensitive than larger customers, making it more difficult for these customers to implement efficiency projects. As a result, these customers receive higher incentive rates than other C&I customers. For the 2025-2027 term, the PAs propose enhancements including further increased incentives for specific customer categories like nonprofits and renters. Another challenge is that small business owners typically have many responsibilities, leaving them little time or attention to dedicate to facility or energy management. Therefore, the PAs offer comprehensive energy efficiency assessments to address all customers' needs in a single engagement.

Approximately two-thirds of small businesses lease their space and are not able to implement recommended deeper measures (like weatherization or HVAC) as it would be the decision of the landlord to provide approval to move forward with recommendations. In the 2022-2024 term, the PAs began to address this split incentive issue by offering enhanced renter incentives for weatherization. Split incentives are when a landlord makes capital improvements that result in energy savings for tenants and one party pays for the improvements while the other party receives the benefits of reduced energy costs. The Renters and Landlords initiative detailed below builds on this experience to drive adoption in leased spaces. Lastly, businesses may not consider implementing energy efficiency measures that disrupt their business operations (like weatherization) as they feel they cannot close their business to implement the work. To address this barrier, the PAs and their vendors make efforts to accommodate the customers' schedules whenever possible.

How the Program Impacts Plan Priorities

Improving service to small and microbusinesses addresses each of the Plan priorities of equity, decarbonization, and improving the customer experience. The PAs will also ensure that vendors provide energy assessments in the customer's native language through phone or in-person translation services (if an energy specialist does not speak that native language) and will have materials available in their native language to the extent possible. Adequately providing energy efficiency and electrification opportunities for small and microbusinesses is a key element of equity in the C&I sector. Additionally, because small businesses represent the largest category of C&I customers and often occupy older building stock, there is substantial opportunity for electrification and weatherization. As discussed above, small business owners often lack the time and resources to pursue energy efficiency opportunities, so seamless access to the PAs' programs is essential.

Small Business Weatherization

Weatherization is an incredibly important measure in the program and the PAs view it as a major growth opportunity. However, weatherization is not a strategic enhancement in and of itself, because the PAs have

woven into all four of the strategic enhancements below. For part of the first strategic enhancement, the Program Administrators will require Small Business Services lead vendors to look for weatherization opportunities at every assessment they complete. Furthermore, since weatherization can deliver both electric and gas savings, having a joint PA delivery with a single vendor by territory means the customers will have a seamless experience. The second strategic enhancement will drive more weatherization projects by having the Customer Directed Option lead vendor looking for weatherization opportunities when customers are implementing other energy efficiency projects.

Additionally, the Customer Directed Option lead vendor will engage weatherization contractors to get them to participate in the program offering. For the third and fourth strategic enhancements, the PAs designed them to help small business customers with needs that make long payback measures like weatherization more challenging. By increasing incentives for renters and charitable nonprofits, when combined with the first two strategic enhancements, the PAs expect to increase the number of weatherization projects completed by these segments of small business customers. Scaling up the weatherization offers and building on the foundations laid during the previous term will be an incredibly key component of decarbonizing the C&I sector for the 2025-2027 term.

The PAs are committed to ensuring that high-quality weatherization installations occur. The PAs contract with a third-party QA/QC Vendor who inspects 10-15 percent of weatherization projects. All inspectors must have a BPI certification, participate in mandatory training held by the PAs, participate in trainings held by the QA/QC Vendor or through a third-party, to provide quality inspections. The inspectors perform visual inspections of the installation and will use infrared scanning when able to confirm the installation. The PAs review reports from the QA/QC Vendor on a regular basis. If a project has failed inspection or needs follow-up, the PA will work with the vendor or contractor who installed the measure to ensure that they rectify it as soon as possible for the customer. If the PAs find that a vendor or contractor has continued issues with their projects, there is an escalation ladder in place to issue warnings, suspension, or expulsion from the program.

Strategic Enhancements

Enhancement #1: Joint PA program delivery

In the prior three-year plans, customers have noted some differences in experiences between the PAs; therefore, the PAs seek to improve customer experiences in the 2025-2027 term. Specifically, in the short term, the PAs will coordinate toward assigning program vendors collaboratively. This practice has already begun with Main Streets vendor assignments and will continue with individual customer projects. This practice

will ensure that a single vendor serves a customer, and the PAs expect the vendor to provide thorough, comprehensive energy efficiency services.

By aligning vendors in overlapping territories, the PAs will streamline the entire process for both vendors and customers by freeing up bandwidth for vendors to do more comprehensive energy assessments and installations. This new approach means there will no longer be multiple vendors serving the same customer. This allows vendors to pursue other projects and ensures a single vendor serves a customer and they will review all fuel type measures. Another benefit of aligning vendors in territories is that this will allow the PAs to better track (to the extent possible) the impact of digital marketing from first contact through project completion, as there is one vendor involved with a customer now versus multiple. The longer-term plan (2027) is to solidify this practice by coordinating on a statewide RFP to hire a lead vendor to administer statewide Customer Directed Option activities, and a group of lead vendors to deliver Small Business Services.

To further streamline the customer experience, the PAs will standardize several elements of the assessment and proposal process. This includes ensuring that all assessment reports include a summary of findings written for a non-technical audience, project metrics (including costs, incentives, savings, and simple payback periods), descriptions of each opportunity found, next steps for the customer, and when appropriate, connections to other initiative offers, such as midstream, available to customers. Additionally, the PAs will implement an updated standard checklist to ensure comprehensiveness in assessments and implement a statewide phone number that will direct customers to appropriate PA staff. Through this process, the PAs will ensure vendors create proposals that are high quality, easy to understand, focused on educating the customer and leading them toward comprehensive energy efficiency improvements.

Enhancement #2: Expand the Customer Directed Option

To better achieve program goals and bolster equity efforts, the PAs plan to dramatically expand the Customer Directed Option offer. This will include actively recruiting independent contractors who may not have felt they were ready to compete in an RFP for lead Small Business Services vendors. The PAs will also require Customer Directed Option lead vendors to attempt to develop comprehensive (multi-measure) projects from any single-measure project they submit, either through an inquiry to the submitting contractor or through a comprehensive small business services assessment.

The PAs anticipate that expanded Customer Directed Option efforts will be a vehicle to diversify the mix of contractors and measures in the Small Business Turnkey Retrofit program, and to prepare a wider cohort of contractors to fill lead vendor roles. In the spirit of increasing consistency and improving customer experience,

the PAs intend to move selection of the Customer Directed Option lead vendor to a statewide RFP process rather than individual RFPs issued by PAs.

Enhancement #3: Introduce a renters and landlords offer

The shift away from lighting and toward longer-payback measures, such as heat pumps and weatherization, has exacerbated the “split-incentive” problem often seen between landlords and renters. Incentives applied to short-payback projects are often enough to overcome this dynamic, but electrification and weatherization projects tend to have longer payback periods and are therefore more difficult for either the renter or landlord to accept. From a landlord’s perspective, coordinating with multiple renters and multiple PAs can discourage participation.

The PAs designed this initiative to address leased commercial space from two fronts: the renter and the landlord. In addition to increased incentives and enhanced outreach and marketing efforts, it includes specific approaches for each group. For landlords, the PAs will develop a consistent set of measures and incentives on a statewide level, simplifying participation across territories. The PAs will also establish a process for incentivizing projects that benefit multiple accounts at a single facility, streamline the process for renters to assign the incentive checks to the landlords, and provide landlords with marketing and information packets on energy efficiency offers available to renters.

The PAs will develop a Renters webpage on MassSave.com to serve as a collection of resources for renters, including resources on approaching landlords to discuss capital intensive energy efficiency measures, resources on short payback measures, and information on energy aligned leases that landlords can add to commercial leases to help with the split incentive barrier. The PAs will include this information on the new Renters webpage, provided to the contracted Small Business Services vendors to help educate customers to have the conversation with their landlords and educate landlords to the extent possible.

Enhancement #4: Prioritize support for community-based organizations

In the 2025-2027 term, the PAs are prioritizing support for community-based organizations, by increasing outreach and equity to more members of the community. The PAs intend to offer enhanced incentives to eligible charitable nonprofit organizations, including but not limited to 501(c)3, veterans' organizations, and houses of worship. The PAs expect to offer incentives of up to 100 percent to qualified nonprofits, depending on the achievable savings. The program will measure success through increased participation and quantifiable growth of the targeted audience. Comprehensiveness is at the forefront of this offer and the PAs will require vendors to look for multiple measures at each facility, to ensure participants can get up to 100 percent of the

costs covered. This offering aims to overcome limitations faced by charitable nonprofits in accessing financial support to reduce their energy usage, helping them stabilize their finances and serve more community members, thereby extending benefits beyond the facilities where improvements occur.

A key element in implementing this offer will be to continue the successful Main Streets approach and Community First Partnership. Building on those successes in the 2025-2027 term, the PAs will include specific focus on enhancing outreaching strategies in the community. Some examples of organizations the PAs will target include houses of worship, chambers of commerce, and industry associations. The PAs have centered this strategic enhancement around fostering community engagement and equitable growth. This focus will foster stronger relationships and brand trust within the communities and increase participation rates. In addition, with the additional funding proposed for CFPs, the PAs plan to provide more support and training to the CFP vendor and energy advocates on the incentives and offers available to small business customers. This will help give CFPs the tools to be able to have conversations with small businesses and drive more small business assessments and participation.

Incentive Levels

The PAs offer a variety of incentive levels through the Small Business Turnkey Retrofit program. Businesses that rent their space and are responsible for their energy costs and eligible charitable nonprofit organizations will receive enhanced incentives up to 100 percent of the project cost. Businesses who participate in a Main Street effort will receive incentives up to 90 percent of the project cost. These enhanced incentives are above the standard incentive offering of up to 70 percent for small businesses. Additionally, PAs occasionally offer time-bound promotions throughout the term with special offers for certain measures or sectors when they see an opportunity to drive increased savings. Lastly, as the lighting market continues to evolve, the PAs are changing their approach to supporting lighting in the Small Business Turnkey Retrofit program. Starting in 2025, the PAs will be offering tiered support for lighting, with lighting projects without controls receiving a reduced amount of incentive support, as the PAs aim to encourage greater adoption of lighting controls.

Figure 38: Small Business Turnkey Retrofit Program Incentive Levels

Measure	Measure Criteria	Incentive
Standard energy efficiency (“EE”) offer	Any and all cost-effective energy efficiency measures allowed by the PAs’ enabling authority. These include but are not limited to weatherization, HVAC,	Up to 70% of the total measure cost
Standard EE Main Streets offer		Up to 90% of the total measure cost

Measure	Measure Criteria	Incentive
Standard EE Renter offer	refrigeration, motors and drives, compressed air systems, building controls, pipe insulation, process equipment, water heating equipment, and lighting	Up to 100% of the total measure cost
Standard EE Nonprofit offer		Up to 100% of the total measure cost
Heat Pump offer	Equipment must be on the qualified product list and be used for heating, and either partially or fully displacing an existing electric resistance, oil, propane, or natural gas system	• \$2,500/ton for air source heat pumps • \$3,500/ton for variable refrigerant flow • \$4,500/ton for ground source heat pumps
Instant saving measures	• Water-saving measures • Programmable thermostats • Smart power strips	100% of the total measure cost

*The Small Business Turnkey Retrofit program pays up to a certain percentage of the measure cost assuming the cost of savings does not exceed the budgeted \$/net lifetime savings value for the initiative. Those values vary by year and PA, depending on the mix of measures budgeted.

3.3.5 C&I ConnectedSolutions

ConnectedSolutions is the name of the PAs' suite of ADR offerings in both the C&I and Residential sectors. The program aims to reduce system peak load by leveraging behind-the-meter technologies owned and controlled by both residential and commercial customers in response to event signals from the PAs, thus reducing grid load during peak periods. The PAs reach C&I customers through Targeted Dispatch and Daily Dispatch offerings intended to incentivize customers to reduce demand during periods of peak system demand. The program provides system benefits by actively reducing the installed capacity requirement (calculated through regression by ISO-NE) and reducing transmission and distribution costs that are borne by all customers.

Program offerings are outcome based and technology neutral; typically, they do not limit how or what technology customers could use when responding to event calls.¹⁴¹ Customers can participate in ConnectedSolutions with a wide range of technologies and strategies. While not exhaustive, the PAs expect

¹⁴¹ The 2022-2024 Plan phased out incentives for fossil fuel generators participating in the C&I ConnectedSolutions program. Starting in 2023, fossil fuel generators are no longer eligible to participate in ADR offerings, including Daily Dispatch or Targeted Dispatch.

customers to respond with changes to HVAC and chiller system sequences and controls, production and shift scheduling, lighting switching and dimming, refrigeration and process equipment scheduling, and energy storage. Some customers prefer to develop automated response sequences, while others prefer to engage with manual adjustments to facility systems on equipment during events, and the PAs performance-based approach in both the Targeted and Daily Dispatch offerings flexibly allow for the customer preference.

Program Design

The program's Targeted Dispatch offer pays C&I customers with interval metering capability for actual, measured curtailment of load during events called during periods of ISO-NE system peaks. The PAs, customer facility staff, and Curtailment Service Providers ("CSPs") work together to identify peak load curtailment opportunities during the summer season (June 1 through September 30) that can be used during up to eight targeted events lasting three hours each. Customers can participate in the Targeted Dispatch offering a wide range of technologies and strategies including battery energy storage.

The PAs assess customer performance during each event using a site-specific baseline (with the exception of battery storage), and at the end of the season, pay incentives on a per-kW basis based on average overall performance across all events. During the 2025-2027 term, the PAs will provide ADR offerings for the summer performance seasons, corresponding to peak system loads. Additionally, large C&I customers who have chosen third-party supply rates are subject to installed capacity ("ICAP") fees and can potentially reduce those fees by participating in ConnectedSolutions and by working with their CSP. ISO-NE determines the annual ICAP hour—the highest demand (MW) hour in a given ISO-NE Capacity year. Since program events target peak demand days on the ISO-NE grid, customers aim to reduce energy during the ICAP hour. ISO-NE uses a customer's actual demand during the ICAP hour to determine capacity needs for the upcoming year and assess charges accordingly. Some C&I customers also choose to participate through their CSP in the ISO-NE market, thereby further increasing the revenue customers can earn from being able to reduce load when called upon.

The C&I ConnectedSolutions Daily Dispatch offers pay customers an incentive for responding to an increased number of events (up to 60 events per summer). This offering gives customers the flexibility to curtail or discharge electricity in a way that works best for the customer. Customers can participate in ConnectedSolutions Daily Dispatch offering using a wide range of technologies and strategies. While not exhaustive, the PAs expect customers to respond with thermal storage from large refrigeration systems,

energy storage, and in some cases—HVAC controls.¹⁴² As with the Targeted Dispatch offering, the PAs pay Daily Dispatch incentives based on average performance at the end of the summer season relative to their baseline (except for battery storage).

Participation in the Daily Dispatch offering is open to any customer who can achieve a reduction in loads on the grid for up to 60 two-or-three-hour events per summer. To be eligible for this offering, a customer must shed load at their facility and/or allow the PAs to discharge the customer's battery energy storage system ("BESS"). A BESS must be a behind-the-meter asset. "Behind the meter" means a facility that serves an onsite load other than parasitic load or station load used to operate the BESS. The Department has made the following ruling: "The Department emphasizes the importance of designing energy efficiency measures that aim to primarily decrease onsite load rather than increasing export to the grid."¹⁴³ Because of this ruling, the PAs clarified during the 2022-2024 term that they would cap Daily Dispatch performance incentives for customer-utilizing BESS at 150 percent of site load, absent any charging of the BESS. The PAs will revisit each customer's cap every year and adjust to reflect any significant load growth or contraction. The PAs, in consultation with DOER, the AGO, and the EEAC consultants, settled on 150 percent of site load to allow customers some flexibility in battery sizing.

As part of the Department's approval of the ConnectedSolutions program in July 2020, the PAs can offer a five-year incentive lock for participants intending to install battery storage. The purpose of the incentive lock was to provide prospective developers and customers interested in investing in a battery with a degree of certainty with respect to the incentive rate that they could expect to receive by performing in response to Daily Dispatch events. In response to stakeholder feedback requesting additional details on how the lock will be applied and administered, the PAs have made the following clarifications:

- The "five-year lock" represents a lock on the incentive rate at which the PAs will compensate participants for performance in the Daily Dispatch offering. This lock does not mean the PAs intend to offer a revenue guarantee that a customer who enrolls will receive in any given year or over the duration of their participation.

¹⁴² In some cases, a PA's DERMS providers can send dispatch signals directly to the customers' CSP, who then sends dispatch signals directly to customer-owned devices, such as batteries and other participating equipment. This machine-to-machine communication makes it easier for customers to participate.

¹⁴³ See D.P.U. 22-137 Ruling re: [Petition of the Cape Light Compact JPE for Approval of a Strategic Electrification and Energy Optimization Demonstration Project Pursuant to St. 2022, c. 179, § 87A.](#), issued Jan. 11, 2023.

- To the extent the definition of “performance” may change in response to both changing market conditions and other incentive programs, the PAs need to maintain the ability to modify their programs. This ability to make modifications ensures that the PAs use customer funds to maximize additional or incremental reductions in capacity, beyond what would have occurred in the absence.
- The PAs recognize that there may be other sources of value available to owners and operators of BESS assets including SMART adders, Clean Peak Energy Certificate generation, demand charge management, reliability concerns, and that may influence how they choose to charge and discharge their batteries.

While the PAs have identified the five-year lock as a key component to provide developers with revenue certainty to secure project financing, the Program Administrators have not observed that it drives a significant number of customer’s BESS installations, though other factors may be at play (most notably BESS development costs). In 2024, the PAs completed an EM&V study of the ConnectedSolutions offering. The study concluded that the impact of the five-year lock has been successful in securing the implementation of some BESS projects, and the study recommended that the PAs continue to offer the five-year lock.¹⁴⁴

In response to developer feedback leading up to the 2022-2024 term, the PAs began offering a two-year construction lock regarding the time required to propose, finance, construct, and interconnect a commercial BESS, which can take multiple years. This process can cut into the five years of performance-based incentive rate lock from initial enrollment at a known fixed rate for eligible commercial BESS (behind-the-meter assets greater than 50 kW). The customer or developer can, upon submission of a completed application for interconnection from their electric distribution company, request a commitment letter from their PA that grants the customer or developer two years from the date of issue to enroll in the ConnectedSolutions Daily Dispatch offer for a further five years of participation in Daily Dispatch at the incentive rate in effect at the time the offer letter was issued. The PAs will count any time in excess of two years until the customer enrolls as part of the five years of participation. The PAs seek to balance future risk of recovering customer funds for program costs many years into the future, with a desire from developers to have increased certainty in their project proposals.

¹⁴⁴ DNV. ["MA23DR01-E-C&I / CT2214 – Cross-State C&I Active Demand Reduction Initiative Summer 2023 Evaluation Report."](#) Jun. 2024, p. 55.

The PAs' delivery of the C&I ConnectedSolutions program relies heavily on existing energy efficiency sales teams who regularly conduct outreach to customers to develop efficiency projects. While customers can participate directly, experience to date suggests that most customers prefer to work with a CSP to assess their curtailment potential, advise them on control strategies, and help them implement potential upgrades or equipment that may facilitate greater performance during events, as well as provide additional value to their customers. The program does offer incentives for qualified equipment installed to facilitate load reduction during peak events through "traditional" equipment-based pathways including HVAC controls, lighting controls, and process controls. Similarly, the PAs' staff can work with customers and installation contractors to leverage efficiency projects for additional value through the ADR offerings where appropriate. Energy efficiency and ADR efforts offer two distinct incentives for differing but complementary purposes.

For smaller commercial customers, they may have HVAC systems controlled by the same communicating thermostats most commonly found in residences; however, these customers may not have interval meters that can measure demand reductions. To the extent that these customers have connected air conditioning loads, the PAs will target them through the same marketing efforts that the device manufacturers apply to residential customers. As with residential customers, the PAs will work to increase the number of communicating thermostats installed in commercial buildings with compatible systems and to encourage enrollment.

Program Barriers

The program has experienced continued growth since its launch in 2019, although growth has slowed in recent years. Since they established the program, the PAs have endeavored to improve the customer experience and better integrate it with other efficiency and decarbonization offerings. ADR programs have limitations and barriers to ubiquitous customer eligibility and participation. Some include:

- The PAs' current go-to-market strategy may be missing a swath of customers whose demand is too small to develop detailed demand reduction strategies while their demand is too large for them to be motivated to participate in thermostat-driven offerings.¹⁴⁵

¹⁴⁵ For smaller customers with utility interval meters, yet too small for significant curtailment, Eversource and Unitil are allowing those sites to enroll without having the CSP interval data streamed from the site to lower the cost to enroll. Eversource and Unitil will use their own interval meter data for settlement of those customers post season. National Grid allows all customers to participate without having CSP interval data streamed from the site.

- Behind-the-meter BESS equipment costs have declined in recent years; however, soft costs such as permitting, and interconnection have increased. For most installations, these soft costs now make up the majority of the cost of a BESS project. This skews the economics to favor larger BESS installations because the soft costs remain unchanged for smaller commercial-scale battery systems and large-scale battery storage systems, while the revenue and savings a BESS system can generate scale with system size. Except for larger customers, the Daily Dispatch incentives these larger BESS systems can earn are limited by the 150 percent cap. It may take time for equipment and soft costs to decline enough for smaller BESS systems, which can be supported by the site load of smaller C&I customers, to become economical.
- A current lack of automated curtailment programed into a customer's BMS. While automated curtailment actions make it easier for sites to perform in the program, BMS control changes can be complex and costly and may discourage customers from enrolling. The PAs are coordinating with other C&I offerings for BMS upgrades to incentivize pre-programming of ADR sequences when systems are upgraded.
- The incentive gained from participating in ConnectedSolutions may not be enticing enough to warrant adjustments to the customer's general operations.

How the Program Impacts Plan Priorities

The C&I ConnectedSolutions program impacts equity, decarbonization, and improved customer experience. First, by lowering the ISO-NE system peak, overall costs are reduced for all electric customers and provide direct incentive benefits to both large and small C&I customers who are participating in the program. In addition, less-efficient and carbon-emitting power plants are deployed when the ISO-NE peak occurs, thus peak reduction helps to reduce carbon emissions from the electric system. As climate change becomes more of a top-of-mind concern for customers, bringing them into programs that help reduce emissions (not to mention costs) provides them with a positive customer experience and a clear measure they can point to when discussing their environmental, social, and governance initiatives. Lastly, the program is one of the few incentive streams available to customers to earn a return on investment for using some capabilities of behind-the-meter battery storage, making substantial customer investment more economically attractive, in addition to any reliability benefits provided by storage systems.

Strategic Enhancements

Enhancement #1: Enrollment growth and availability for more customers

The PAs are planning for and targeting continued ADR growth in customers participating and demand reduced. As mentioned above the cross promotion across many of the C&I programs increases the opportunities for enrollment of new customers and the continued emphasis on heat pump promotion means there will be more controllable equipment coincident with the current system peak periods for the PAs to recruit.

Enhancement #2: Better integrate C&I ConnectedSolutions program with other C&I programs

The PAs will incentivize preprogrammed demand reduction control sequences through other C&I programs. Enhanced incentives to automate demand response sequences using an “easy button” will ready these customers to participate in ADR programs and improve their performance during events. An “easy button” will make it easier for existing customers to participate consistently and help recruit customers when the building management system is already being modified for upgrades, retro-commissioned, or first constructed.

There are three parts to the plan to integrate ADR and energy efficiency projects:

1. **For BMS upgrades and RCx (retro-commissioning) projects** that apply for incentives, when BMS vendors are actively programming a customer’s building management system, the strategy is to get them interested in ADR, bring in a CSP, and give them a bonus to the energy efficiency program so a BMS curtailment plan can be established and programmed while the system is being upgraded. This will lower cost and complexity for customers and get them ready to enroll in the ADR program.

Enrollments and performance have declined in Targeted Dispatch in recent years. This may be partially due to the lower clearing prices of ISO-NE’s FCM. Most C&I customers who participate in ConnectedSolutions also participate in the wholesale markets through their CSP to stack benefits. As the benefits customers can receive from ISO-NE have decreased, so have customers participating in ConnectedSolutions. To partially account for this, some PAs may offer a larger incentive for Targeted Dispatch during the 2025-2027 term.

2. **For new construction projects**, the PAs are working to include a review by the design team during the design development phase so demand reduction sequences of operations can be written into the specifications to new construction sites are ready to enroll in the program when complete. This will also allow customers to actively manage their own demand to lower their costs.

3. **Continued exploration of cost-effective strategies** for gas and winter electric demand reduction and effective use of future AMI capabilities.

Enhancement #3: Higher annual incentive for small and medium-sized business customers

Small and medium-sized businesses often cannot curtail enough load to pay for the metering costs needed to participate in Targeted Dispatch or Daily Dispatch. Also, the detailed and customized services CSPs offer are hard to justify for smaller customers. Small and medium-sized business customers can participate in ADR events through a supported Wi-Fi thermostat, just like residential customers. However, the incentive rate of \$50 enrollment and \$20 per year does not adequately compensate small and medium-sized business customers for their larger curtailment. Some or all of the PAs may offer small and medium-sized business customers a higher thermostat-based demand response incentive.

ISO-NE and the electric distribution companies' long-term forecasts indicate that the system will transition from a summer peaking system to a winter peaking system, within the next 10 years. The gas system is also winter peaking. The PAs will continue to work with the EEAC and ISO-NE and to monitor the Electric Sector Modernization Plan and D.P.U. 20-80 plan developments to identify cost-effective strategies for statewide offerings for gas¹⁴⁶ and winter electric¹⁴⁷ demand reduction. The large electric distribution companies both have wide-scale AMI deployment planned, with much of the work slated for completion by the end of the 2025-2027 term. The PAs anticipate future AMI capability will allow ConnectedSolutions to offer different program designs to incent customers to reduce demand during system peak times; however, the exact capability and the precise numbers of customers with AMI capability is not yet known.

During the 2025-2027 term, the PAs may have the capability to run technology-neutral, performance-based ADR offerings for small and medium-sized businesses, instead of the current measure-specific approach. If any novel program offerings or designs are identified, the PAs will plan to implement a demonstration following

¹⁴⁶ Eversource, as part of the EGMA settlement, is currently running gas demand response demonstrations for both the Residential and C&I sectors. Eversource is sharing learnings and findings with the PAs as these demonstrations are ongoing.

¹⁴⁷ During the 2019-2021 term, the PAs offered a winter electric ADR offering while awaiting a cost-effectiveness determination. The offering was limited to C&I customers and ultimately recruited approximately 50MW of customer demand reductions, of which roughly 15MW was comprised of diesel generators. The offering was ultimately not cost-effective and ceased. The PAs have revisited the benefit-cost calculation using updated AESC values and found no material changes in the cost-effectiveness of a winter ADR approach at this time.

the current Department guidance on demonstrations as detailed in section 7: Research, Development, and Demonstration.

Incentive Levels

Figure 39: C&I ConnectedSolutions Incentive Program Incentive Levels

Measure	Criteria	Incentive Amount
Targeted dispatch	Measured performance	\$45 / kW
Daily dispatch	Measured performance	\$200 / kW
Small and medium-sized businesses on a G-2 rate	Flat incentive	\$200 per thermostat per year and \$50 per thermostat per enrollment

3.4 Hard-to-Measure Initiatives

The PAs classify some of their undertakings as “Hard-to-Measure.” This set of work describes activities that contribute to or facilitate the PAs’ achievement of their goals, but do not, by themselves, directly produce savings. Each sector has Hard-to-Measure Initiatives which are listed below.

Statewide Marketing – All Sectors

The budget in the Statewide Marketing Hard-to-Measure Initiative is used to support general statewide marketing efforts and the statewide brand, Mass Save. Program marketing is included in each of the program’s budgets. See section 6: Marketing for more information.

Statewide Data – Residential, Low-Income, and C&I

The budget in this category is used to support database and data review and sharing efforts, including costs associated with vendors developing and improving Mass Save Data, the PAs’ statewide energy efficiency database, as well as the PAs customer profile dashboard managed by the PAs Statewide data management vendor. Statewide database efforts will affect all sectors, with funds budgeted for each sector. Please refer to section 5: Statewide Data and Data Transparency for more information on the PAs’ data and reporting efforts.

DOER Assessment – Residential, Low-Income, and C&I

The DOER Assessment represents an annual budget for DOER that is assessed. Please refer to section 9.1: DOER Assessment for more information.

Evaluation & Market Research – Residential, Low-Income, and C&I

This budget category includes costs associated with the EM&V budget, potential studies, the AESC Study, the eTRM, related labor costs, and other evaluation and market research costs. This research provides value across programs, and costs will be allocated to one or more sectors as appropriate for each activity. Please see section 4: Evaluation, Measurement, and Verification for more information.

Outside Consultants – Residential, Low-Income, and C&I

The EEAC Consultants' budget is managed by DOER and used to support the retention of expert consultants by the EEAC and reasonable administrative costs, in accordance with G.L. c. 25, § 22(c). The EEAC must annually submit to the Department a proposed budget for the "retention of expert consultants and reasonable administrative costs. The AGO Consultant is retained by the AGO, and "reasonable and proper expenses" as defined in G.L. c. 12, § 11E(b). Please see section 9.2: Council Consultants for more information.

RD&D and Demonstrations – Residential and C&I

In their continued efforts to explore new technologies, measures, and solutions available for customers, the PAs set forth this budget to pursue research and development for new technologies, measures, and solutions that may or may not immediately lead to savings. This allows the PAs to be proactive and leaders in innovation. Costs associated with research and development into areas of interest are charged to this category. The PAs will seek to identify demonstration project (meeting the definition and intent of the Department's Energy Efficiency Guidelines) candidates during the Plan's development or propose them within a Plan term through a mid-term modification.

Sponsorships & Subscriptions – Residential, Low-Income, and C&I

Sponsorships and subscriptions support the energy efficiency market, encourage workforce education, attract skilled employees to Massachusetts, and promote innovation in both service delivery and the development and testing of energy-efficient technologies. In accordance with the Department's Order regarding the 2019-2021 Plan and general accepted practice, each sponsorship and subscription expense must be reasonable, prudently incurred, and provide a direct benefit to Massachusetts customers. For additional information, please see Appendix J: Sponsorships & Subscriptions Policy.

Workforce Development, Massachusetts Clean Energy Center – Residential, Low-Income, and C&I

The PAs work with the MassCEC to coordinate clean energy equity workforce development programs offered by the center using the \$24 million in ratepayer funding provided annually to MassCEC through the Mass Save programs. G.L. c. 25 § 19(d); G. L. c. 23J, § 13(c). This \$24 million in annual funding represents a doubling of the current budget for MassCEC’s essential and innovative workforce development efforts.

As required by law, these MassCEC-led programs are designed to support participation and employment of MWBEs, residents of low-income and environmental justice communities, federal and state tribes, fossil fuel workers, and other underrepresented businesses or communities in the energy efficiency and clean heating and cooling industries. G. L. c. 23J, § 13(a). These efforts are fundamental to meeting the Commonwealth’s energy efficiency and electrification needs and supporting a just clean energy transition, and the PAs are grateful for the leadership, expertise, and support of MassCEC in driving these efforts.

Given the importance of this effort to the success of the programs, the PAs and MassCEC are implementing several changes to their collaborative approach for the 2025-2027 term. First, the PAs and MassCEC will meet regularly to discuss specific equity workforce needs of the Mass Save programs, strategies for meeting these needs, and promote specific employment and business opportunities following the training.

Areas of focus are likely to include training for contractors and job seekers who prefer to be served in a language other than English and connecting these contractors with LOTE customers, business development, and skills support for MWBEs through the establishment of a contractor development pathway, among others. Second, MassCEC will also be an accountable partner and provide regular reporting to the EEAC and the Department regarding their efforts, including through quarterly reports and KPIs. The PAs have worked with MassCEC, DOER, and the Equity Working Group to develop KPIs for MassCEC efforts, which are included in Appendix M. This will help ensure that the \$72 million in customer funds transferred from the Mass Save programs to MassCEC are designed to support the equity-related workforce needs of the programs, that diverse trainees and businesses are given opportunities as available within the network of Mass Save contractors and vendors upon completion of their training, and that the PAs ultimately succeed in creating a more diverse workforce that better represents the communities in which they serve. For further details on MassCEC’s workforce development efforts, see Appendix M: MassCEC Equity Workforce Funding Levels (FY25-FY27).

Residential HEAT Loan – Residential

The Residential HEAT Loan budget includes costs to buy down the interest due on the loan and the cost to administer the loans.

Residential Education – Residential

The budget in the Residential Education Hard-to-Measure initiative is used to support public energy efficiency education efforts. For more information, see section 3.1.5: Residential Education.

Residential – Residential Conservation Services

RCS includes costs related to the energy assessments for residential participants in accordance with the Department's directions and the RCS statute. This line also includes the RCS Assessment as issued by the DOER. See 220 C.M.R. § 7.02; St.2012, c. 209, § 32.

Low-Income Energy Affordability Network – Low-Income

LEAN and the PAs work together to comprehensively serve income-eligible households across the state. LEAN delivers energy programs to income-eligible customers and also represents them in legislative discussions and regulatory proceedings in the state. The LEAN budget is used to pay for their administrative and personnel costs related to program implementation. For more information on LEAN, see section 3.2: Low-Income Sector.

3.4.1 Statewide Contact Center

For residential and small business customers, the Massachusetts PAs will launch a new statewide contact center to provide comprehensive support for all decarbonization offerings under the programs.¹⁴⁸ The statewide contact center will provide a single point of entry for residential and small business customers to engage with the Mass Save programs. Center support will include guidance for customers at the beginning of their journey who want information on where and how to start and the range of potential decarbonization

¹⁴⁸ The Compact already maintains a call center that provides comprehensive customer support for its customers. The Compact will continue to maintain its own call center and through the interactive voice response, customers that call into the statewide number will be transferred to the CLC call center as is done currently. Additionally, low-income customers will also continue to be served through the LEAN Statewide Client Services Center. Low-income customers who call into the statewide number will be transferred to the LEAN Statewide Client Services Center either by selecting that option on the interactive voice response or via a warm handoff from Statewide Contact Center staff to the LEAN Statewide Client Services Center.

solutions available for their home, as well as customers who have already started their decarbonization journey and are engaged with the programs.

The statewide contact center will be staffed by program specialists who are knowledgeable of all Mass Save offerings and who can assist with topics such as program guidance and eligibility information, Home Energy Assessments, Decarbonization Consultations, HEAT Loans, relevant tax credits or federal incentives, the Massachusetts Climate Bank's Energy Saver Loan, and the status of a rebate. Center staff will also be trained and equipped to help customers access incentives and get started with decarbonization efforts outside of the Mass Save programs, such as EVs and distributed solar installations. Initially, program specialists will be trained to provide a general overview and field basic questions on these topics and to facilitate a warm hand-off to specific vendors where they have a particular need. For example, if a customer's rebate application shows that it is missing information then a program specialist would be able to provide background on the status of their application and provide a warm hand-off to the rebate processing vendor to help the customer upload the necessary information to complete the rebate application. Over time and based on experience with implementation, the PAs will work to limit the number of hand-offs where possible.

Customers will be able to access these comprehensive resources via phone, chat, and email—enabling customers to engage with program specialists in the mode of their choice. Program specialists will also be equipped to provide customers with language services as needed.

3.4.2 Community Outreach

Community First Partnership

The Community First Partnership is a cornerstone initiative aimed at promoting equity and participation in energy efficiency programs by leveraging relationships with trusted community partners to promote residential weatherization and HVAC, small business turnkey services, and serving financially constrained customers, renters, and LOTE customers. The CFP provides eligible municipalities and community groups an opportunity to apply for partnership with the PAs to receive funding to support increased awareness and participation of Mass Save offers. The PAs understand that the most effective way to reach communities is to fortify these relationships and community-specific insights. The program aims to arm communities and community partner Energy Advocates with program knowledge to share with community residents. The PAs work closely with community partners to understand the needs of communities and customers, leading to improvements in processes and services.

Interested municipalities and community groups submit the program application for participation for a specified term. The program gives priority to environmental justice communities, LOTE customers, low- and moderate-income customers, and small businesses. The PAs and their CFP vendor also work proactively to recruit new partners, especially environmental justice communities.¹⁴⁹ Community partner applicants must include their planned goals and activities to support these objectives, as well as a detailed budget of how they will allocate program funds. Once selected, the PAs require community partners to attend an orientation and several other technical and program-related training sessions throughout the duration of their partnership.

A critical aspect of the CFP is the Energy Advocate role. The program requires community partners to hire an Energy Advocate. The Energy Advocate is a representative from the community who is a point of contact for the partnership and is responsible for:

- Promoting Mass Save and energy efficiency offers awareness throughout the community.
- Working with the competitively procured Lead Implementation Vendor and PAs to track and record participation barriers.
- Actively communicating with customers guides them through the process, and broker communication with stakeholders to reduce program participation barriers.
- Working to ease barriers or confusion by supporting coordination between program vendors and customers.
- Managing a community-based social marketing campaign for increased awareness and adoption of energy positive behaviors.
- Assisting with language support services.
- Providing community-specific feedback to the PAs for continuous improvement.

Through ongoing communication with community partners during the 2022-2024 term, the PAs have identified areas for improvement. For the 2025-2027 term, the PAs will incorporate some changes to help support existing barriers, contribute to equity goal achievement, and position the program for impactful and inclusive

¹⁴⁹ One of the main criteria used to prioritize recruitment efforts is the number of households within environmental justice census blocks.

participation. The multifaceted approach aims to address the unique needs of diverse communities. The PAs' planned enhancements include:

- **Partnership structure modifications.** The PAs plan to adjust a Community Partner's term to be three years.
- **Increased funding for Energy Advocates.** Initial feedback during the 2022-2024 term indicated additional funding should be considered to support Partners' efforts in their communities. Areas of need focused on additional funding for Energy Advocate salaries to help reduce turnover, and additional support for marketing and campaign carve-outs.
- **Streamlined marketing processes.** The PAs are committed to developing a streamlined process for community partners to access approved marketing materials, and to allow for more flexibility for piloting new messaging and marketing approaches to leverage their unique experience with their own residents and small businesses, beyond a pre-approved "a la carte" list of materials.
- **Additional marketing support.** According to community partner feedback, customer experience improvements have emerged from pilot marketing programs.
- **Improving data access.** The PAs are committed to working with community partners to enhance data sharing while remaining protective of customer privacy. Further details on these efforts are included in section 5.3.2: Current Data Sources and Future Plans for Enhancements.
- **Coordinating Community First Partnership and small business efforts.** With the additional funding proposed for CFPs, the PAs plan to provide more support and training to CFP vendors and Energy Advocates on the incentives and offers available to small business customers. This will help give CFPs the tools to be able to have conversations with small businesses and drive more small business assessments and participation. The PAs will also align Main Streets marketing assets with the program's equity focus.

Community Education Grant

For the 2025-2027 term, the PAs plan to continue the Mass Save Community Education Grant to support communities, with a focus on environmental justice communities, and bring energy efficiency education programs to their residents in new and exciting ways. The Community Education Grants are designed to allow community-based organizations more flexibility to provide creative outreach solutions testing new and innovative outreach approaches. The grants can range from \$5,000 to \$25,000 based on the proposal received and the proposed impact by the outreach efforts. The PAs prioritize increased engagement with local

communities through energy efficiency educational programs to promote grass-roots engagement with community members. Outreach efforts funded by this grant can include but are not limited to hosting energy efficiency community events, and collateral distribution in unique ways such as giveaways, through food pantry partnerships, advocacy trainings, and house of worship events.

Grant applicants must meet certain eligibility requirements, and acceptance is subject to review and approval of submitted applications. Community Education Grant recipients are responsible for ongoing check-ins with the PAs as well as providing frequent reporting on progress. The grant opportunities are open to all communities with a focus on reaching environmental justice communities. Recipients have additional community reach and can help promote awareness of Mass Save program available to the residents of their communities.

3.4.3 Language Access

It is critical that language is not a barrier to accessing Mass Save services. The PAs commissioned language access research during the 2022-2024 term to identify key recommendations to better serve residential and small business customers in their preferred language. Language access is defined as ensuring meaningful access so that LOTE customers can fully participate in and communicate with programs, services, and information. In the 2025-2027 term, the PAs will build upon the findings from this work and integrate the language access recommendations into the various programs to better serve LOTE customers. The intended outcome will provide language access policies and protocols as well as other tools, services, and guidelines to serve the residential and small business customer populations of the five most commonly spoken languages other than English, including Spanish, Portuguese, Haitian-Creole, Mandarin, and Cantonese.

The language access research provides actionable recommendations to ensure Mass Save initiatives can provide meaningful access for current and prospective participants, across many customer touchpoints and communications and addresses how program resources can meet existing and future language access needs.

Areas of language access review included:

- Assessing language needs and current language assistance services.
- Training and resources available for program staff and stakeholders.
- Quality control of language assistance services.
- Monitoring and evaluating program usage.

- Establishing a language access customer resolution process.
- Strategic recommendations and opportunities to improve language services.

The PAs competitively procured services from language access experts for this project, which included the following five phases.

Figure 40: Phases of Developing Language Access

Phase	Description
Phase A: Internal Needs Assessment	A comprehensive analysis of the current state of language access services within each of the five individual energy efficiency programs (Residential Coordinated Delivery (now renamed Residential Turnkey Solutions), Residential Retail (now renamed Residential Rebates), Low Income, Residential New Construction, and Small Business Turnkey). This phase involved a comprehensive data collection process from program and vendor staff through surveys, interviews, and group discussions. Following this data collection process, the vendor made recommendations that highlighted key findings regarding language access infrastructure across stakeholder groups. These included perceptions of language access and LOTE participant experiences; existing language access practices and resources; and language access digital engagement and marketing practices.
Phase B: Community Engagement Needs Assessment	The PAs hosted language-specific focus groups with current and prospective LOTE program participants across Massachusetts. The Vendor partnered with community-based organizations to engage in this data collection effort.
Phase C: Multilingual Technical Terms Glossary	Development of a cross-program glossary of the most commonly used technical terms. The glossary aims to establish plain language English definitions for each term, and to provide term translations in Spanish, Portuguese, Haitian Creole, Simplified Chinese, and Traditional Chinese. The glossary will be a key resource that supports program participants across respective language communities, as well as language service providers and Sponsor marketing staff developing in-language content.
Phase D: Language Access & Marketing Recommendations:	Cross-program recommendations to improve language access infrastructure, including culturally specific means of communication and outreach to customers via media they follow and trust. These include carefully translated marketing materials, imagery with people who look like members of their community, using WhatsApp and TV and radio stations in their languages, such as Telemundo, and in-person tabling events with people who speak their language.

Phase	Description
Phase E: Training with Program Staff and Vendors	Development of an introductory training course designed to familiarize program and vendor staff with key definitions and concepts around language access within Mass Save sponsored programs. This training offers participants an opportunity to explore perspectives and examples of how language access impacts their own lives, their work, and those of the customers they serve daily.

As part of their review, the language access vendor provided a Four Factor Analysis in their approach to evaluating language access needs and providing recommendations. This approach included the following analysis with the following key insights identified.

Factor 1: The number or proportion of LOTE persons in the equitable services population

When deciding which language services to provide, one important factor to consider is the number or percentage of LOTE individuals from a specific language group who are served or encountered in the eligible service population. The greater the number or percentage of LOTE individuals from a particular language group, the more likely it is that language services will be necessary. Typically, individuals who are served or encountered in the eligible service population are considered “eligible to be served” or “likely to be directly affected” by an agency’s program or activity. The top spoken languages at home among LOTE speakers in order are Spanish, Portuguese, Mandarin, Cantonese, Haitian Creole, Vietnamese and Russian.

Figure 41: Data on the Most Commonly Spoken Languages in Massachusetts

Top Six Languages Spoken at Home by LOTE Speakers	Percentage (%) of Total LOTE Speakers	Top Six Languages Spoken at Home by Low-Income LOTE Speakers	Percentage (%) of Total Low-Income Speakers
Spanish	52.4%	Spanish	57.3%
Portuguese	18.7%	Mandarin and Cantonese	13.8%
Mandarin and Cantonese	14.9%	Portuguese	12.4%
Haitian Creole	6.5%	Haitian Creole	6.0%
Vietnamese	4.5%	Vietnamese	5.4%
Russian	3.0%	Arabic	4.1%

Source: SwayB Access, Language Access Recommendations for Mass Save Programs, pp. 11-12.

Factor 2: The frequency with which LOTE persons encounter the program

Organizations should evaluate, as accurately as possible, the frequency of interactions with LOTE individuals from different language groups who require assistance. The higher the frequency of interaction with a certain language group, the greater the need for improved language services in that language. The actions appropriate for a recipient serving a LOTE individual on a one-time basis will differ significantly from those expected from a recipient serving LOTE individuals daily. Moving forward, the PAs will work to track engagement with LOTE customers through several new metrics noted in section 5.4: Operational Metrics and Key Performance Indicators.

Factor 3: The nature and importance of the program, service, or activity

The Program Administrators found that customers are more likely to need language services when the activity, information, service, or program is of greater importance or when the possible consequences of the contact to the LOTE individuals are greater. Organizations should determine if denial or delay of access to services or information could have serious implications for the LOTE individual. Decisions by the PAs to publicly promote a program or service can provide strong evidence of the program or service's importance. As a result, the PAs will be prioritizing the identification of vital documents for translations, and interpreter service availability.

Factor 4: Resources available and the costs of providing language services

When determining the steps they should take to provide language services, organizations should consider their level of resources and any imposed costs. The Program Administrators cannot expect an organization with more limited budgets to provide the same level of language services as a program with larger budgets. It is important to note that "reasonable steps" may become unreasonable if the costs imposed substantially exceed the benefits. In addition, programs should not limit language assistance solely due to resource concerns. Instead, they should thoroughly investigate the most cost-effective ways of providing competent and accurate language services.

The language access research noted that the Program Administrators have professionally translated the Mass Save website into Spanish and Portuguese. Also, the research shows translation agency services are available when the PAs identify a need for professional translation services. There are also a variety of other distinct language access related resources available by program. The needs assessment research identified several insights into LOTE customers and their perception of availability of services. These findings led to the development of recommendations, including some examples listed below:

- Residential customers and small business customers reported a lack of familiarity with Mass Save, its incentives, products, or services. Spanish, Chinese, and Haitian Creole speaking communities were particularly unfamiliar, while Portuguese customers were more familiar.
- LOTE customers overwhelmingly prefer in-language communication.
- Partially translated content on the Mass Save website abruptly disrupted or ended LOTE customers' in-language journeys.
- LOTE customers reported that they often must seek support from an English-speaking acquaintance for language support or to access information.
- Across programs there are varying levels of language services, including telephonic interpreter services at call centers, translated materials, and/or bilingual staff.
- Some challenges exist with the translated content on the Mass Save website including the use of English technical terms, partially translated information, and links to English only resources.

The PAs are committed to implementing the language access recommendations provided from the research commissioned during the 2022-2024 term. The recommendations include:

Staffing

- Designate language access dedicated resources
- Hire and train bilingual customer support staff

The PAs have already begun allocating dedicated language access staff to support the implementation of the recommendations. Additionally, through the PA Lead Implementation Vendors, the PAs continue to actively recruit bilingual staff and are working to ensure that bilingual customer support staff are available to support LOTE customer needs at the Statewide Contact Center currently under development. Additionally, it is important to note that the LEAN Statewide Client Services Center already provides in-language support for customers that speak Spanish, Portuguese, Haitian-Creole, and French as their preferred language.

Interpreter Services

- Ensure availability of language interpreter services within call centers
- Ensure the availability of interpreter services for in-person interactions

The PAs offer language interpreter services through the Lead Implementation Vendors for all of the five most commonly spoken languages and will also ensure this service is available via the upcoming Statewide Contact Center. The Program Administrators use interpreter services for events where languages in which a vendor does not have staff who speak those languages or their staff who can speak the language are unavailable. Additionally, the PAs plan to survey participating contractors and Mass Save partners to better understand the language capabilities in their network and better pair LOTE customers with contractors or energy specialists who can serve them in a language other than English.

Tracking and Feedback

- Develop approaches to track the provision of language services and effectiveness
- Track and document participant needs
- Identify opportunities for ongoing collection of participant feedback

Through the development of KPIs, the PAs have begun working on relevant metrics to track the success of language access efforts. The PAs are working with the evaluation and implementation teams to discuss additional metrics and data collection points to help support managing the effectiveness of their language access efforts for continuous improvement.

Program Materials and Website

- Identify, simplify, and translate vital documents.
- Conduct a QA review of translated content on MassSave.com.
- Explore integration options for translation management systems with existing content management systems.
- Develop a central repository for multilingual materials and translate program related promotional materials.

The PAs are committed to implementing these recommendations over the course of the 2025-2027 term. The language access teams have begun working with the Marketing teams to develop implementation plans and timelines for the translation of vital documents, reviewing current QA/QC processes for translated content on MassSave.com for any needed changes, identifying a centralized repository to store translated program materials, and exploring translation management systems.

Contracting and Budget

- Allocate a language access budget.
- Centralize vendor contracts with translation and interpretation service providers.
- Developing standardized language service provisions in vendor agreements and contracts.

The Program Administrators have included a Language Access budget in the 2025-2027 Plan budget tables to support the recommendations. The PAs plan to work with their procurement and legal teams on opportunities to standardize contract language and for centralized translation and interpretation services.

Training and Marketing

- Conduct staff and vendor training for language access.
- Promote and raise awareness of the availability of language services.

The Program Administrators will work to raise LOTE customer awareness of available language services, so customers know the PAs can serve them in other languages. The PAs will work with their marketing teams and community partners to advertise program offers in languages other than English and work to ensure continuity of services in that customer's preferred language.

Language Access Marketing Insights and Recommendations

The Language Access lead vendor conducted 38 focus groups with residential and business customers across various regions including the Merrimack Valley, Boston Metropolitan, Framingham, Worcester, Springfield, Holyoke, and Brockton/South Shore to better understand customer perception and awareness of Mass Save offerings. The vendor selected participants to better understand nuances within language communities, differences in cultural heritage (e.g., Puerto Rico vs. Dominican Republic), and socioeconomic status within language groups, such as those present among Mandarin and Cantonese speakers living in Boston Chinatown vs. Quincy.

Based on these focus group discussions, the vendor was able to share the following recommendations for more effective marketing to customers who prefer to be served in a language other than English.

Figure 42: Language Access Focus Group Findings and Recommendations

Marketing Insights	Recommendations
Cultural Sensitivities	• Where individuals, families, households, or neighborhoods are depicted, imagery must resemble the targeted LOTE community.

Marketing Insights	Recommendations
	• In-language communications are key to expedite interest in Mass Save programs and facilitate the customer journey. • Understand whether the customer is a tenant or landlord and message accordingly.
Messaging Recommendations	• Use short, engaging advertisements that speak to the benefits of the program: economic, comfort, health, etc. • Work with trusted intermediaries or 3rd party validators (organizations or people) whose cooperation lends credibility to Mass Save. • Understand where LOTE communities consume information and then engage through these channels (e.g., TV, radio, social media, closed social networks, CBOs, churches, etc.).
Information Awareness & Credibility	• Establish trust and credibility through their attendant CBOs. • Be present in the community - many of the LOTE communities want a “local” presence via events and local customer service resources. • For businesses, go to the businesses and speak directly to them about how Mass Save programs specifically help their bottom line.

Recommendations developed in response to these insights include:

- Update marketing materials around cultural relevance:
 - Make marketing materials succinct and punchy and convey economic benefit.
 - Include markers for saving money (\$\$ signs, piggy bank).
 - Use imagery of multigenerational families, diverse skin tones, urban housing.
- Establish a community outreach team with members who are from the neighborhoods.
- Lay out a framework for the nuanced messaging for landlords vs. tenants.
- Work with CBOs and local influencers to create and share content on relevant social media channels.
- Launch campaigns in key LOTE communities.
- Sponsor relevant events.

The PAs will work with their marketing and community teams to review and incorporate the recommendations provided. The PA marketing teams will also consider strategies to support promotion of all programs in the five

most commonly spoken languages other than English throughout the term. Additionally, the PAs will consider the research and recommendations as they develop detailed marketing plans. For more information on Mass Save Marketing, see section 6: Marketing.

3.4.4 Workforce Development

The PAs are committed to promoting a just transition to a clean energy future, which includes supporting a robust diverse workforce that truly reflects the needs of the communities they serve in. In the 2025-2027 term, the PAs plan to build on the successes and lessons learned for workforce development efforts in the 2022-2024 term and continue to promote opportunities for education, training, awareness, and access to energy efficiency careers. Over the 2025-2027 term, the PAs will host Supplier Diversity Summits, provide funding for Mass Save Workforce Training Grants and continue to work towards connecting diverse suppliers with their existing vendors and program opportunities through direct outreach and networking. Eversource and National Grid will also continue to support the Clean Energy Pathways program.

Supplier Diversity

The PAs understand that supplier diversity serves as a catalyst in advancing energy justice, economic justice, grid modernization, and environmental justice. Intentionally diversifying the pool of suppliers can rectify disparities in energy efficiency, ensuring underrepresented businesses have equitable access to economic opportunities in the sector. The intentional inclusion of diverse suppliers contributes to the economic empowerment of environmental justice communities, aligning with broader diversity, equity, inclusion, belonging, and justice goals. Moreover, as the energy landscape evolves toward grid modernization, diverse suppliers will bring fresh perspectives, fostering innovation and ensuring the fair distribution of economic benefits and opportunities.

Minority- and Women-Owned Business Enterprise Study

The PAs worked with Miller3 Consulting, Inc. to explore how they used MWBE contractors in delivering energy efficiency services across Massachusetts. The study looked at data from 2016 to 2021 and focused on four primary areas of spending: (1) Program Administration, (2) Marketing, (3) STAT, and (4) Evaluation & Market Research. The analysis sought to identify how many MWBEs were available in identified NAICS codes that could potentially support these areas, whether the PAs were contracting with them, and how to improve their participation. To get a clear picture, the team analyzed procurement records, vendor lists, and conducted surveys and focus groups with Program Administrators.

The findings showed gaps between how many MWBEs were available and how often the PAs awarded them a contract. In many cases, non-MWBE contractors dominated. While women-owned businesses did have a strong presence in Marketing, they were underrepresented in Evaluation & Market Research. Meanwhile, minority-owned businesses—especially those owned by African Americans, Hispanics, and Asian Americans—were underutilized across multiple categories.

To bridge this gap, the study proposed several solutions. It recommended both targeted and broad-based strategies, such as updating procurement policies, increasing outreach efforts, and fostering collaborations between MWBEs and larger companies. The study also stressed the need for the PAs to set supplier diversity targets and to establish better tracking of data to monitor progress.

Establishment of an Aspirational Benchmark

While the PAs are still reviewing the recommendations of this recently completed study, they are taking several immediate steps to increase supplier diversity in response to study findings and the Council's recommendations. The PAs will set an aspirational benchmark¹⁵⁰ to spend 15 percent of dollar volume of direct Mass Save contracts with diverse suppliers for the 2025-2027 term. To achieve enhanced supplier diversity, the PAs will work diligently to build a pipeline of diverse suppliers, support them in responding to RFPs, and establish new metrics. The PAs will report these metrics annually, to measure progress towards this benchmark. Separately, the PAs will also survey the contractor community on a regular basis to identify which of them are diverse and will make this information publicly available on the Mass Save website for interested customers.

Additionally, the PAs are committed to increase diverse supplier participation by:

1. Publicly posting notice of opportunities and reaching out proactively to directly invite diverse suppliers to respond to specific RFPs.
2. Educating diverse suppliers on opportunities to work with Mass Save through annual Supplier Diversity Summits.

¹⁵⁰ The PAs will not use the benchmark to preference or disadvantage certain suppliers based on race, gender, or sexuality in our individual procurement decisions. The benchmark is aspirational and expressly does not require a certain percentage of spending or quota be spent on diverse suppliers.

3. Facilitating quarterly and RFP-specific matchmaking opportunities to connect diverse suppliers with lead vendors
4. In some cases, individual PAs are asking vendors to voluntarily provide a percent that they can commit to spend on diverse subcontractors. Where those vendors are selected, those voluntary commitments will become part of the terms and conditions on the contract with that vendor that the PA is able to track against.
5. Creating and funding a diverse vendor network to help coordinate upcoming RFP opportunities and share best practices among diverse suppliers.

Supplier Diversity Summits

The PAs designed these events to inform diverse suppliers of opportunities that exist within the Mass Save ecosystem and encourage networking amongst the PAs and existing vendors. During the 2025-2027 term, the PAs will continue to host Supplier Diversity Summits annually in centrally located areas to ensure geographic inclusivity, with considerations for access to public transportation. Over the last two years, the summits have grown—attracting 100 participants in 2022 and over 150 in 2023. Targeted outreach has been conducted to minority and women-owned enterprises statewide with a description of services related to HVAC technicians, electricians, and weatherization service providers. Throughout the term, the PAs plan to engage with diverse suppliers to support these events aligning with their commitment to inclusivity in both content and execution.

Matchmaking Initiatives

The PAs also intend to implement a structured matchmaking component to foster collaborations between diverse suppliers and the Mass Save lead vendors. Throughout the 2025-2027 term, the PAs plan to incorporate intentional matchmaking activities into their supplier diversity initiatives. Matchmaking plays a crucial role in advancing supplier diversity by fostering meaningful connections between diverse suppliers and procurement opportunities, and existing vendors with workforce needs. The deliberate pairing of minority-owned, women-owned, veteran-owned, or other diverse businesses with the PAs, and contracted vendors not only promotes economic inclusion but also enhances the overall business landscape.

Through intentional matchmaking, the PAs can ensure a diverse pool of businesses join the various existing contractor networks and compete for contracts. This not only brings innovation and unique perspectives to the supply chain but also contributes to the development and sustainability of underrepresented businesses. By fostering intentional connections, the PAs can create a more equitable marketplace, drive economic growth in

marginalized and environmental justice communities, and build a foundation for long-term business success grounded in diversity and inclusion.

Diverse Vendor Network

In the 2025-2027 term, the PAs also plan to develop a Diverse Vendor Network, which they will host on MassSave.com. The goal of this effort is to let diverse suppliers and individuals know of upcoming RFP opportunities and to connect diverse suppliers with resources on the programs and available Mass Save trainings. This platform will include a calendar of training opportunities supported by the PAs and upcoming RFPs, provide information for contractors interested in being involved directly with the PAs' programs who are not currently involved and share links to in-person and virtual trainings.

Contractor Development Pathways

In addition to the summits to inform diverse suppliers of opportunities, matchmaking to connect them to lead vendors, the PAs are working with MassCEC to establish a Contractor Development Pathways offer. The aim is to provide business development support to diverse suppliers. The goal of the Contractor Development Pathways offer is to:

- Increase the number of MWBEs in the clean energy workforce.
- Provide access to information about opportunities within Mass Save. Connect the vision of Contractor Development Pathways to Supplier Diversity Summits.

The PAs will work collaboratively with MassCEC, who will lead this effort, to develop an equitable pathway to contractor development, with a focus on MWBE contractors. See Appendix M: MassCEC Equity Workforce Funding Levels (FY25-FY27) or further details on the Contractor Development Pathway. In support of these efforts, the PAs will also work with their implementation, procurement, and lead vendor program staff to create a general, as well as program-specific, contractor journey pathway. The PAs will publish this pathway on MassSave.com.

Clean Energy Pathways

The Clean Energy Pathways program is a full-time, paid internship that aims to promote interest and participation in the energy efficiency workforce in designated regions across Massachusetts. The integration of more individuals from environmental justice communities into the energy efficiency workforce, particularly in

HVAC and weatherization jobs, is imperative for advancing the principles of Justice40.¹⁵¹ The Clean Energy Pathways program aims to create a sustainable pipeline of qualified professionals for high-demand careers in the energy efficiency industry, to increase the diversity and equity of the workforce by recruiting participants from environmental justice communities across Massachusetts, and to ensure program participants are equipped with the skills necessary to deliver current and future energy efficiency programs. Building on the 2022-2024 term, Eversource and National Grid plan to continue the current model of the Clean Energy Pathways program, building on key lessons learned in the 2025-2027 term.

The PAs deliver the program through several implementers including a competitively procured Lead Implementation Vendor, community-based organizations, Business Partners, and training providers.

- The **Lead Implementation Vendor** is responsible for overall program management including recruitment of community-based organizations, Business Partners, and training providers.
- **Community-based organizations** have rich networks in their communities and leverage these connections to access local people. The program works with these community-based organizations to recruit prospective interns, support interviewing and resume development, and provide wraparound support services for the duration of the internship.
- **Business Partners** are local Mass Save participating HVAC or weatherization contractors who have signed on to accept Clean Energy Pathways interns for on-the-job training experience. The PAs encourage Business Partners to hire Clean Energy Pathways interns for full-time positions after the internship has concluded.
- **Training providers** are responsible for providing the expertise, knowledge, and career-readiness training for new entrants in the energy efficiency workforce.

Since its inception in 2021, the Clean Energy Pathways program has made significant gains in helping the PAs invest in their communities and the energy efficiency workforce learning and consistently adapting to support the needs of interns and business partners. Introducing new and diverse entrants to these fields not only bolsters the workforce but also champions a more just and balanced approach to environmental sustainability, thereby contributing to the realization of a cleaner, greener future for all.

¹⁵¹ See [Justice40 Initiative](#).

Recruitment

Recruitment for the Clean Energy Pathways program is conducted locally, with the majority of applicants being recruited directly by community-based organizations. Applicants who are interested in the Clean Energy Pathways program must complete an online application on MassSave.com. The Lead Implementation Vendor then conducts interest checks with all eligible applicants to ensure they understand the program, are available to work full time, and are still interested in exploring a career in HVAC or weatherization. From there, eligible applicants will complete an interview with the Lead Implementation Vendor and Business Partners who will select applicants to extend internship offers.

To enhance program success in the 2025-2027 term, the PAs propose several changes including extended and intensive career readiness training for participants, establishing long-term contractual relationships with partners for multiple cohorts, and shifting program focus to regions with strong partnerships and identified needs. In addition, the PAs plan to focus on only one region per cohort, which will allow for simplified coordination and recruitment, more opportunities for in-person training, and decreased transportation costs. Finally, increased support for supervisors involved in participant training is suggested to make participation more attractive. These proposed changes aim to address challenges and create a more sustainable, impactful workforce development program.

Successes and lessons learned

The collaboration with community-based organizations proved instrumental in fortifying the Clean Energy Pathways program. By strategically partnering with a community-based organization that specializes in teaching interpersonal skills, the program successfully addressed and mitigated drop-out rates. The incorporation of a community-based organization, led by a public speaker and mental health advocate, brought a comprehensive approach to the program. This collaboration went beyond the traditional academic framework, focusing on challenging and dismantling limiting mindsets. The workshop series facilitated by the community-based organization covered a comprehensive range of skills, including fostering a growth mindset, developing emotional intelligence, enhancing financial literacy, and building meaningful relationships. The integration of these essential life skills significantly strengthened the overall effectiveness and impact of the program.

Going forward, the PAs will be working with community-based organization partners and MassCEC to connect these organizations with opportunities to apply for additional funding from MassCEC to provide much needed

wrap around support services. See Appendix M for further details on MassCEC workforce diversity efforts, including planned solicitations for wrap-around support.

Mass Save Workforce Training Grant

The PAs recognize training new and diverse candidates may require additional investments in resources to reduce barriers to training and entering the energy efficiency workforce. The Mass Save Workforce Training Grant will provide funding annually for energy efficiency training and certification programs. The grant seeks to increase the sustainability of the energy efficiency workforce by supporting training and transitioning new workers into the energy efficiency workforce. This grant is centered around reaching environmental justice communities and will prioritize supporting diverse individuals within these communities. This grant supports increased training and certification completion rates amongst diverse program participants by alleviating the financial hardship that may pose as a barrier to participation.

The PAs welcome applications from individuals and/or organizations who can support the training of individuals. The Mass Save Workforce Training Grant will provide funding to training programs and community colleges to subsidize the cost of energy efficiency training and/or certifications for a group of applicants. It will also provide funding for individuals who wish to complete energy efficiency training and/or certifications. Interested parties apply and attend an orientation.

Diversity, Equity, and Inclusion Education and Training

Building upon a planned 2024 training, the PAs intend to offer a Diversity Equity, Inclusion, Belonging, and Justice training for all PAs, lead vendors, and other participating partners annually throughout the 2025-2027 term. It is critical for all Mass Save partners to have a common baseline understanding of diversity, equity, and inclusion to ensure it is at the root of the PAs' strategy and delivery of energy efficiency programs.

3.4.5 HEAT Loan

The PAs have seen continued interest and participation in the HEAT Loan since its initial offering in 2006. The HEAT Loan has proven to be popular as it has allowed customers to finance approved energy efficiency measures at a zero-percent interest rate. Over the years, the PAs have adjusted the HEAT Loan offering such as expanding the list of eligible measures and periodically adjusting the loan cap. As the PAs have worked toward advancing electrification goals, there has been greater interest and participation in the HEAT Loan for measures with higher costs. Given the increased volume of loans, rising interest costs, expansion of 100 percent coverage for moderate-income customers, and the desire to reduce costs associated with the loan and allocate additional budget to equity priorities, the PAs have sought to redesign the HEAT Loan offering.

For the 2025-2027 term, the HEAT Loan will offer zero-interest financing opportunities up to \$25,000 with terms up to seven years for the installation of specified energy efficiency and electrification measures with term length being contingent on customer household income level. The PAs designed the HEAT Loan to help alleviate upfront capital costs for customers when installing energy efficiency measures.

Program Design

The HEAT Loan is available to qualified residential customers participating in a Mass Save program. Loan applicants must be the homeowner and eligible to apply for the HEAT Loan on qualified measures. HEAT Loans are available for a variety of energy efficiency purchases. Eligibility criteria and borrowing limits are set for each type of purchase. As stated above, the term length of the loan is contingent on customer household income. More specifically, the PAs will continue to offer a 7-year repayment term at 0% interest for households earning up to 135% of SMI.¹⁵² Customer households earning 135% up to 300% of SMI and those earning above 300% of SMI will be eligible for 5-year and 3-year loan terms, respectively, at 0% interest rate. The Heat Loan cap is \$25,000 for all income levels.

The PAs work with a network of participating HEAT Loan lenders, including banks, credit unions, and other lenders. The Heat Loan provides financing for the installation of the following energy efficiency measures:

- Program-eligible weatherization.
- Specified pre-weatherization barriers.
- ENERGY STAR certified replacement windows (must be done in conjunction with weatherization, if weatherization is recommended).
- Residential batteries enrolled in ConnectedSolutions.
- Heat pumps are installed to support space heating and cooling.
- Heat pump water heaters.

Vendors determine HEAT Loan eligibility during a Home Energy Assessment and provide customers with the necessary intake information. Next, customers can solicit quotes for their project work (as needed) and select a proposal. The vendor submits the information to the Residential Turnkey Solutions Lead Implementation Vendor who reviews and approves the project. Once approved, the customer receives an authorization form

¹⁵² Note: this bracket aligns with income requirements for the Energy Saver Loan offered by the Massachusetts Climate Bank.

with the total eligible loan amount, which includes the cost of the project, less any eligible rebates or incentives, that they can take to their preferred lender for approval.

Lending approval is subject to an individual lender's approval criterion. Once the lender approves the customer to receive a HEAT Loan, the PAs pay the lender to buy down the interest rate to zero percent for the customer and the customer then repays the loan at zero percent directly to the lender. The process for applying for a HEAT Loan is described in detail at <https://www.masssave.com/en/saving/residential-rebates/heat-loan-program/>.

Customers may learn about the HEAT Loan program in several ways:

- **Energy specialists.** During the Home Energy Assessment, Energy Specialists promote the HEAT Loan to customers with an opportunity for an eligible measure.
- **Heat Pump Installer Network.** The HEAT Loan is particularly attractive to customers financing expensive installations, such as new heating and cooling equipment, and for that reason, this offer is also often promoted by the PAs' HPIN.
- **Community First Partners.** Community partners participating in the Community First Partnership also promote the HEAT Loan along with other program incentives and services.
- **Participating lenders.** Many lenders promote the HEAT Loan themselves, providing another pathway for customers to enter the PAs' programs.

Any savings or costs associated with installing energy efficiency measures due to the availability of the HEAT Loan are included in the programs under which the measure was installed. For example, savings for a heat pump submitted by a downstream rebate would be accounted for within the Residential Rebates program, and savings from a heat pump facilitated through the turnkey offering would be accounted for within Residential Turnkey Solutions. The PAs arrange for payment to the lender to buy down the interest rate to zero percent for the customer.

HEAT Loans have been administered by the electric PAs, except for instances in which a gas PA serves a customer in a municipal electric utility territory, in which case the gas PA would offer the loan. Starting in the 2025-2027 term, HEAT Loan funds will be shared between electric and gas PAs. The PAs collaborate with the Massachusetts Bankers Association to provide procedures for banks to participate in the Residential sector programs, and schedule check-ins to provide updates and collect feedback.

In an effort to keep HEAT Loan costs down, the PAs will also undertake cost saving efforts such as cross promoting other financing opportunities with the Massachusetts Community Climate Bank to reduce the number of HEAT Loans. The PAs will also explore opportunities to negotiate an interest rate reduction with lenders relative to current levels and consider the potential for establishing risk mitigation mechanisms (including, but not limited to, a loan loss reserve) to help support such reductions. Further, the PAs will establish a stakeholder working group, which includes the AGO, DOER, and the Council Consultant team, to explore options for bringing down HEAT loan costs, including the potential for accessing outside capital. Finally, the PAs have committed to completing a HEAT Loan Study to evaluate the importance of the HEAT loan in driving uptake of improvements and the sensitivity of those decisions to customers of different income levels at different interest rates, with a goal of determining whether the PAs can make further modifications to the HEAT loan that will reduce costs without impacting the effectiveness of this vital program.

Section 4: Evaluation, Measurement, and Verification

EM&V has been an integral component of the efficiency programs in Massachusetts since their inception. The robust EM&V framework has supported the development and continuous improvement of demand side management programs as they adapt to changing markets. As these programs continue to evolve from strictly traditional energy efficiency offerings to more holistic decarbonization programs, EM&V will need to focus on the effectiveness of PAs' efforts to improve the customer journey toward decarbonization and align with the Commonwealth's GHG reduction goals.

Evaluation plays an essential role throughout the program lifecycle, from conducting research to informing new program designs and providing insight into key priorities such as equity and electrification, as well as assisting implementation in developing program theory, assessing demonstration projects for new offerings, and verifying claimed savings and benefits from mature programs. Importantly, evaluation practices are evolving to track progress toward market transformation and assessing the PAs' role in shifting markets toward more efficient standard practices. Through Mass Save, Massachusetts has invested heavily in EM&V research and leads the country in terms of comprehensive, in-depth evaluations.

The key purposes of EM&V are to support continuous program improvement and program innovation, ensure accurate and credible impacts, assist in determining cost effectiveness, and support timely regulatory reporting to the Department and ISO-NE. These purposes are interactive, mutually reinforcing, and critical to the continued success of the programs.

4.1 EM&V Framework

Consistent with previous three-year plans and Department precedent, the PAs propose to continue the evaluation framework that has successfully featured nation leading, third-party EM&V efforts in Massachusetts. It is critical that the Commonwealth's energy efficiency programs be evaluated, measured, and verified in a way that provides confidence to the public at large in the results of the programs. EM&V efforts enable the PAs to report savings to the Department with full confidence. Additionally, it is critical to ensure both the reality and the perception of the independence and objectivity of EM&V activities. Accordingly, the EEAC will continue to have an oversight role over the EM&V activities of the PAs, which will help ensure consistency, timeliness, and credibility of the results. The EEAC's oversight role will be accomplished through

the EEAC's EM&V consultant ("EM&V Consultant"), a third-party expert consultant who has primary responsibility for working with the PAs to plan and implement robust EM&V in Massachusetts.

The PAs and the EM&V Consultant will continue to work diligently to reach consensus on evaluation issues throughout the 2025-2027 term. If there are areas of difference that arise that cannot be resolved through consensus during the ongoing interactive process between the EM&V Consultant and the PA evaluation staff, authority for decision making will reside with the EM&V Consultant and the EEAC.

To enable the PAs to fulfill their responsibility to report program savings to the Department with full confidence, an appeals process has been established, through which the PAs may bring decisions made by the EM&V Consultant to the EEAC for review and resolution. This process is implemented through the formation of an evaluation appeals committee (Appeals Committee) of the EEAC, whose responsibility in this area is to hear the matter under dispute and rule so that the study may proceed in a timely way. In general, it is expected that this review process will be completed within 72 hours once an issue is elevated to the Appeals Committee.

The Appeals Committee consists of three voting members of the EEAC, including DOER. Consistent with general EEAC proceedings, the Appeals Committee will include and consult with, in both deliberations and decision making, a representative of both the PAs and the EEAC's consultant team, neither of whom shall have a vote in the Appeals Committee. The Appeals Committee will review the issues related to the disputed matter, hear from the PA evaluation staff and EM&V Consultant, and decide on the outcome of the matter. The decision will be recorded, along with a description of the applicable issues. The participants in the appeal will sign the record of the decision, indicating their acceptance of the representation of the issues and of the decision.

In exceptional cases, where the PAs perceive there to be significant risk to their ability to manage the energy efficiency programs in the near term, the PAs will note their disagreement with the decision of the Appeals Committee on the record of the decision and reserve the right to immediately petition the Department. The PAs shall be able to submit any such documents to the Department in conjunction with the filing of the three-year plans, mid-term modifications, plan-year reports, and term reports. The Department will be able to review the record of this decision in its review of three-year plans, mid-term modifications, plan-year reports, and term reports.

To date, the EM&V Consultant and PA evaluation staff have been able to resolve areas of differences specific to evaluation without proceeding to the Appeals Committee. This is a testament to the professionalism, hard work, and collaborative engagement of the PAs and the EM&V Consultant. The PAs are continuously looking

for opportunities to improve evaluation processes and address new issues that arise and may suggest updates to the EM&V framework in the future if needed.

The PAs will maintain a statewide focus to the maximum extent possible and review EM&V budgets with the EM&V Consultant. In addition, the PAs will integrate electric and natural gas evaluation efforts to the maximum extent possible. In addition, where possible, the PAs and EM&V Consultant will collaborate on evaluation studies conducted in conjunction with nearby jurisdictions to reduce costs. For example, during the 2022-2024 term, Massachusetts participated in regional studies related to C&I demand response programs and residential heat pump performance and usage.

The PAs are responsible for contracting with independent evaluation contractors and ensuring that they meet all required terms and conditions to protect customers' safety and property, as well as the privacy and security of customer data. Each PA signs contracts with each independent evaluation contractor to ensure its contractual requirements to protect customers are satisfied.

4.2 Evaluation Management Committee

The PAs and the EM&V Consultant established the Evaluation Management Committee ("EMC") as a steering committee for statewide evaluation issues, providing guidance and direction to each of the evaluation research areas. The EMC works to plan, prioritize, and delineate the research studies to be undertaken over the three-year plan term. The EMC meets monthly and serves as a forum to coordinate evaluation studies and related tasks, resolve issues, and set strategic direction.

The PAs and the EM&V Consultant have worked to consistently improve the EM&V process over time. The EMC has established working groups to review and address new topics, areas of concern, or disagreement. For example, the EMC requested that the C&I independent evaluation contractor host a monthly Baseline Advisory Group, which includes the PA evaluation staff and the EM&V Consultant, to discuss and build consensus on baselines and measure lives for complex measures that come up in custom evaluations or ex-ante reviews.

4.3 Descriptions of Research Areas

Consistent with experience since the establishment of the GCA, the EMC worked collaboratively to develop and refine four market research areas for the 2025-2027 term. These research areas are organized as follows: (1) Residential Energy Efficiency, (2) C&I Energy Efficiency, (3) Active Demand (both electric and natural gas demand for the Residential, Low-Income, and C&I sectors), and (4) Special and Cross Cutting. The Special and Cross-Cutting research area includes topics covering more than one research area, as well as specialized topics

for which it is particularly important to ensure consistency across research areas and markets. Examples of Special and Cross-Cutting topics include codes and standards, education and training, market effects, marketing, customer profile studies, and net-to-gross studies.

More details regarding these research areas and specific research topics can be found in Appendix S: Strategic Evaluation Plan.

4.4 Types of Evaluation Functions

EM&V includes the following types of studies:

- **Impact evaluation** refers to the measurement of gross energy and demand (electric and natural gas) savings, as well as GHG emissions reductions, achieved within program populations. Impact evaluations may also include the study of key impact factors to estimate savings and benefits, such as in-service rates and other resource savings, including water and non-utility fuels (propane and oil).
- **NTG studies** refer to specific research that quantifies program influence by estimating free-ridership and the various components of spillover (i.e., participant and/or nonparticipant).
- **Baseline studies** refer to specific research to determine baselines, such as industry-standard practice baselines. Baseline research is sometimes conducted concurrently with impact evaluation research.
- **Measure life studies** research equipment life and the effects of measure persistence. Equipment life is the number of years that a measure is installed and will operate until failure. Measure persistence considers business turnover, early retirement of installed equipment, and other reasons measures might be removed or discontinued.
- **NEI studies** refer to research that estimates NEIs of demand-side management measures, including participant and utility benefits. These impacts include changes such as O&M, comfort, productivity, and avoided arrearages.
- **Cost studies** include research to determine the total and incremental costs of demand-side management measures.
- **Market effects evaluations** refer to the measurement of the long-term effects programs or measures have on the structure and functioning of their target markets (e.g., changing product availability and pricing). Historically, the Mass Save programs have been resource acquisition programs, which typically have short-term savings goals (e.g., within three years), although market effects can be an important side effect. As the PAs shift from traditional energy efficiency to decarbonization, EM&V will

seek to support market transformation initiatives where appropriate by tracking, measuring, and evaluating interim and long-term indicators of market penetration and structural changes, program attribution, and cumulative energy impacts over a longer-range timeframe.

- **Market characterization** refers to the systematic assessment of product and service markets for the purpose of improving the design and effectiveness of programs targeting those markets.
- **Process evaluation** refers to the systematic assessment of programs for the purpose of documenting their operations and developing recommendations to improve their effectiveness and design. It may also include marketing studies to understand the effectiveness of various marketing approaches.

4.5 Evaluation Planning and the Strategic Evaluation Plan

The EMC seeks to establish a more strategically targeted view of EM&V for the 2025-2027 term to quickly respond to program changes including the expansion of program offerings, streamlining the customer experience, and a greater focus on equity. The EMC will focus its efforts on working more closely with the PAs' implementation teams to solve programmatic problems as they arise and better support continuous program improvement. The EMC worked with implementation staff, EEAC consultants, and evaluation vendors, and focused on lessons learned from past studies to develop priorities for future research. The Strategic Evaluation Plan (Appendix S) summarizes the currently known planned topics of evaluation research in the 2025-2027 term.

4.5.1 Evaluation Budgets

In the 2025-2027 term, the PAs intend to dedicate approximately \$47 million to EM&V studies. This budget includes funding for independent third-party evaluators to conduct research managed by the EMC and reflects an intention to focus EM&V research on plan priorities, while de-prioritizing measures and initiatives that are no longer a key focus of the Plan, have been evaluated recently, and are not expected to meaningfully change, or are not expected to make a material difference to overall program savings. For more details on the Evaluation budget, see Appendix S: Strategic Evaluation Plan.

The EM&V study budget is included in the Evaluation and Market Research Hard-to-Measure line item, along with other evaluation and market research costs, such as potential studies, the AESC Study, maintenance of the TRM, internal PA staff labor and expenses related to EM&V, non-study consultant costs, and market research undertaken by the PAs.

4.5.2 Evaluation and Implementation Feedback Loop

One of the purposes of EM&V is to provide information that supports continuous improvement of energy efficiency and decarbonization programs. Evaluation can contribute to program improvements at all stages of the program lifecycle, from initial program design and formulation to small scale testing, full scale implementation, and refinements of mature programs. The EMC has always strived to engage program implementers at the earliest stages of program development or redesign and will make this a priority in the 2025-2027 term by focusing on embedded evaluations.

This type of evaluation coordinates with implementation as a program or intervention is being designed rather than looking back on what has already been done, as is the case for retrospective evaluation. Embedded evaluation ensures a new program's design is tied to measurable outcomes and outputs and that proper data collection methods are employed. It also facilitates shared learning between implementers and evaluators so the theory of change and associated activities can be amended in close to real time, thus accelerating adaptation and improvement. Rapid feedback, which enables implementers to make quick changes to program strategy or administration if challenges are encountered with the initial design, is critical during periods of change or uncertainty. While embedded evaluation will be a focus, EM&V will continue to provide essential information for program design by providing data on baseline efficiencies, market conditions, verified savings, and program participation levels.

The PAs have developed a formal feedback loop to ensure the results of evaluations are communicated to program implementers, who can then use those results to enhance and refine the programs. The feedback loop has many steps, from the initial consideration of a study to completion. Before a study is commenced, multiple teams, including evaluation, implementation, contractors, stakeholders, and consultants, convene to identify research questions across the statewide portfolio. The EMC then works with contractors and consultants to create a plan based on these identified research questions. As evaluation studies are scoped and planned out, the work plan may be shared with implementation to ensure that the EMC is asking the most appropriate research questions, and that timely results and recommendations will be available to support improvements to implementation. Evaluators also provide advanced notice of evaluation activity, such as customer on-sites and staff interviews. The implementation team is often interviewed as part of an evaluation study, particularly for process and market studies. Implementation and engineering staff may also be consulted about detailed project information and customer contacts for projects selected for evaluation.

Once a draft report is available, the draft findings and recommendations are shared with implementation, consultants, evaluation, and other stakeholders to give interested parties the opportunity to review and

provide feedback. When a study is complete, final findings and recommendations are shared with the Residential Management Committee (“RMC”) and Commercial and Industrial Management Committee (“CIMC”) and their respective working groups where relevant, to consider recommendations and determine whether it is appropriate and feasible to adopt and implement. If the PAs determine whether it is not feasible or appropriate to adopt a recommendation, the committees clearly document their decision and reasoning. A spreadsheet containing specific EM&V recommendations and PA responses is provided to the Department as part of the Term Report filing. Final impact results are also reviewed and incorporated into the TRM by PA evaluation staff and into the BCR model by the Common Assumptions Working Group.

Information on EM&V continuously flows in both directions between implementation and evaluation, allowing the implementation teams to seek guidance from EM&V, and the EMC to ensure it is researching topics of importance to the programs. An EMC liaison participates in RMC and CIMC meetings to inform the management committees of studies about to commence, seek input from implementation when it is needed, and to explain results and recommendations. Also, the three management committees meet quarterly in Tri-Management Committee meetings to discuss various topics, including evaluations. Finally, PA evaluation staff practice consistent communication with implementation staff to stay current on program offerings and suggest relevant data and findings from program evaluations that can inform strategy and design.

4.5.3 Evaluation Studies

From the beginning of the 2022-2024 term to November 1, 2024, the PAs completed over 100 studies. These studies include a wide range of evaluation topics in the Residential, Low-Income, and C&I sectors, as well as Special and Cross-Cutting sector evaluation areas. For studies completed since the 2023 PY report filing a summary is included in Appendix T: Evaluation Study Summaries and the full set of studies are provided in Appendix U: Evaluation Studies. All currently completed studies are also available on the EEAC’s [website](#).

4.5.4 Strategic Evaluation Plan

In line with the DPU’s requirement to include a Strategic Evaluation Plan with every three-year plan, this term’s Strategic Evaluation Plan describes evaluation research priorities for the 2025-2027 term by research area, as well as lessons learned that helped inform priorities for the new term. The Strategic Evaluation Plan also includes information regarding the purpose of evaluation, evaluation approaches, the EM&V framework, the study process, and the 2025-2027 EM&V budget.

The EEAC’s resolution regarding the 2025-2027 Plan’s EM&V Principles and Policy (see Appendix P) outlines three principles and policy guidelines that should guide evaluation activities in the 2025-2027 term. The

Strategic Evaluation Plan describes how the EMC will respond to the EM&V principles and priorities for climate-forward evaluation described in the resolution.

Clarification on Desired Measurement Goals of Evaluation

- How attribution will be treated based on program type (i.e., market transformation, low income, resource acquisition) as well as availability of complementary initiatives (e.g., tax, credits, codes, technical or financial support from other entities).
- Determinations of baseline and lifetime savings regarding program-driven versus market-driven renovations and infrastructure investments.
- Conditions where stipulated baselines can be used to overcome program barriers by ensuring robust incentives for underserved segments of the population.

Market Transformation Programs and Their Evaluation

Targeted market transformation initiatives are explicitly designed to induce market effects by reducing market barriers. Market effects are usually subtle and challenging to detect in the early phases of a market transformation initiative. The Strategic Evaluation Plan describes the steps the EMC will take to evaluate the PAs' market transformation initiatives to detect these market effects.

EM&V Focus Beyond Measurement and Verification of Savings

- **Equity.** The Strategic Evaluation Plan describes changes to the evaluation study process to ensure that the EMC is applying an equity lens to all evaluation activities.
- **Process improvement.** The Strategic Evaluation Plan introduces Embedded Evaluations as a new approach that can be used for process studies and continuous improvement of existing offerings.
- **NEIs.** The Strategic Evaluation Plan includes descriptions of studies focused on taking stock of NEIs developed over the years to identify possible gaps or values that require updating.

Section 5: Statewide Data and Data Transparency

5.1 Overview

A primary focus for the 2025-2027 term will be efforts to make data more accessible and create a more streamlined user experience. The PAs have organized this section to discuss the reporting that is currently in place, available data sources and dashboards, the PAs' vision for an improved data experience, spending, proposed changes and clarifications to data privacy standards, and new town-level reporting. The PAs provide transparent reporting on their energy efficiency activities in numerous presentations, reports, and electronic data platforms for multiple audiences, including but not limited to, the EEAC and its consultants, the public, academic institutions, municipalities, state agencies, media, the Massachusetts Legislature, and industry organizations such as the ACEEE and eSource. Providing regular communications allows the public and other stakeholders to receive up-to-date information regarding energy efficiency investments and savings, as well as progress toward the PAs' climate goals for the building sector. The PAs provide three main categories of data:

- Planned data focusing on approved three-year plan data points.
- Customer participation and demographic information, including data stored on the Mass Save Data website and Veracity Customer Profile Dashboard.
- Progress in implementing the Plan as reported via statewide and PA-specific annual reports and data tables, quarterly reports and data tables, KPIs, and monthly data dashboards.

Customer-specific Data and Privacy Considerations

To increase transparency, while remaining protective of customer privacy, the PAs are proposing changes to the Department's data aggregation standards. Please refer to section 5.7: Data Aggregation Standards for additional details on these proposed changes. The PAs aggregate all reported customer data, including the data sources below, according to Department standards. The PAs have a legal obligation to protect the confidentiality of customer-specific data absent customer authorization.¹⁵³ In particular, the *Act Establishing the Massachusetts Residential Conservation Service* (the "RCS Statute") explicitly limits disclosure of "the name

¹⁵³ See, e.g., D.P.U. 12-76-B at 36 ("Customer-specific data cannot be shared without customer authorization."); G.L. c. 164, § 1F(7) (requiring confidentiality of customer records held by a distribution company).

of a customer or the contents of an energy audit report prepared for such customer” without customer authorization, with few exceptions.¹⁵⁴ The PAs are thus generally limited to sharing aggregated customer information pursuant to standards articulated by the Department in D.P.U. 14-141. These standards require that customer data be aggregated and reported at the ZIP code level:

- Aggregated C&I data can only be displayed where it represents at least 15 customers, with no single customer accounting for more than 15 percent of electric or natural gas usage.
- Aggregated Residential and Low-Income sector data can only be displayed where it represents at least 100 customers.

5.2 Report Types

The PAs provide formal reporting as required by the GCA and the Department, including the three-year plan, plan-year reports, term reports, annual EES filings, and quarterly reports to the EEAC. Additionally, the PAs provide monthly data dashboards and present regularly to the EEAC, maintain a detailed energy efficiency database (called [Mass Save Data](#)), and make detailed residential and C&I customer profile data available on a [web-based platform](#) with dashboard functionality.

Three-Year Plan

Three-year plans include multiple parts that, taken together as an integrated whole, describe the Program Administrators’ strategy for acquiring GHG emissions reductions, cost-effective energy efficiency, and demand reduction resources through a sustained effort while also considering short-term customer bill impacts.

Plan-Year Report

The PAs file annual plan-year reports with the Department to allow the Department to review the effectiveness of the programs. In each plan-year report, the PAs include fully evaluated implementation results for each program year, which they later incorporate as part of each PA’s term report. The plan-year reports include updated data tables comparing planned, preliminary, and evaluated results. Each PA provides detailed explanations of variances in budget, lifetime savings, total benefits, and total costs. These reports also include information on cost effectiveness. In the event of a non-cost-effective program or initiative, a PA must provide a detailed explanation of the reasons why the program is not cost effective, and how the PA expects to

¹⁵⁴ G.L. c. 164 app. Section 2-3(c).

proceed with the program (e.g., modify program implementation, modify program budget, terminate the program) and why this course of action is appropriate. The Program Administrators file the plan-year report following the first two program years of each three-year plan.

Term Report

At the conclusion of a three-year plan term, the PAs file a term report with the Department documenting performance over the entirety of the term. The term report contains similar data and variance explanations to the plan-year report but for all three years of the term, along with other information to demonstrate compliance with the approved plan and statutory requirements. The Department reviews each PA's term report in a publicly noticed adjudicatory proceeding. At the conclusion of the proceeding, the Department provides final approval of program expenditures, performance incentives, and lost base revenue, if any.

Quarterly Report

Per Massachusetts statute, the PAs must provide quarterly reports to the Council that show their progress toward implementing the three-year plan.¹⁵⁵ The PAs provide these reports following the end of each quarter and include key metrics showing progress towards annual and three-year term goals, including expenditures, participants, savings, GHG reductions, and benefits, as well as a narrative component detailing energy efficiency activity in each sector and associated with EEAC priorities. There are also sections that detail the latest marketing activities, evaluation highlights, regulatory updates, and relevant case studies. The PAs report this data on a cumulative basis throughout the year (e.g., the Q3 report includes the most up-to-date values from the start of the program year through the end of Q3), as well as cumulatively over the three-year term. Finally, the quarterly reports also include individual PA and aggregated statewide data tables and KPIs.

Starting with 2025 data, the PAs are also required to report annually, as part of a quarterly report, for each municipality served: (1) total number of customers, (2) total EES dollars paid by customers as part of their utility bills, and (3) total incentives provided by the program, categorized by PA and sector, including Residential, Low-Income, and C&I.¹⁵⁶ The PAs plan to include this information for 2025 data in a quarterly report as required by the 2022 Climate Act.

¹⁵⁵ G.L. c. 25, § 22(d).

¹⁵⁶ G.L. c. 25, § 22(d).

Annual Energy Efficiency Surcharge Filings

Pursuant to G.L. c.25, § 19(a)-(b), the annual EES filings calculate additional funds needed for approved energy efficiency programs when the cost of implementing those programs exceeds other funding sources. The EES calculates: (1) collected costs associated with the implementation of an energy efficiency program in excess of other funding sources, and (2) reconciliation of over- and under-recovery of costs by customer sector from the previous year's program implementation.

5.3 Data Sources and Dashboards Available

For the 2025-2027 term, a key data management objective will be to make data more accessible and to create a more streamlined user experience. The Program Administrators realize there are a lot of data sources available, and that it can be challenging to navigate them and know where to find information. To this end, the PAs plan to provide clarification by creating a data user map, a frequently asked questions section for common requests, user guides (such as YouTube videos), and updated versions of Mass Save Data and the Customer Profile dashboards for an improved user experience.

The PAs will also establish a working group with DOER and other key stakeholders to streamline and improve the accessibility of reported data on an ongoing basis. This will include efforts to ensure that the revised version of Mass Save Data is accessible and incorporates key operational metrics agreed to as part of the 2025-2027 Plan. This working group will also explore how to achieve the key policy objectives underlying the recommendation to develop a statewide database of energy efficiency and decarbonization. Additionally, the group will evaluate whether the PAs can adapt the existing tools to serve these purposes or if they will need to develop something new.

5.3.1 Data Framework

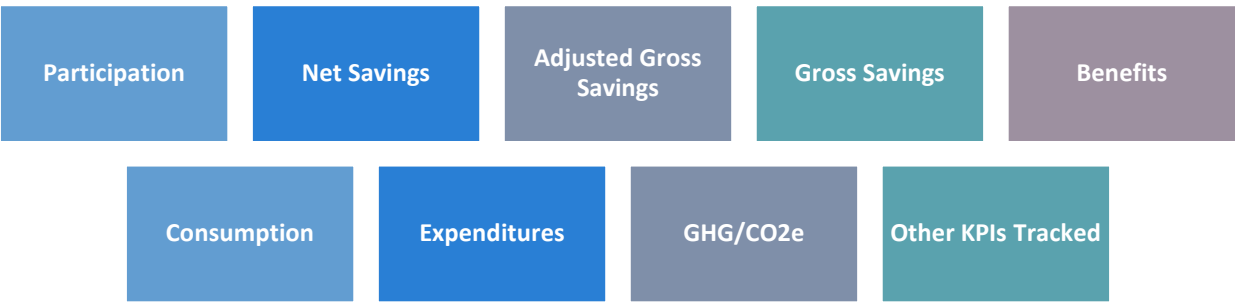
The Program Administrators intend for the Data Framework to include the cataloging of data from primary data sources, as well as to show the granularity of data and the frequency of updates. Mass Save Data will, at a minimum, include links to all available data sources even if the data is not all stored there. There are four main components to this Data Framework:

1. **What the PAs track.** This refers to the type of data that is tracked in the PAs' energy efficiency programs such as participation, savings, benefits, and spending.
2. **How data is displayed.** This refers to the different lenses by which the data can be viewed such as by sector, by fuel, and by PA.

- 3. **When it is shown.** This refers to how the data is presented, for example as a time series or at a point of time.
- 4. **How often it is updated.** This refers to how often the data is updated and reported on, for example, monthly, quarterly, or on an annual basis.

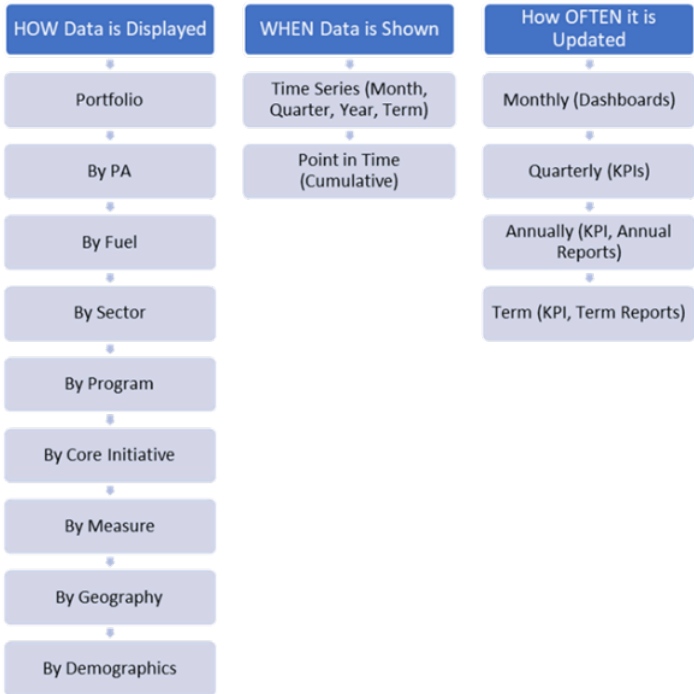
The following two figures detail the four main components of the framework. The first figure shows the types of data available for the Mass Save programs.

Figure 43: What the PAs Track, Data Type



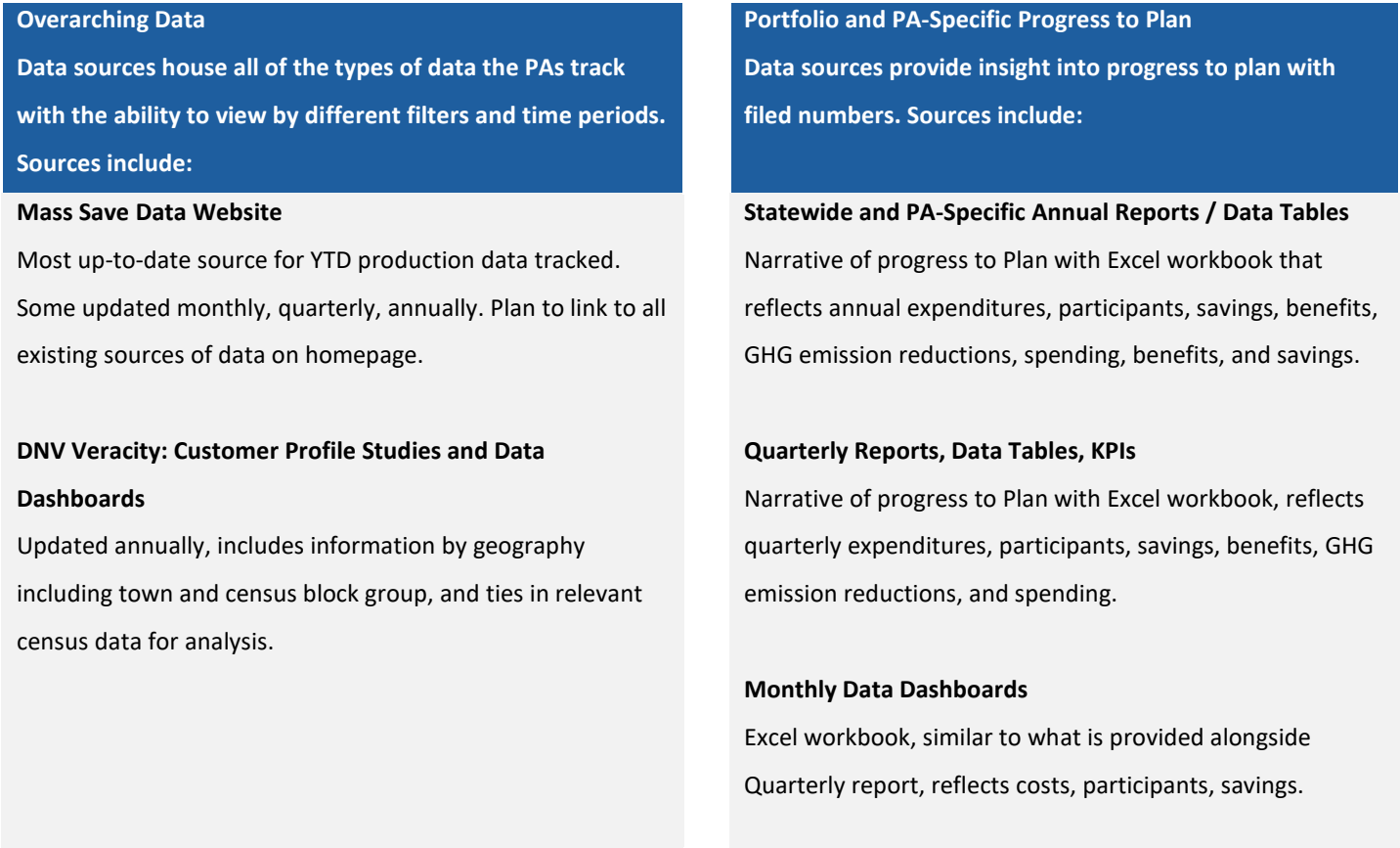
The figure below shows that depending on the type of data shown, these are the many ways that data is displayed. Not all combinations are possible for everything tracked.

Figure 44: Data Framework



The data sources included in this Framework are briefly summarized below and in the following section.

Figure 45: Data Sources Framework



While the PAs have made an extensive quantity of data available, stakeholders have shown particular interest in town/municipal and ZIP code level data. The figure below is an easy reference guide to what data is available at two levels: (1) from which data source (sources described below), and (2) at what frequency.

Figure 46: Data Availability by Geography Type

Reporting Source and How Often It is Reported	Municipal Level			ZIP Code Level		Census Block Group
	Mass Save Data Annual ¹	PA Reports to EEAC Bi-Annual ²	DNV Veracity Customer Data Dashboards Annual ³	Mass Save Data Annual	PA Reports to EEAC Bi-Annual	DNV Veracity Customer Data Dashboards Annual
Residential and Low-Income sectors	Annual usage, savings, and incentives Usage by month	N/A	Number of participants Savings, including upstream and non-upstream savings	Annual usage, savings, and incentives	Number of participants, including low income and moderate income ⁴	Number of participants Savings, including upstream and non-upstream savings
C&I sector	Annual usage, savings, and incentives Usage by month	N/A	Number of participants Savings, including upstream and non-upstream savings	Annual usage, savings, and incentives (Boston only) ⁵	N/A	Number of participants

[1] Annual geographic data for [Mass Save Data](#), the PAs' efficiency database, is updated 8-14 months after calendar year end.

[2] Biannual geographic data is provided as part of the Q2 and Q4 [EEAC Quarterly reports](#) submitted by the PAs. For the most recent Bi-Annual Reporting, see file titled: 2nd Quarter 2023 Program Administrators' KPIs; see tab Bi-Annual No. 6.

[3] Annual geographic data on the [DNV Veracity Platform](#) is updated 8-14 months after calendar year end. This database is accessible via a link with no sign-up required.

[4] This spreadsheet (see footnote 2) includes the number of participants (excluding upstream and behavior) by zip code broken out by: (a) total income-eligible participants, (b) total non-income-eligible participants, (c) single-family/attached low-rise participants (not moderate income), and (d) single-family/attached low-rise participants (moderate income).

[5] For the C&I sector, ZIP code data is shown for neighborhoods of the city of Boston but is not available in other municipalities due to customer privacy protections.

5.3.2 Current Data Sources and Future Plans for Enhancements

The PAs make several data tables and dashboards available to the public and stakeholders that detail implementation progress for the Mass Save programs. These include a monthly data dashboard, statewide data tables for quarterly and annual reports, the [Mass Save Data](#) database, Community First Partnership / Municipal data sharing, customer profile studies and data dashboards available on a [web-based platform](#), and quarterly and bi-annual KPIs.

Monthly Data Dashboard

The Monthly Data Dashboard is an Excel workbook, like what the PAs provide alongside the Quarterly Report, and reflects costs, participants, and savings. The PAs publish the dashboard following the end of any month that is not the end of a quarter (i.e., January, February, April, May, July, August, October, and November). Each individual PA provides their data by fuel and sector on a cumulative basis throughout the year from the start of the program year through the end of the most recent available month.

The dashboard presents data in statewide summary tables broken down by fuel, sector, and PA to show progress toward annual and three-year term goals. The PAs deliver data on a two-month lag (e.g., the October Monthly Data Dashboard includes the most up-to-date values through August of the program year and over the three-year term). On the months at the end of the quarter (March, June, September, and December), the PAs provide similar data at a more granular level in statewide data tables sent alongside the Quarterly Report. All data is also available on Mass Save Data. While these dashboards have historically presented costs, participants, and savings, the PAs are considering updating these dashboards for the 2025-2027 term to include information more frequently requested by stakeholders, such as progress toward heat pump and weatherization deployment goals.

Statewide Data Tables for Annual and Quarterly Reports

The PAs provide Statewide Data Tables as an Excel workbook alongside the Quarterly and Annual Reports. Each individual PA provides their data by Fuel and Sector at the core initiative level reflecting expenditures, participants, savings, benefits, and GHG emissions reductions. Statewide summary tables also detail Spending, Benefits, and Savings progress to goal. The Program Administrators report this data on a cumulative basis throughout the year (e.g., the Q3 report includes the most up-to-date values from the start of the program year through the end of Q3), as well as cumulatively over the three-year term. All data is also available on Mass Save Data.

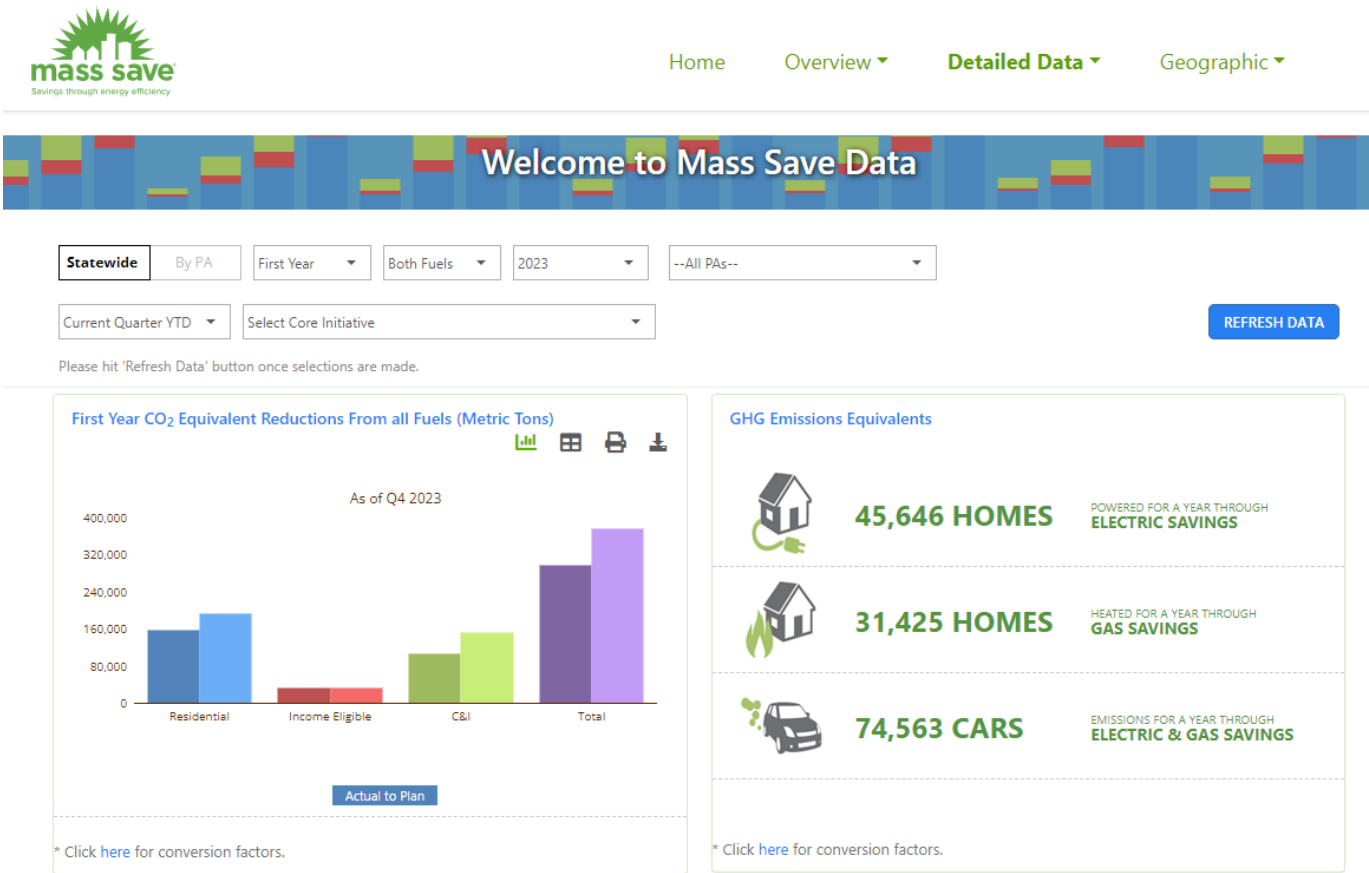
Mass Save Data

Current State

The PAs develop and maintain a publicly accessible statewide energy efficiency database, [Mass Save Data](#). This online statewide database improves public and stakeholder access to the extensive data already reported by the PAs, as well as additional information and presentations of data. The database provides a single, reliable, and timely data source for currently reported data on an individual PA and statewide basis and is accessible at any time. Mass Save Data enables users to export data to Excel or PDF formats for further analysis and queries.

The PAs designed Mass Save Data to export data easily for those stakeholders like the EEAC and DOER who prepare data-driven reports on energy efficiency and, at the same time, to display data in a user-friendly, understandable manner for those users who prefer charts and graphs. The Program Administrators have implemented Mass Save Data in a manner that is cost efficient and protects customer privacy. The platform provides accessible, meaningful information to customers, municipalities, and stakeholders over time.

Figure 47: Mass Save Data



Mass Save Data provides quantitative data similar to that provided in the PAs’ public reports, including information related to participants, expenditures, annual and lifetime savings, electric capacity savings, and benefits. The database includes data at the sector, program, initiative, and measure levels. In addition to the PAs’ specific data, Mass Save Data also provides savings, usage, and incentives data on the geographic tab at the county, town, and ZIP code level. This data allows municipalities to see the effects of energy efficiency in their town and other areas. Following a request from several municipalities, the PAs are now providing usage data by town by individual month on an annual basis. The PAs have updated Mass Save Data and provided new information and views based on input from members of the EEAC and other stakeholders. Mass Save Data tabs

include overview sections such as time series, performance overview, monthly reporting, and sales and savings, detailed data such as performance details, cost to deliver, HEAT Loan, GHG emissions reductions, measure details, and geographic information including savings, usage and incentives by county, town, and ZIP code. There are also reference materials such as a glossary and the link to the TRM. The PAs update Mass Save Data with various data sets on a monthly, quarterly, and annual basis.

A municipal mapping tool is also available that leverages the Google Earth platform and combines data on historical participation in energy efficiency programs with statistics and hard-to-reach populations such as renters, income level, LOTE customers, and small business counts. Individuals can use this tool to geographically target the PAs' energy efficiency offerings by using these maps to view at a street or neighborhood level.

Figure 48: Municipal Mapping Tool



Future Planned Enhancements

In 2024, the PAs will refresh and modernize Mass Save Data (“MSD 2.0”) to make it even easier for stakeholders to access the data they need. This refresh will focus on:

- **Centering key metrics on the homepage.** The PAs are looking to showcase front and center key metrics that are of interest to external stakeholders such as number of weatherization jobs and number of homes with heat pumps installed by customer types such as residential, low income, moderate income, and small business by ZIP code or town.
- **Looking to modernize technology.** The PAs are looking to update Mass Save Data such that updated technology will support full customization and versatility to improve data visualization and mapping capabilities to accommodate future program changes and/or reporting needs.
- **Improving the user experience.** Given the large amount of data collected and complexity of the programs, the PAs are looking to update Mass Save Data to make it more visually pleasing and to organize where users would naturally look for it.
- **Aligning with KPI reporting requirements.** The PAs intend to use pages of the dashboard on Mass Save Data to showcase required KPIs for an easier, more streamlined reporting solution.
- **Improving visibility to other statewide reporting requirements.** Where possible, the PAs would like to use the Mass Save Data landing page as a detailed roadmap for the various types of data collected to make it easier to find that data even if it is housed outside of the MassSaveData.com website, using the Data Map referenced earlier in the section as a guide. A few examples:
 - If someone visiting the website is interested in seeing the latest quarterly report, an easy link to where the quarterly reports will be visible.
 - If someone visiting the website is interested in seeing socioeconomic data from the US Census that is currently housed in the Veracity tool (more described below), an easy link to that tool will be provided.

Community First Partnership

Current State

Providing data to community partners is critical to empowering them to effectively reach and engage customers in their communities. The PAs are currently able to provide a significant amount of data aggregated at the community level (and according to the Department's standards), while remaining protective of customer privacy. For a detailed discussion of data aggregation standards, please refer to section 5.7: Data Aggregation Standards below. The PAs currently make data available to Community Partners via a Lead Vendor. This data includes information on the number of Home Energy Assessments, weatherization jobs, and heat pumps installed (by the fuel replaced) within each community.

Future Planned Enhancements

The PAs have been working with the Lead Vendor to survey CFPs to better understand their additional data needs. At a high level, there are three areas for which communities have expressed an interest in expanded data, including the following:

- **Outreach.** Reaching and signing up people who could benefit from energy efficiency.
- **Customer engagement.** Following up with customers to encourage participation and ensuring they have the right contacts and information.
- **Outcomes.** Understanding impact and using it to inform future outreach.

For the 2025-2027 term, the PAs are committed to working with CFPs to improve data sharing necessary to support execution of their responsibilities under the programs in a manner that is protective of customer privacy. In the short-term, the PAs will establish an opt-in authorization process whereby the customer would authorize the PAs and their vendors to share their customer-specific data with CFPs, subject to a non-disclosure agreement. Such an approach would mean that CFPs would be able to access customer-specific data on their current Home Energy Assessments and recommended improvements, weatherization jobs, and heat pumps installed for those customers that provide authorization.

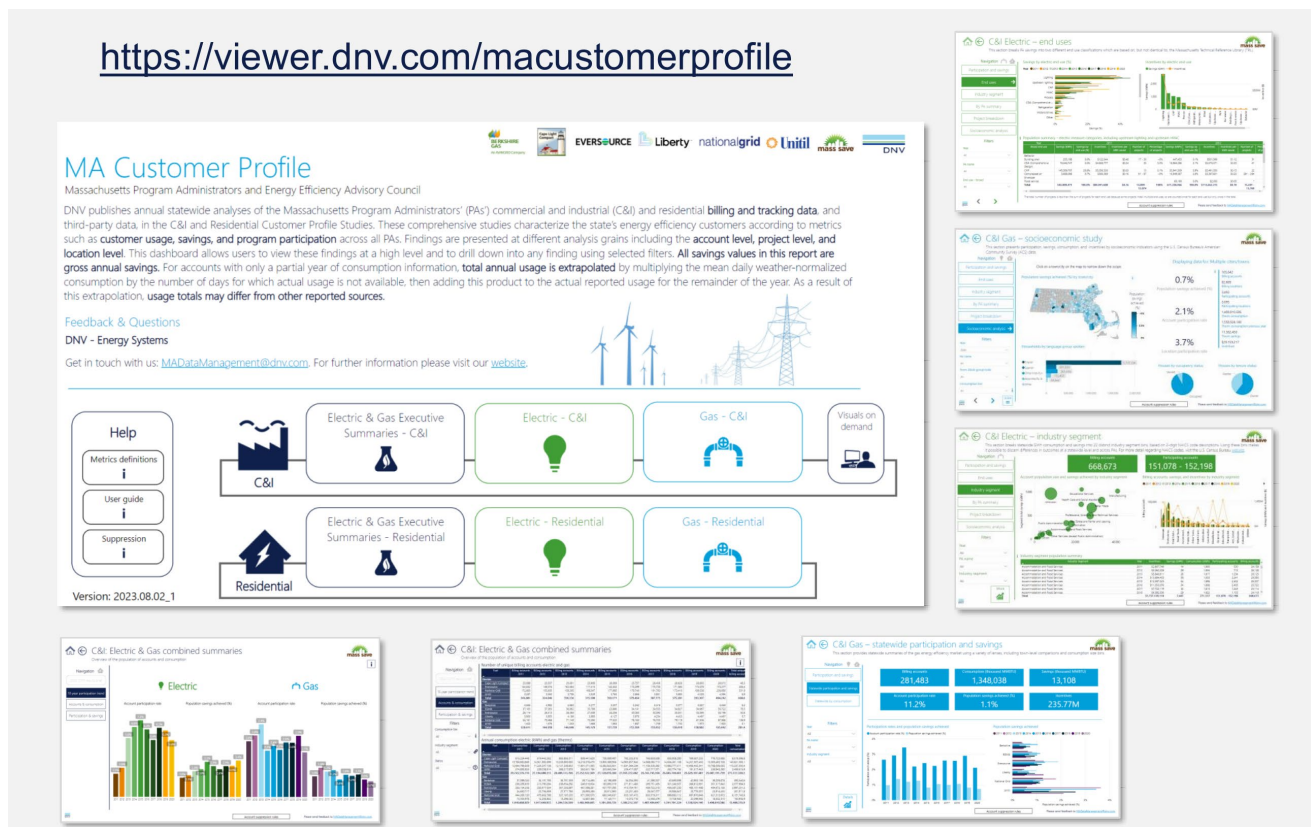
Over the longer term, the Program Administrators will also offer CFPs an alternative option to enter into a more robust agreement with PAs to facilitate increased data sharing for the customer data listed above, which will include a detailed scope of work, non-disclosure agreement, and data use provisions, similar to the approach used for other vendors operating under the programs. The PAs will continue to aggregate customer data to Department standards for cases where there is no customer authorization or instances of data sharing that are not subject to an agreement between PAs and the CFPs. Pending resolution to the recommendations highlighted in section 5.7: Data Aggregation Standards below, the Program Administrators anticipate using Mass Save Data to include additional town-level data. Finally, there may be some cases where the PAs cannot share data because it is subject to additional protections. To address these situations, the PAs will work with CFPs on an ongoing basis to review their additional requests and determine alternative approaches to address CFP needs without violating customer privacy protections.

Customer Profile Studies and Data Dashboards

Current State

Accessible through Mass Save Data, the [Residential and C&I Customer Profile Dashboard](https://viewer.dnv.com/macustomerprofile) is a web-based platform with dashboard functionality. The Program Administrators developed the platform using aggregated customer usage and energy savings data. The platform presents data visualizations and extracts data previously available via paper-based Customer Profile reports in a transparent and easy-to-use web-based format while maintaining existing customer confidentiality rules. The annual profile studies offer diverse views of participation, savings, and geographic dynamics across the PAs' energy efficiency programs.

Figure 49: Customer Profile Dashboard



Future Planned Enhancements

The PAs developed the current Customer Profile Studies and Data Dashboards to take reports 100+ pages long and make them easier to understand and click into. Over the years, the PAs have expanded their efforts and created a large repository of data that is available for the public to view without the need for logging in. In the PAs' quest to make the data available for the programs more digestible and user friendly, the Program

Administrators have coordinated with their vendor DNV to determine how best to update the dashboard to ensure it easily serves the needs of its users. During the 2025-2027 term, the PAs intend to refresh the general layout of the Customer Profile Data Dashboards, to ensure:

- More insightful and clear-to-read visuals, providing important information for users.
- More intuitive navigation will allow everyone to browse through the dashboard easier and find information more efficiently.
- Improved filtering system, allowing users to define the scope of analysis more precisely and dig deeper into the data.
- Modified suppression system, improving data clarity and causing less trouble with export.
- Other important modifications will ensure a better experience for the users.

Here are a few illustrative screenshots to show how the PAs anticipate meeting the above objectives for the tool.

Figure 50: Dynamic Layout, Improved Navigation

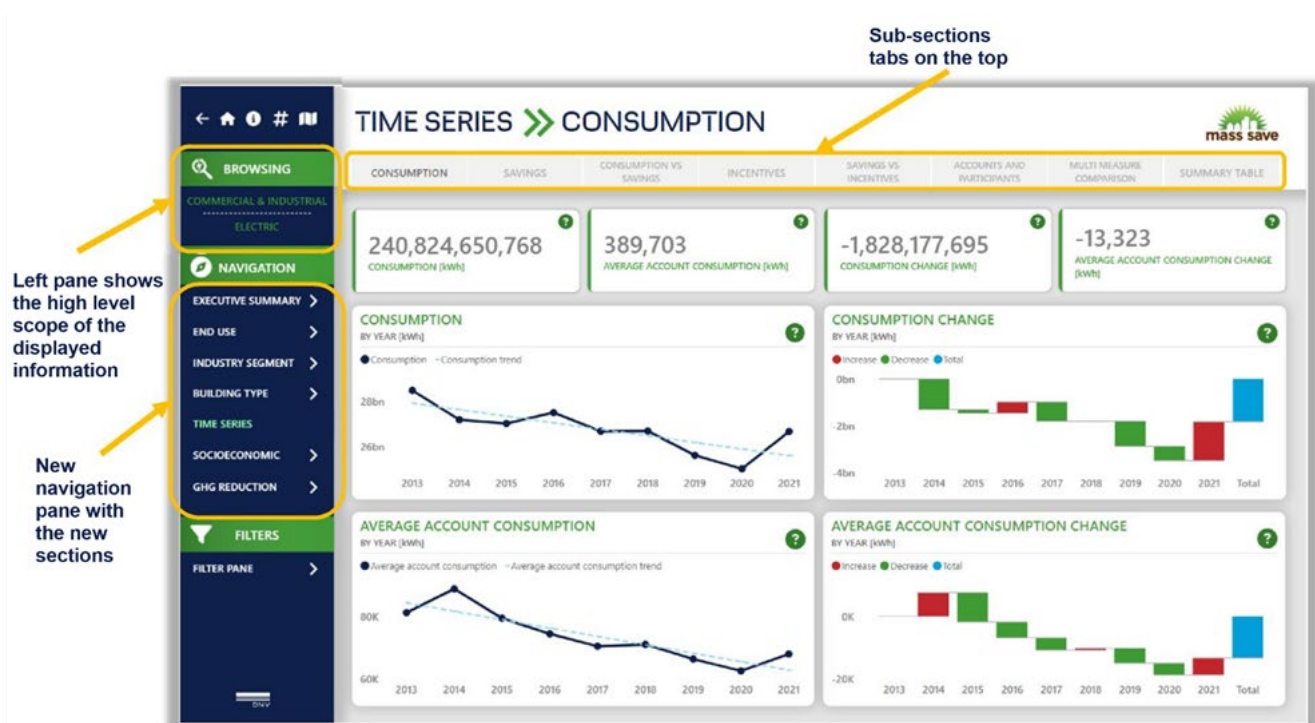
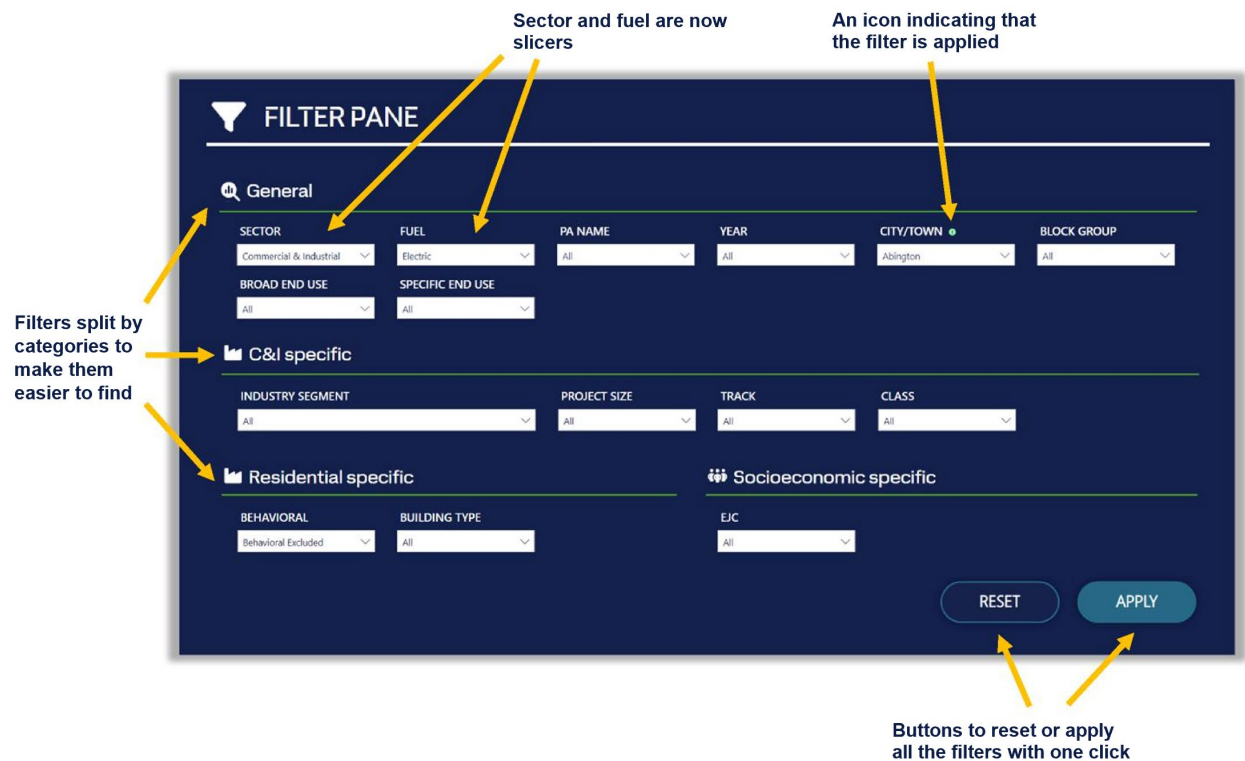


Figure 51: Improved Filtering



5.4 Operational Metrics and Key Performance Indicators

The PAs are working in collaboration with DOER to provide the Council, the public, and interested stakeholders with valuable and easy-to-understand information on the programs that help measure progress toward Plan goals. While the PAs currently publish a significant volume and variety of data at regular intervals (see sections 5.2 and 5.3 above), existing reporting can be difficult to interpret. Reformatting and refining the structure and interface for that information will better serve the Council, the public, and interested stakeholders, streamline data administration processes, and thus minimize the administrative costs of responding to ad hoc data requests as required by G.L. c. 25, §§ 19(a),(b).

During the 2025-2027 term, the PAs will publish the measure-level outputs of each PA’s benefit-cost models on a quarterly basis and provide ZIP Code level production and incentives for major measures, including weatherization and heat pump installations, on a biannual basis. These granular datasets will enable stakeholders the flexibility to conduct a variety of analyses.

Further, the PAs will provide summary tables, primarily derived from the above-mentioned data, for frequently requested operational metrics. Progress on each of the metrics will be reported again the Plan targets or a

baseline, as appropriate. In addition, the PAs will report extensive supplier diversity information as described in section 3.4.4: Workforce Development above. The operational metrics for the 2025-2027 Plan include:

- GHG reductions impacting 2030 compared with the EEA Secretary's goals.
- Weatherization and heat pump installations and incentives by income-qualification status, single-family/multifamily buildings, renter status, and specifically for heat pumps, the displaced fuel and full/partial displacements, both statewide and within the designated equity communities.
- The number of homes receiving weatherization recommendations with barriers, and the number of barrier mitigation jobs and incentives by income-qualification and renter status, both statewide and in the designated equity communities.
- Average conversion rate on weatherization recommendations and time-to-serve for Home Energy Assessments.
- Total equity investment, including incentives for low- and moderate-income customers, renters, and small business turnkey customers, as well as community funding, language access funding, workforce development funding, and program support costs for low-income and small business turnkey customers.
- CFP communities and awards by partner organization.
- Total number and spending on contracts directly between the PAs and vendors, as well as the number and percentage of diverse suppliers who were directly informed of RFPs and who responded to RFPs.
- Total number of customers indicating preference for being served in a language other than English at intake and, of those, how many receive Home Energy Assessments and weatherization by their language of preference.
- Number of thermostats participating through market-rate and low-income offerings.
- ConnectedSolutions participants and savings by measure.
- C&I Custom electrification and non-electrification projects, energy savings, and GHG savings.
- C&I existing building commissioning and decarbonization planning study enrollments, completions, and resulting projects, grouped by small, medium, and large buildings by square footage.

The PAs have provided a workbook with each of these metrics, their reporting cadence, and Plan data in Appendix I. Also, the Program Administrators have worked with DOER to simplify quarterly reporting to make

the narrative updates more valuable and user friendly. Finally, as noted above, the PAs will establish a working group with DOER and other key stakeholders to streamline and improve the accessibility of reported data on an ongoing basis.

5.5 Council Data Request Process

The PAs' reporting and data sharing outlined in the above sections are meant to provide the EEAC Councilors and interested stakeholders with valuable information on the programs and the PAs' progress toward attaining the goals for the 2025-2027 Plan. It is also meant to reduce the administrative costs of developing responses to ad hoc requests for data. To that end, the PAs intend to resolve the majority of data requests from the Councilors and stakeholders through the regular reporting outlined above.

However, the Council may make requests for data that the PAs' reporting do not answer. In these situations, the PAs, DOER, and the Council agreed to a Data Request Process, which the PAs submitted to the Department for its review during the 2022-2024 term. The Department approved that process with modifications.¹⁵⁷ The PAs and DOER appreciate the Department's careful review and, after considering its Order, provide the description of the Council Data Request Process below.¹⁵⁸

The Council and/or its individual members should submit data requests in writing to the Council Chair (DOER), or its designee.¹⁵⁹ These requests shall include an explanation of the purpose of the request along with any supporting information. Through this process, the PAs will better understand that purpose and why they cannot address the requestor's inquiry using existing information. The Council Chair will coordinate with the Council's Consultants and the PAs to determine whether they can adequately address the request using existing information. If not, the Council Chair, Council's Consultants, and PAs will review the data request to ensure that the administrative cost to produce the data is justified by its informational value of helping the Council to implement its statutory duties under G.L. c. 25, § 22(b).

To ensure transparency, the PAs and Council Chair will make this decision by the next monthly Executive Committee meeting following the request. If the PAs and the Council Chair disagree on whether the value of

¹⁵⁷ There is a pending Motion for Reconsideration of the Department's Order.

¹⁵⁸ The PAs are authorized to state that this description has been agreed to by the DOER. Additionally, the process directed herein does not preclude the AGO from issuing data requests to the distribution companies pursuant to its statutory authority under G.L. c. 12, § 11E(c).

¹⁵⁹ The process outlined does not apply to addressing clarifications, corrections or data quality issues identified as part of the Council's review of monthly data dashboards, quarterly reports and KPIs, annual reports, or term reports.

the data is appropriately balanced with the cost to provide it, the Council Chair may bring the decision to a vote at the Council. In the event of continued disagreement following a vote at the Council, the PAs reserve the right to immediately petition the Department to appeal the determination.

The PAs and the Council Chair will maintain a tracking list of all active and completed data requests. As requested, the PAs will disseminate data request results to the full Council. This process will minimize administrative costs by providing a single point of contact to minimize multiple communications. Requesters must include supporting information with each request, thus requiring the requester to clearly articulate the purpose and consider alternative pathways. This process ensures that the PAs can review each request for value, usefulness, and cost prudence. This process will apply to all Council data requests, regardless of estimated response time. This process does not apply to the day-to-day work of the EEAC Consultant Team and the PAs through Management Committees and other standing meetings.

5.6 Budget Spending

Data Management Costs, Separate from Evaluation Costs

Many years ago, the PAs worked with a third-party evaluation vendor to create a customer profile study. A result of that effort is the statewide customer profile dashboard. Currently the PAs are tracking all of the data support that the third-party evaluator gives the PAs within the evaluation budget category. Much of the work the vendor performs is supporting the PAs' data efforts outside of the profile studies completed as part of the evaluation framework.

For the 2025-2027 term, the PAs would like to track those expenses separately. Approximately 25 percent of the vendor's data management contract is explicitly related to evaluation such as supporting other evaluation vendors with their data requests and publishing a residential and commercial customer profile study each year. The remaining three-quarters of their work consists of providing municipalities with data and supporting other PA-driven requests such as lists of customers likely using delivered fuels for heating which are not related to evaluation. Therefore, to more accurately reflect this transition, the PAs have assigned 75 percent of the data management costs related to these activities within the "Statewide Database" row of each PA's budget in the PP&A budget category, rather than in the "Statewide Evaluation" row. Given the intended improvements to Mass Save Data to modernize technology and improve the user experience, the PAs anticipate increasing spending on this dashboard as well. In addition, the PAs plan to increase their spending to provide timelier responses for ad hoc data requests.

5.7 Data Aggregation Standards

As noted above, to protect customer privacy, and pursuant to standards articulated by the Department in D.P.U. 14-141, the PAs have aggregated data according to the following guidelines. The PAs must aggregate and report all data at the ZIP code level. For aggregated C&I data, the database displays only when there is a minimum of 15 customers, with no single customer accounting for more than 15 percent of electric or natural gas usage. For aggregated Residential and Low-Income sector data, the database displays only when there is a minimum of 100 customers.

5.7.1 Data Aggregation Standards: Proposed Changes

Following the PAs' experience applying the data aggregation standards, the PAs propose some refinements to the standards for the next Plan cycle to increase transparency in the Residential and Low-Income sector, particularly at the community level, while remaining protective of customer privacy.

Because it enables varied and detailed analyses, granular data is the most useful to interested stakeholders, researchers, and the public. However, a primary concern with making granular data available publicly is privacy concerns from re-identification, or the discovery of an individual's personal information from a dataset that has been de-identified. Even after the PAs have aggregated the dataset and removed the personally identifiable information, there may still be the possibility of inadvertently disclosing personal information about customers represented in the dataset. For more detailed information and guidance on how to weigh the risks and benefits of publishing government data as open data, see Harvard University's 2017 report, "[Open Data Privacy: A risk-benefit, process oriented approach to sharing and protecting municipal data](#)".

To develop recommendations for changes to the existing data privacy standards, the PAs researched data aggregation standards used in other jurisdictions including California, New York, and Connecticut as well as by the US Census Bureau in the American Community Survey data.

California

In 2014, the California Public Utilities Commission issued a "Final Decision adopting Privacy Rules directed at accessing Energy Usage and Usage-Related Data While Protecting Customer Privacy (D.14-05-016)".¹⁶⁰ The goal of the rules was both to protect customer privacy, but also enable customers to access usage data and share

¹⁶⁰ See California Public Utilities Commission, "[Final Decision adopting Privacy Rules directed at Accessing Energy Usage and Usage-Related Data While Protecting Customer Privacy](#), (D.14-05-016)".

that data with authorized third parties to promote future conservation and grid management activities. For posting data publicly, the California Public Utilities Commission established the following rules, adopted by the Department in D.P.U. 14-141.

- **For residential customers**, the ZIP code must have 100 or more residential customers. For ZIP codes that lack 100 residential customers, the utility must aggregate the data with a bordering ZIP code until the aggregation includes at least 100 residential customers.
- **For commercial, industrial, or agricultural customers**, the ZIP code must have 15 or more commercial or agricultural customers, with no single account constituting more than 15 percent of the total consumption in any month. For ZIP codes that do not meet this standard, the commission directed the utility to aggregate the consumption with a bordering ZIP code until the area contains at least 15 commercial or agricultural customers, with no single account constituting more than 15 percent of the total consumption in any month for the combined ZIP codes.

For local government access, the following rules apply:

- **For residential, commercial, or agricultural customers**, the request must have 15 or more customers, with no single account accounting for more than 20 percent of the total consumption in any interval requested and the data must not contain personal identifying information pertaining to any account. For requests that do not meet this standard, the utility must work with the requestor to include additional customers until they meet the requirement.
- **For industrial customers**, the request must have five or more industrial customers, with no single account accounting for more than 25 percent of the total consumption in any interval requested equal to or greater than a month and the requested data must not contain identifying information pertaining to any account. For requests that do not meet this standard, the utility must work with the requestor to include additional customers until they meet the requirement.

New York

New York developed data aggregation standards similar to California's, except the state did adopt the C&I standard for all customer sectors.¹⁶¹ The 15/15 standard provides that the utility may share an aggregated data

¹⁶¹ See State of New York Public Service Commission, [Order Adopting Whole Building Energy Data Aggregation Standard](#), issued and effective Apr. 20, 2018.

set only if it contains at least 15 customers, with no single customer representing more than 15 percent of the total load for the group. Under the 15/15 standard, New York considers aggregated customer usage data sufficiently anonymous to share publicly if (1) the aggregated group contains at least 15 individual accounts, and (2) no one account represents more than 15 percent of the total load. In general, a privacy standard for aggregated energy data establishes the minimum configuration and characteristics of energy accounts that, when aggregated over a geographic area or building, provide a reasonable expectation of customer privacy by not revealing or permitting determination of individual customer-specific energy use.

Connecticut

The Connecticut State Data Plan¹⁶² (Principle 12, p. 8) provides the following guidance on aggregating and publishing open data:

- Provide open data at the finest level of geographic and demographic granularity possible, with consideration of client/consumer data confidentiality, privacy, and deductive disclosure.
- Aggregate private and sensitive data in consistent, meaningful, and respectful ways, which enables policy makers to make better decisions while protecting the rights and dignity of the person from whom they collected the data.

Connecticut does not have specific criteria that the PAs are aware of related to utility data. However, the Connecticut state guidance refers to a helpful document outlining the Connecticut State Department of Education (“CSDE”) data suppression guidelines available on its website. This document discusses when to suppress data in aggregated datasets and may be a helpful starting place for agencies looking to publish private and sensitive data as open data. The document provides the following suppression rules:

Suppression of Cell Counts

- If any cell is ≤ 5 the value is suppressed (this includes a total).
- If cell is ≤ 5 and only one value is suppressed in a row or column, the next highest value in that row or column is also suppressed. If there are multiple occurrences of this value, randomly suppress one occurrence. This is referred to as complementary suppression.
- Totals are retained whenever possible.

¹⁶² See CSDE Data Suppression Guidelines.

- Fields with a value of 0 are not suppressed.
- All categories by which data are parsed (e.g., race, EL) are presented in report tables even if there are no data for categories.

Suppression of Computed Statistics

When cell counts are small, suppression of statistics (e.g., average, percent of total) protects confidentiality and ensures that statistics based on a small sample size are not interpreted as equally representative as those based on a sufficiently larger sample size. Suppress a statistic if any one of the following conditions is true:

- The count associated with the statistic has been previously suppressed.
- The numerator is ≤ 5 .
- Denominator is < 20 .

For more detail about the CSDE's suppression guidelines, see "[Data Suppression Guidelines](#)." The Connecticut standards also refer to a Harvard study, "[Open Data Privacy](#)," which focuses on cities collecting and storing a wide range of data that may contain sensitive information about residents. As cities embrace open data initiatives, more groups release this information to the public. While opening data has many important benefits, sharing data comes with inherent risks to individual privacy as released data can reveal information about individuals that would otherwise not be public knowledge.

US Census Bureau - American Community Survey

The American Community Survey ("ACS") is an annual demographics survey program conducted by the US Census Bureau.¹⁶³ Every year, the US Census Bureau contacts over 3.5 million households across the country to participate in the survey. The ACS covers a broad range of topics about social, economic, demographic, and housing characteristics of the U.S. population and small population subgroups. To protect customer privacy, the US Census Bureau suppresses data if it does not meet the following criteria:

- Fifty or more cases in the geographic area.
- Three or more cases are required to publish a cell in a table.
- Complementary suppression is required to prevent users from calculating suppressed data.

¹⁶³ See ACS Office Data Suppression (census.gov).

5.7.2 Proposed Data Aggregation Standards

The recommended approach is to leverage the standards developed by the CDSE. The PAs propose using those standards as they are both simple to understand and apply (i.e., do not require usage calculations) while also being comprehensive in their applicability. The PAs propose that to protect residential (including low-income customers), commercial, and industrial customer privacy, an aggregated set of data may be shared only if:

- The population size represents at least 20 individual customer accounts.
- Five or more cases are represented in the data cell.
- Complementary suppression¹⁶⁴ is applied to prevent users from calculating suppressed data.
- If the aggregation thresholds are not met, then that particular data point will be suppressed. This same standard would apply to the most granular level of data shown, including any geographic view of data (i.e., town, ZIP Code, Census Block Group) or if filters are applied to the data (i.e., by PA, building type, etc.). Data shared at a geographic level would be no more granular than the Census Block Group level for residential customers and no more granular than municipality level for C&I customers except for Boston where ZIP code level data is reported due to the size of the city and unique characteristics of each neighborhood.
- Data request examples are shown below to show how this aggregation standard would be applied to usage data such as consumption and participation data such as incentives.

Data Suppression Examples

If showing residential electric *usage data*, such as consumption by census block group or filtered by a demographic characteristic such as home type, there would need to be at least 20 residential (including low income) electric customer accounts in that group to show the aggregated usage data. If a particular group has fewer than 20 residential electric customer accounts, the PA will suppress the data for that geographic or other defined group with the same feature.

Following the same example, if showing *participation data*, such as incentives or savings, the PA would need at least 20 residential electric customer accounts in that census block group and at least 5 residential electric

¹⁶⁴ If cell is ≤ 5 and only one value is suppressed in a row or column, the next highest value in that row or column is also suppressed. If there are multiple occurrences of this value, randomly suppress one occurrence. This is referred to as complementary suppression. Depending on dashboard capabilities, this may be handled by rounding up by the suppression threshold (i.e., 20).

participants in that census group to show aggregated participation data. If neither of those thresholds are met, the PA will not show the participation data at that granularity. The figure below showcases a variety of data use cases to further illustrate how the data suppression standards apply in practice.

Figure 52: Illustrative Example of Proposed Data Privacy Standards

Use Case	Customer Type	No. of Cases	Applicability of Data Suppression
Usage by Census Block Group by Sector and Fuel	Residential Electric	50 Residential Electric Customer Accounts in Census Block Group	SHOWN Population size represents at least 20 customer accounts
Savings and incentives by Census Block Group, Sector, and Fuel	Residential Electric	50 Residential Electric Customer Accounts in Census Block Group and 7 Residential Electric participants in Census Block Group	SHOWN cell data represents at least 5 participants and population size represents at least 20 customer accounts
Usage by Census Block Group by Sector and Fuel	Residential Electric	15 Residential Electric Customer Accounts in Census Block Group	SUPPRESSED population size represents less than 20 customer accounts
Savings and incentives by Census Block Group, Sector, and Fuel	Residential Electric	15 Residential Electric Customer Accounts in Census Block Group and 7 Residential Electric participants in Census Block Group	SUPPRESSED fewer than 20 Residential Electric accounts in Census Block Group
Savings and incentives by Census Block Group, Sector, and Fuel	Residential Electric	25 Residential Electric Customer Accounts in Census Block Group and 3 Residential Electric participants in Census Block Group	SUPPRESSED cell data represents less than 5 participants
Usage for C&I Industry Segment (i.e., Construction) in a PA Territory	C&I Electric	30 C&I Electric Customer Accounts in the Industry Segment in a PA Territory	SHOWN population size represents at least 20 customer accounts
Savings for C&I Industry Segment (i.e., Construction) in a PA Territory	C&I Electric	30 C&I Electric Customer Accounts in the Industry Segment in a PA Territory and 2 C&I Electric Participants in the Industry Segment	SUPPRESSED cell data represents less than 5 participants
EES Contributions by Low-Income Customers in a ZIP Code	Residential Electric (including low income)	75 Residential Electric Customer Accounts in the ZIP Code and 3 of which were on a discount rate	SUPPRESSED cell data represents less than 5 customers on the discount rate

Use Case	Customer Type	No. of Cases	Applicability of Data Suppression
EES Contributions by Low-Income Customers in a ZIP Code	Residential Electric (including low income)	75 Residential Electric Customer Accounts in the ZIP Code and 12 of which were on a discount rate	SHOWN cell data represents at least 5 customers on the discount rate and population size represents at least 20 customer accounts

5.7.3 Key Differences from Current State to Proposed Data Aggregation Standards

Here are the notable changes to existing standards:

- Setting data privacy standards at the Census Block Group and no more granular for geographic data.**
 The current standards only specifically mention ZIP codes and PAs are often hearing from stakeholders that access to more granular geographic data would be helpful to deliver the programs more effectively. For context, there are approximately 5,000 census block groups in MA with an average of 655 people in a census block group vs. approximately 500 ZIP codes in MA with an average of 5,215 people in a ZIP code. Given that the average Census Block Group includes 655 people, the PAs feel it is appropriate to share data to this level but do not think it appropriate to show anything more granular.
- Setting same data privacy standards for Residential and C&I customer data types.** In the current guidelines, the standards differ depending on if the data is Residential or C&I. The proposed standard sets one set of rules for data privacy, regardless of customer type.
- Changing threshold from 100 to 20 customer accounts for residential customer data and from 15 to 20 for C&I customer data.** Currently, the PAs display the Residential and Low-Income sector data only when there is a minimum of 100 Residential customer accounts and C&I data when there is a minimum of 15 C&I customer accounts. The PAs propose setting the threshold to 20 customer accounts for Residential and Commercial.
- Add in additional suppression for any participation data so no singular data point represents fewer than 5 participants.** The PAs established this new suppression rule to ensure that participation data is properly protected but less restrictive than their protection of usage data (billing accounts vs. participation accounts). This allows the PAs to increase transparency by lowering the overall customer account threshold while still helping guard customer privacy.
- For C&I, remove requirement where no single customer accounts for more than 15 percent of usage.**
 By raising the threshold from 15 C&I customer accounts to 20 C&I customer accounts and adding in

the additional participation threshold such that no one participation data point represents fewer than 5 C&I participants, the PAs' new approach maintains customer privacy while being much simpler to operationalize in practice compared to applying the suppression criteria of any 1 customer accounting for more than 15 percent of usage.

- **Suppressing data that does not meet aggregation standards rather than aggregating with neighboring ZIP codes.** The PAs suggest removing the requirement to aggregate ZIP Code data that does not meet the aggregation standards with neighboring ZIP codes and instead suppress data that does not meet privacy thresholds. Other well-known and respected data sources, such as the US Census, apply privacy standards by suppressing data that does not meet standards and then show data at a more aggregated level, if privacy thresholds are met. The PAs would propose to do the same. For example, if US Census block group data is being shown and there are not at least 20 customer accounts but there are at the town level then the data would be shown at the town level instead and would only be shown at Census block group level of those block groups with at least 20 customer accounts.

Section 6: Marketing

6.1 Overview

In 2010, the Program Administrators united under a statewide brand—Mass Save—to promote energy efficiency programs across the Commonwealth. The goal was to enhance customer engagement by offering consistent programs and incentives through a unified voice. As "Sponsors" of the Mass Save service mark, the PAs aim to engage, educate, and support residential and business customers about energy efficiency programs, ultimately driving greater impact. The trifecta approach used includes the Mass Save mark, the PA logo(s), and energy efficiency messaging to help customers understand and appreciate the shared mission and support of customer energy efficiency journeys.

A trademark or service mark identifies goods and services as originating from a single source. Trademarks, in effect, represent the goodwill that a business has built up through its history of offering quality goods and services. A word mark is the most common form of trademark and simply consists of a word or group of words. The PAs have rights to the word mark Mass Save, having obtained federal registration on August 29, 2006. Under trademark law, the PAs monitor and control the use of their marks to maintain their integrity and to prevent inferior energy efficiency services from diminishing them. Throughout the past four three-year plan periods, the PAs have overseen significant monitoring efforts with respect to the Mass Save mark to identify unauthorized uses of the service mark. Legal measures have been successful in stopping such unauthorized uses and thus the PAs have protected the integrity of the mark. Throughout the 2025-2027 term, the PAs' marketing efforts will continue under and including the Mass Save brand as will their work to maintain the equity of the brand.

The Mass Save marketing campaigns and efforts are central to the 2025-2027 Plan and are helping transform markets to equitably deliver energy savings and reduce GHG emissions. The ultimate goal of the 2025-2027 marketing strategy is to build a culture of energy efficiency and decarbonization in the Commonwealth with a strong emphasis on supporting all customers' participation in Mass Save programs. The PAs will continue to use a multi-channel approach to effectively communicate with Massachusetts residents and businesses. This multi-channel marketing approach is crucial as it recognizes the diverse preferences of customers, allowing the PAs to engage with audiences across various platforms and channels and meet them where they are in their understanding of and engagement with energy efficiency and electrification. By taking a customer-centric

approach to communications, the PAs can enhance the reach and relevance of the communication, foster stronger connections, and increase the likelihood of successful communications and program participation.

In addition to launching campaigns and culturally relevant outreach, the PAs will receive real-time and timely status updates on campaign successes and results, allowing them to benchmark and evaluate the effectiveness of their messaging and media placements and optimize their marketing strategies to further drive program participation. Rigorous reporting, tracking, and measurement of campaigns are essential components of the PAs' marketing efforts, ensuring appropriate and efficient allocation of resources.

For the 2025-2027 term, the core objectives of the PAs' education, awareness, and promotion campaigns will include 11 key objectives:

1. Increase consumer awareness of and participation in the Mass Save energy efficiency, electrification, and demand response programs to reduce energy use and GHG emissions.
2. Encourage and facilitate equitable participation in the programs.
3. Drive reduction of GHG emissions via electrification and weatherization.
4. Diversify and strengthen the workforce through strategic marketing support, including marketing outreach and resources, tools and opportunities for trade partners, and a focus on MWBEs.
5. Drive program participation of LOTE customers.
6. Foster behavioral changes that lead to energy savings, the reduction of GHG emissions, and monetary savings.
7. Build awareness of the Mass Save brand, in association with the PA brands, as a trusted statewide resource for all things involving energy efficiency and decarbonization needs.
8. Educate customers about compelling and easy to understand program benefits to drive participation among all customer segments, including the residential, low-income, commercial, industrial, and municipal customer sectors, as well as trade/industry professionals.
9. Ensure adequate and effective reach to all customers, including customers within environmental justice communities and those who have not yet participated in Mass Save programs, through diverse, strategically selected, media channels (e.g., digital, radio, public transit, social media, etc.).
10. Encourage positive experiences and satisfaction among customers to naturally lead to the organic spread of positive word-of-mouth referrals within the community, and to foster connections and trust among neighbors.

11. Achieve broader and more profound energy savings through coordination of various strategies to educate customers about the opportunities to save energy and reduce GHG emissions.

See section 6.2: Sectors below for more information about the measures, programs, and initiatives the PAs will support in the 2025-2027 term.

6.2 Sectors

Residential

- Heating and cooling (Residential Rebates)
- Products (lawn equipment and appliances)
- Weatherization (Residential Turnkey Solutions)
- Home Energy Assessments (Residential Turnkey Solutions)
- Renovations and new construction
- Financing (HEAT Loan)
- ConnectedSolutions / demand response
- Low income and moderate income
- Online Marketplace
- Multifamily

Low-Income

- Low income and moderate income
- Multifamily

Commercial & Industrial

- Building insulation and weatherization
- Heating and cooling
- Lighting and controls
- Building and HVAC controls
- Specialty equipment (e.g., foodservice, lawn equipment, lab equipment, laundry, etc.)
- Water heating and pipe insulation
- New construction
- Small business

- Online Marketplace
- Demand response
- Community Outreach
- Community First Partnership

Workforce Development

- Contractor management and training
- Supplier diversity
- Clean Energy Pathways

6.3 Marketing Campaigns

The PAs' campaigns will:

- Use messaging that clearly describes the benefits and importance of energy efficiency and reducing GHG emissions.
- Reach the maximum number of target consumers possible.
- Strategically design marketing efforts to meet the optimal frequency required to achieve maximum results.
- Market to differentiated consumer types and communities throughout the state including communities where English is not the primary language with a specific focus on Spanish, Portuguese, Mandarin, Cantonese, and Haitian Creole.
- Use a variety of digital, social, and traditional media that may or may not include digital display advertising, website content, social media, social media, television, radio, billboards, public transit, trade, business, print, newspaper, search engine optimization, Google, and professional associations, as appropriate in reaching the targeted audiences.
- Leverage statewide and program marketing strategies together to achieve deeper and broader savings.

The PAs recently overhauled their long-standing approach to marketing. An RFP was executed, and all statewide marketing and program marketing were combined under one new strategy and an integrated team

of qualified agencies, specialized by core discipline instead of by program. The agencies have been hired to focus on:

- Marketing strategy
- Website
- Media advertising
- Creative development
- Direct outreach
- Public relations
- Event coordination
- Social media content and management
- Social media listening and response

This new approach aims to reach customers via a more holistic, comprehensive approach. This restructuring also affords the opportunity to curate a marketing team of multiple agencies highly specialized in their area of discipline, thus garnering more robust skillsets, best practices, and an enhanced caliber of work.

This new centralized model will serve as the optimal infrastructure for supporting the goals of the 2025-2027 plan. Rather than targeting customers with program-specific messages, the PAs will more easily deploy customer-centric campaigns to drive greater program participation and deeper savings while providing a better customer experience. The PAs will market to customers by audience type: residential customers including homeowners, renters, and income-qualifying customers; commercial and industrial customers, including organizations of all sizes; municipal customers, and community partners. The campaigns will focus on overcoming obstacles preventing adoption and finding proactive opportunities to market relevant content and offerings that best guide the customer along their energy efficiency journey as well as provide for more comprehensive energy savings.

This significant shift in strategy will provide customers with a greater understanding of all available solutions and the benefits of taking action, while delivering significant cost-efficiencies to the PAs, who are the stewards of the Mass Save funds. Furthermore, there will be greater synergies and more centralized reporting, allowing for greater applied learnings across campaigns.

6.4 Data-Driven Research

Data-driven marketing will be cornerstone to the 2025-2027 marketing strategy. This includes market research to inform marketing tactics, media strategies and messaging. In 2024, the PAs are continuing their longitudinal research studies to update baseline metrics on customer familiarity, understanding, favorability, and propensity to engage with Mass Save programs and services, as well as likelihood to act and use them among residential and commercial audiences. This survey will inform marketing, messaging and metrics and help improve the campaign effectiveness.

Research will be supplemented by data from the EPA's ENERGY STAR program that provides additional insights into the messages likely to drive consumers and businesses to energy efficiency and electrification action and the terms that resonate and do not resonate. In 2024, the PAs and the supporting agencies are conducting additional, multilingual research to better understand barriers to action, the impact of rebates and other financial incentives to act, identify new trusted messengers, and refine marketing campaign concepts and creative. This research will also provide the most up-to-date data insight into the customer journey and where in the process of program participation that customers fall off, so the PAs can address these issues directly in the 2025-2027 term.

Hard-to-Reach Customers

- LOTE customers
- Renters
- Small business owners
- Low income

During the 2022-2024 term, the PAs executed specific educational outreach to reach targeted audiences including Spanish and Portuguese speakers, renters, income-eligible customers, and small business owners, and will continue to target these audiences in the 2025-2027 term.

6.5 MassSave.com

The PAs maintain a joint statewide website, MassSave.com, which is designed to educate customers and provide access to energy efficiency program information and participation. MassSave.com provides the PAs an opportunity to offer a central hub of information, including an online home energy assessment, online rebate processing, access to an online retail marketplace, and online HVAC facilitation tools, which offer substantial customer experience benefits. The centrality of MassSave.com to the PAs' marketing efforts demonstrates the

commitment of the PAs to working together for the benefit of customers throughout the state and will continue to be a core element of the 2025-2027 marketing strategy.

The PAs' focus on total customer experience recognizes the entry of the customer through MassSave.com as a critical component of that experience. MassSave.com is continually being updated and enhanced. As a result of extensive usability testing, a major overhaul of MassSave.com's global navigation was conducted in 2023 to optimize the user experience and drive greater program participation. Nearly every section of MassSave.com has gone through web template updates, re-writes, journey mapping, new page creations, and more to make the website even more robust and easy to use.

Several new sections have been created to ensure all programs offered to customers are clearly messaged with strong calls to action. This includes website enhancements for the trade partners section of MassSave.com. This area of MassSave.com further connects contractors and other critical business partners with the training, resources, and information they need to excel in implementing energy efficiency programs. It also serves to connect with new trade partners to further expand and diversify the workforce. Many of the new pages created and content that was updated involved the expansion of messaging and branding strategies into the broader context of energy and environment, supporting the Commonwealth's expanded policy objectives around electrification, renewable energy, and clean energy strategies. In part, the PAs developed a series of new electrification focused webpages to educate customers and increase the adoption of non-fossil fuel technologies.

As part of the 2025-2027 Plan, these webpages will serve as a platform for an expansion of electrification-related content and information. Furthermore, the PAs will make greater MassSave.com enhancements to foster an optimal user experience. This will include personalization enhancements to nurture residential and business customers along their energy efficiency journey by providing the most relevant and helpful content and information. MassSave.com is currently accessible in English, Spanish, and Portuguese, the most common languages spoken across the state, and may include other language tools in the future to ensure accessibility for diverse linguistic populations.

Section 7: Research, Development, and Demonstration

In their continued efforts to explore innovative technologies, measures, and solutions available for customers, the PAs set forth this budget to pursue research and development for new technologies, measures, and solutions that may lead to customer savings. This budget allows the PAs to be proactive leaders in innovation and constantly add to their portfolio of offerings for customers. The PAs charge the costs associated with research and development into areas of interest to this category.

The PAs constantly perform research and development work identifying innovative technologies, measures, and solutions for customers. During the 2022-2024 term, the PAs developed several new portfolio additions including: (1) prescriptive C&I weatherization, (2) expanded Qualified Products List categories to include more electrification opportunities for customers of all sectors, (3) small equipment electrification for all sectors, (4) C&I building controls offerings, and (5) C&I and Low-Income Deep Energy Retrofit offerings. As a result, the PAs now offer these solutions to customers as full programmatic opportunities. Additionally, the PAs have conducted the necessary research and development to make multiple proposals for portfolio expansion within the 2025-2027 Plan. This includes non-energy related GHG reduction space and embodied carbon in the new construction space.

Demonstration projects, meeting the definition and intent of recent updates to the DPU's Energy Efficiency Guidelines, may be considered, where applicable. Proposed demonstration projects must meet the following criteria: (1) reasonableness of the size, scope, and scale of the proposed project in relation to the benefits to be achieved, (2) adequacy of the Evaluation Plan, (3) extent to which there is appropriate coordination among the PAs, and (4) utility bill impacts to customers.

During the 2025-2027 term, the PAs will seek to identify demonstration project candidates and propose them within the three-year plan term through a mid-term modification. There is a PA demonstration proposal to incentivize solar photovoltaic for customers to support controlling building electrification operating costs (see Appendix K, section K.6)

Section 8: Efforts to Reduce Costs

8.1 Introduction

The PAs pursued several strategies in the 2022-2024 term aimed at reducing or minimizing costs including efforts to minimize administrative costs, use competitive procurement, and control program incentive and non-incentive costs. In the next several subsections, the PAs provide details on the cost control strategies they pursued during the 2022-2024 term to minimize administrative costs and use competitive procurement and their plans to continue these strategies in the 2025-2027 term.

As program costs increase and proposed offerings evolve, the Program Administrators have also identified several new cost-control strategies for the 2025-2027 term. To identify and commit to additional cost-control strategies, the PAs worked closely with DOER, the AGO, the Council consultants, and the EEAC and ensured they prioritized program resources for the most vulnerable customers. While not exhaustive, the PAs highlight key strategies in further detail below and in section 3: Statewide Programs.

8.2 Minimizing Administrative Costs

In accordance with the GCA, during the 2022-2024 term, the PAs sought to minimize administrative costs to the fullest extent practicable. Administrative costs, also commonly referred to as PP&A (program, planning, and administrative) costs, are associated with:

- Day-to-day program administration, including labor, benefits, expenses, materials, supplies, and overhead costs.
- Any regulatory costs associated with energy efficiency activities.
- Costs for development of program plans, including market transformation plans and RD&D activities (excluding RD&D assigned to Evaluation and Market Research).
- Costs for energy efficiency services contracted to non-affiliated companies such as outside consultants used to prepare plans, screen programs, improve databases, and perform legal services.
- Internal salaries for administrative employees/tasks, including program managers who do not have direct sales and technical assistance contact with customers.

The most significant factor in the PAs' approach to minimizing administrative costs is the statewide collaborative process. The PAs used this collaborative process to coordinate planning, the adoption of consistent programs and processes, program design, EM&V studies, statewide marketing, regulatory proceedings, joint procurements, the use of common vendors for certain services, and the development and sharing of all best practices. Rather than PAs bearing costs individually, shared costs allow them to use economies of scale; thereby reducing their costs. The PAs can minimize administrative costs by coordinating energy efficiency program delivery, where appropriate, with other customer service activities such as customer acquisition, joint RFPs, use of common vendors, key account management, and trade ally relationships.

The PAs also seek to minimize administrative costs in reporting by collaborating on reporting templates and through the use of KPIs, which they report on a quarterly basis and make available on the Council's website. As noted in section 5: Statewide Data and Data Transparency, the PAs also make performance and other program data available on Mass Save Data (<https://www.masssavedata.com/public/home>), the PAs' energy efficiency database. Similarly, the PAs have developed the Customer Profile Dashboard (<https://www.masssavedata.com/Public/CustomerProfileDashboard>), which provides public access to a wide array of aggregated customer usage and program participation data in a transparent and easy-to-use web-based format. These tools allow the PAs to provide significant amounts of data to stakeholders and the public, thereby avoiding individual data requests.

The PAs have also worked closely with DOER to address requests from interested parties for program-related information in an efficient manner. The PAs appreciate DOER's collaboration in focusing these requests on the information that is most relevant and in referring parties to readily available public information as applicable. For the Plan, the PAs and the Council consultants have updated the KPIs to provide useful, regular reporting designed to reduce ad hoc public and Council data requests and minimize administrative costs.

Notwithstanding coordination with other customer service departments, it is necessary and appropriate for all PAs to maintain a skilled and dedicated administrative staff to ensure successful delivery of programs, compliance with the GCA, timely responses to the requests of the EEAC, Department, and DOER, achievement and documentation of savings, as well as to respond to the unique needs of their territories. The PAs seek to balance the need to minimize administrative costs to the extent prudent with the need to maximize program adoption, quality, and oversight in their service territories. Councilors have emphasized the need to devote sufficient administrative resources to successfully implement the aggressive programs called for in the three-year plans.

While the economies of scale and other steps taken to minimize costs are effective, and administrative costs incurred by the PAs are transparent, exact quantification of the minimization of administrative costs is not possible in a meaningful way. This is because the continuous scaling up and evolution of the three-year plans make it impractical to establish an accurate baseline of administrative costs that allows for a meaningful comparison. Because the variables are constantly (and necessarily) shifting from term to term and within a term, the PAs have no opportunity to make a meaningful quantitative comparison regarding how they reduce costs. In fact, a direct quantitative comparison term over term or year over year would only provide a comparison of two points in time.

The mandate of the GCA is to seek administrative efficiencies, which is a continuous process that evolves along with energy efficiency planning and implementation. Program needs and opportunities for administrative efficiency are always changing, and the PAs seek to minimize costs at every available opportunity, and not just from one point in time to another. By collaborating, creating consistent programming, optimizing staffing, and providing beneficial reporting, the PAs can minimize administrative costs to the extent practicable while providing quality energy efficiency services for customers.

The PAs continue to apply lessons from an administrative cost study conducted prior to the 2019-2021 term. The evaluation firm finalized this study, *The Best Practices for Minimizing Program Planning and Administrative Costs for the Massachusetts Utilities and Energy Efficiency Services Providers*, on October 25, 2018 (“PP&A Report”) and the PAs filed it with the 2019-2021 Plan. The PP&A Report:

- Identified best practices, both in Massachusetts and nationwide, for tracking and assessing administrative costs.
- Identified potential benchmarks, metrics, and/or indicators for measuring administrative costs.
- Provided specific recommendations, as appropriate, for reducing administrative costs.

In addition to the efforts noted above, and consistent with the PP&A Report, the PAs continue to seek to minimize administrative costs using the following overall recommendations:

- **Continue to focus on ways to improve consistency in accounting practices.** The Program Administrators have reviewed accounting practices and have determined that they are consistent among the PAs. The PAs allocate costs based on budgets, assigning the same percentage of an allocated cost to a program as the percentage of the sector or portfolio budget (as appropriate) planned for that program. The manner of allocation is the same among the PAs, even though the

actual percentages necessarily differ based on the spending needs for each program in each service area.

- **Follow cost accounting best practices in allocation, tracking, and control.** The PAs regularly communicate to ensure they allocate costs in accordance with a common methodology and maintain spreadsheets documenting cost allocation decisions. Each PA has specific employees dedicated to reviewing costs. The PAs have not sought to establish targets for cost reduction, as spending is related to program implementation, but continue to review costs to reduce them where possible and ensure that they support a direct energy efficiency benefit.
- **Implement an annual process to stress test status quo processes and spending.** The PAs review spending at the time of the Term Report and Plan-Year Report. The PAs have performed a detailed review of costs in connection with the preparation of each annual report since the issuance of the study referenced above. Additionally, PAs continuously work through management committees and working groups on reviewing processes and spending.

The Massachusetts PAs will continue to use these recommendations during the 2025-2027 term to assist in efforts to continuously minimize administrative costs to the greatest extent practicable without negatively affecting program delivery.

8.3 Competitive Procurement

The PAs use competitive procurement processes to engage and retain contractors and vendors to perform activities including, but not limited to assessment delivery, QC, rebate processing, monitoring and evaluation, potential studies, and marketing. The PAs are committed to continuing to fully use competitive procurement practices throughout the 2025-2027 term. Therefore, consistent with past practice, the PAs will continue to issue RFPs to engage appropriate third-party vendors to provide energy efficiency services and work collaboratively to ensure that they have procured services in a manner that minimizes costs to customers, while maximizing the associated benefits of those investments. Through the PAs' supplier diversity and competitive procurement efforts, the Program Administrators will continue to expand the pool of qualified program vendors, promote the entry of new market actors into contractor and subcontractor roles, encourage diversity and inclusion through procurement, and ensure the transparency of the contractor bidding process and selection criteria used to evaluate proposals.

8.4 Additional Strategies to Reduce or Minimize Costs for the 2025-2027 Term

The Program Administrators have also identified several new strategies to reduce or minimize costs for the 2025-2027 term across the Residential, Low-Income, and C&I sectors, as well as marketing. These strategies are described in further detail below.

Residential Sector Strategies

Heat Pump Incentives

In response to EEAC feedback and the need to further control program costs, the PAs have adopted a declining incentive structure for heat pump incentives over the term. These declining reductions will help control costs and free up budget for other equity-related Plan priorities. See section 3.1.3: Residential Rebates for further details on the heat pump incentives. The PAs will also implement a dollar-per-ton cap for the Whole-Home Heat Pump Rebate incentive tier, which is meant to prevent paying out disproportionately high incentives for smaller whole home heat pump systems (Strategic Enhancement #5 in Section 3.1.3: Residential Rebates).

HEAT Loan Considerations

The HEAT Loan has been a key component in the success of the PAs' energy efficiency plans. Customers consistently identify the HEAT Loan as a reason why they installed measures and affirm that the financing enabled them to make more improvements than they would have without the loan.¹⁶⁵ Recognizing the importance of the HEAT Loan, but also the desire to reduce costs associated with the loan and allocate additional budget to equity priorities, the PAs have proposed a number of changes to the HEAT Loan for the upcoming term. At the highest level, the PAs have reduced the overall three-year budget for the HEAT Loan to \$190 million. The PAs will continue to offer a 7-year repayment term at 0% interest for households earning from 81% up to 135% of SMI.¹⁶⁶ Customer households earning 135% up to 300% of SMI and those earning above 300% of SMI will be eligible for 5-year and 3-year loan terms respectively at 0% interest rate. There will also be a cap of \$25,000 per HEAT Loan.

¹⁶⁵ See [HEAT Loan Assessment](#) (RES 37), Table 2, at 9. For further background on the HEAT Loan and how it operates, please see section 3.4.5: HEAT Loan.

¹⁶⁶ Note: this bracket aligns with income requirements for the Energy Saver Home Loan offered by the Massachusetts Community Climate Bank.

In an effort to keep HEAT Loan costs down, the PAs will also undertake cost saving efforts such as cross promoting other financing opportunities with the Massachusetts Community Climate Bank to reduce the number of loans. The PAs will also explore opportunities to negotiate an interest rate reduction with lenders relative to current levels and consider the potential for establishing risk mitigation mechanisms (including, but not limited to, a loan loss reserve) to help support such reductions. Further, the PAs will also establish a stakeholder working group, which includes the AGO, DOER, and the Council Consultant team, to explore options for bringing down HEAT Loan costs, including the potential for accessing outside capital. Finally, the PAs have committed to completing a HEAT Loan study to evaluate the importance of the loan in driving uptake of improvements and the sensitivity of those decisions to customers of different income levels at different interest rates, with a goal of determining whether the PAs can make further modifications to the HEAT Loan that will reduce costs without impacting the effectiveness of this vital program. See section 3.4.5: Heat Loan for further information.

Transparency of Heat Pump Pricing

The PAs acknowledge the importance of creating heat pump pricing transparency, so customers are better informed when soliciting and reviewing heat pump installation quotes from HPIN contractors. Ultimately, the PAs expect that greater transparency will help to reduce the costs that customers pay for the installation of their choice. While this does not have a direct impact on program costs, it is complementary to the declining heat pump incentive structure described above.

The PAs will support price transparency in two ways. First, the PAs will create a public facing, geographically based heat pump pricing guide using anonymized data from program participants. This guide is meant to be a reference for customers as they solicit and review heat pump bids from HPIN contractors, so they have visibility into the average installation costs in their area and can better ensure that they are receiving competitive pricing. Second, the PAs will launch a quote comparison service through which customers will have access to specialists who will walk them through each bid they have received, so they are more educated when it comes time to decide which quote and HPIN contractor is the best fit for them. See section 3.1.3: Residential Rebates for further details on heat pump pricing transparency.

Residential Turnkey Solutions Delivery Model

The Residential Turnkey Solutions initiative will expand its delivery model to address pre-weatherization and electrification barriers and to support heat pump installation, starting first with moderate-income customers. Building off the existing model for weatherization, turnkey delivery will simplify and streamline the customer

experience by supporting customers from project origination to completion with a single vendor managing the multiple steps and subcontractors throughout the process. The turnkey delivery model provides a high level of QA from the design phase through installation and post-work inspection, ensuring that installations perform well, and customers are satisfied with the process and outcomes.

The turnkey delivery approach also allows the PAs to provide instant incentives to the customer, reducing or eliminating out-of-pocket costs and potential incentive fulfillment delays. Finally, turnkey delivery will allow the PAs to control costs for these installations through the development of a PA- and vendor-managed pricing structure. Under this pathway, the lead vendor will collect bids from its network of subcontractors for each portion of the scope. The lead vendor will award work based on factors including equipment selection, technical capabilities, work quality, quoted cost, and LOTE proficiency. This approach will ensure high-quality installations, equitable access for customers, and competitive pricing. While this approach does not reduce program costs, the competitive pricing and vendor oversight will help to minimize the cost of delivering 100 percent incentives for weatherization, barrier mitigation, and heat pumps to moderate-income customers and renters in designated equity communities; an approach which is critical to reducing barriers for these customers. See section 3.1.2: Residential Turnkey Solutions for further details on this new delivery model.

Other residential cost control strategies include:

- Elimination of residential rebates for ENERGY STAR dehumidifiers and room air cleaners, which have achieved high market share.
- Efforts to reduce non-compliant rebate applications by ensuring accurate and complete initial submissions will also help minimize rebate processing fees by avoiding additional processing fees associated with tracking down missing information and reprocessing the invoice.
- The Statewide Contact Center will allow for a streamlined customer experience and enable cost reductions in call center support activities from various program-specific support vendors.
- Negotiation of vendor costs associated with adoption of decarbonization audits and incorporation of DOE Scorecards in the program.

Low-Income Sector Strategies

In the Low-Income sector, the PAs and their partner CAP agencies will manage costs for the Low-Income programs through development and allocation of budgets and goals to HPCs completing work as part of their

Implementation Lead Vendor model. The PAS will also monitor established budgets and goals and manage them in real-time through improved pipeline tracking and visibility.

C&I Sector Strategies

In the C&I Sector, the PAs are pursuing several additional cost control strategies for the 2025-2027 term. Key strategies for this sector include:

- Pursuit of a joint RFP for lead vendors in the Small Business Turnkey offering and the Small Business Customer Directed Option, which will reduce the program cost by minimizing the amount of duplicative work the vendors need to do and support more competitive pricing through economies of scale. By having the vendors bid on both the gas and electric service for a territory, the PAs expect vendors to come in with lower bids compared with a situation in which they were only bidding on one energy service, since their overhead expenses would be spread across more revenue opportunities.
- Design of a new C&I Decarbonization Assessment to cover both electric and gas measures for all sites, thus eliminating the need for duplicate site visits by electric/gas PAs, and with a simple process to capture and report site data.
- Create low-cost prioritization studies for C&I customers to help determine where to focus more in-depth, cost-intensive efforts in the future. Additionally, the PAs are proposing a customer cost share for more in-depth C&I “Master Planning” studies to ensure that customers are truly interested in pursuing such work.
- Require a customer cost share on existing building commissioning studies to ensure that customers are invested in moving forward with the recommendations from the study.
- Phase out of support for non-controlled lighting fixtures for most large C&I customers.

Marketing Cost Control Strategies

The PAs continuously advance their commitment to delivering exceptional marketing value by proactively implementing comprehensive cost-control strategies. In 2024, the PAs took the bold next step in enhancing customer engagement and participation via the consolidation of agencies that support their marketing efforts. These 2024 changes and continued strategic approaches in 2025-2027 are part of the PAs’ ongoing focus on a customer-centric model, ensuring that they not only achieve deeper energy savings but also improve the customer experience while maximizing cost efficiency. With specialized marketing teams and expert agencies, the PAs strategically use resources to drive impactful marketing efforts. Through centralized coordination and data-driven campaigns, the PAs remain agile, making real-time adjustments to optimize outreach and prevent

duplication. This forward-thinking approach allows the PAs to effectively overcome barriers to customer participation, ensuring marketing efforts are precise, targeted, and consistently aligned with the PAs' commitment to deliver high-value outcomes.

The PAs have identified innovative digital marketing strategies to enhance cost control and resource efficiency across statewide marketing initiatives. A key focus is the strategic identification and use of targeted keywords, which will be applied consistently across statewide campaigns, PA-specific efforts, trade ally initiatives, and working group advertising. By leveraging shared keyword lists, the PAs aim to achieve greater precision and improved return on investment in digital advertising, maintaining current expenditure levels while driving higher effectiveness.

In addition to optimizing digital efforts, the PAs are re-evaluating their approach to outreach, particularly with regard to participation in trade shows and other industry events. These events, while valuable, often result in redundant costs related to exhibit space, staff travel, materials, and other logistical needs. To mitigate these expenses, the PAs are adopting a more collaborative approach by purchasing exhibitor space collectively under the unified Mass Save Sponsors banner, wherever feasible. Although certain circumstances may still call for individual participation, the default strategy will be to consolidate efforts, which the PAs anticipate will lead to considerable cost savings without sacrificing the visibility or impact of Mass Save programs.

The PAs' marketing teams are also extending this consolidation strategy to association sponsorships. Rather than responding to individual sponsorship requests, the Program Administrators are working to streamline and unify these sponsorships under a single Mass Save Sponsors umbrella. This effort mirrors the PAs' approach to event participation. While combining sponsorships is not always possible or appropriate, the PAs remain committed to consolidating, wherever feasible, optimizing each PA's marketing budgets. Furthermore, the PAs are exploring the shift from in-person to virtual events, where doing so aligns with the desired audience response and engagement outcomes. For example, hosting virtual events for business and trade allies presents an opportunity for significant cost savings, eliminating expenses for venue rentals, accommodations, catering, and travel. While the PAs recognize that not all events are suited to a virtual format, the Program Administrators are strategically transitioning to online platforms whenever that transition will allow them to best enhance efficiency without compromising an event's objectives.

Evaluation and Market Research Strategies

In the 2025-2027 term, the EMC will continue to build upon budget tracking practices established within the 2022-2024 term, which ensure that the highest priority studies are completed while balancing and tracking the

overall statewide budgets. In addition, as described in the PAs' Strategic Evaluation Plan, there is an increased focus on collaboration with the implementation teams, which will help the evaluation vendors to better develop plans for research and provide for better and faster results with the increased focus on embedded evaluations.



Section 9: Oversight Support

9.1 DOER Assessment

The DOER Assessment represents an annual budget for the agency to help coordinate customer-funded programs for energy efficiency, energy conservation, and ADR programs. DOER assesses the annual budget pursuant to G.L. c. 25A, § 11H, which requires that the allocation of costs to the Program Administrators not exceed the 3.75 percent cap set forth in the statute. For electric PAs, DOER interprets the cap to be the customer costs authorized under G.L. c. 25, §19, including the SBC and the EES, as further defined in D.P.U. 22-150-A and the Energy Efficiency Guidelines at §3.2.1 and §2(12). For gas PAs, DOER interprets that cap to be the annual budget.

9.2 Council Consultants

DOER manages the Council's consultant budget. This budget supports the retention of expert consultants by the Council and reasonable administrative costs, in accordance with G.L. c. 25, § 22(c). The Council must annually submit to the Department a proposed budget for the "retention of expert consultants and reasonable administrative costs." G.L. c. 25, § 22(c).



Appendices

Appendix A: Glossary

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix B: Maps of Service Areas

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix C: Statewide Energy Efficiency Data Tables

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix D: Council's Resolution of December 20, 2023

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix E: Council's Resolution of June 26, 2024

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix F: Program Administrators' August 15, 2024 Response and Matrix

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix G: C&I Technical Assistance Study

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix H: Avoided Energy Supply Components in New England: 2024 Report

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix I: Key Performance Indicators

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix J: Sponsorships & Subscriptions Policy

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix K: PA-Specific Programming

K.1 Residential and School Education (Eversource)

In addition to the statewide education plan, Eversource provides a robust menu of educational offerings through its Residential and School Education program. Eversource recognizes the need to educate future energy consumers to embrace positive energy behaviors and encourage careers in energy efficiency and decarbonization. As such, Eversource strives to provide educators with the tools necessary to teach students positive energy behaviors, provide energy efficiency and decarbonization education, and bring awareness to green career opportunities.

Eversource offers student and educator programming for Grades K-12. Grades K-8 can take advantage of in-class programming and Grades 6-12 can participate in career development workshops. K-12 students can enter the Eversource Challenge and K-12 educators can attend professional development workshops. These educational and entertaining offers teach students to be more aware of their energy habits and to develop positive energy usage habits to conserve and use natural resources wisely. Many of these programs have won national and regional awards for their creativeness and effectiveness. All these programs are science-based learning and align with the Massachusetts Curriculum Frameworks.

Eversource requires all K-12 education offerings in the Eversource Residential and School Education program to introduce the topic of energy efficiency and green careers. Eversource believes informing young students at an early age will reveal opportunities for them to enter energy efficiency or green career pathways. In addition, the program offers a career exploration workshop to middle and high school students to introduce them to green jobs, as well as inform students regarding the path and credentials needed.

All Eversource education offers are inclusive to accommodate all students, educators, and school districts to meet the individual, distinct needs of each student. Programs offered by Eversource to K-12 students include:

Figure 53: Eversource Residential and School Education Programs

Program	Description
K-12 student contest	The Eversource Challenge is a prompt-based student contest for K-12 students to highlight their knowledge on saving energy, energy-efficient technologies, decarbonization, and sustainability. The contest includes challenges ranging from poster making for first graders to developing an

Program	Description
	energy efficiency plan for high school students. The challenge awards first, second, and third place prizes for each grade level.
In-class and virtual programming	Eversource offers both in-class and virtual programming to students in Grades K-8 and offers Wattsville™ to Grades K-2 students to teach them about energy efficiency and the importance of saving energy. The National Theatre for Children offers Grades 3-5 skits featuring a variety of characters and scenes to introduce students to different topics about saving energy and new energy-efficient technologies, and for Grades 6-8 students, Eversource offers EnergyQuest™, an interactive environment experience which gives students the opportunity to become energy investigators to learn more about energy usage and new technologies.
Educator workshops offered statewide with other PAs	Eversource goes beyond the statewide program and offers additional workshops for educators in its electric and gas service territories. These workshops offer curriculum and resources to educators so they can in turn teach the lessons to their students. In conjunction with these educator workshops, many schools throughout the Eversource territory have participated in the NEED (National Energy Education Development) project's Youth Awards program. NEED has recognized several national and regional winners from Massachusetts.
At-home family lessons and activities	During the pandemic, Eversource introduced at-home family lessons and activities for students. Eversource has continued to offer these lessons several times a year so families can work together to save energy and build positive energy behaviors. Examples of family activities include experiments on the benefits of insulation, a vampire load scavenger hunt, comparing several types of lighting, and building solar cookers. Eversource encourages the students to share photos on social media of their families completing the activities. Eversource intends to continue these family lessons for the 2025-2027 term.
In-school events	Eversource works with schools and organizations on a case-by-case basis assisting with energy fairs, STEM (Science, Technology, Engineering, and Math) events, career days, and science days when approached.
Activity workbooks and supplies for school or community events	Available upon request, Eversource offers grade-level activity workbooks (available in English and Spanish) and energy efficiency activities (e.g., a bike that shows the amount of energy needed to produce the light of an incandescent than a LED) to any school or community event.

Eversource's educational offerings also extend to the local community. To educate residential customers, Eversource supplies local libraries with Kill a Watt meter kits for patrons to check out. Using these kits,

customers can explore three types of electric use: plug, lighting, and mechanical. The kits measure and record the amount of electricity consumed by a small appliance. With these meter kits, Eversource provides a booklet that gives tips on reducing energy consumption and costs.

Eversource is committed to collaborating with Massachusetts communities and schools on different ways to enhance education and customer awareness of energy savings opportunities, tips, and new energy-efficient technologies. Eversource encourages students and its customers to take action to ensure they are responsible energy consumers and to ensure that the next generation can make informed energy decisions.

K.2 Residential Behavioral Energy Efficiency (National Grid and Unitil electric)

Unitil and National Grid’s Residential Behavioral Energy Efficiency program (“Behavior program”) is a customer engagement solution that brings behavioral science into the utility customer experience. The program enables customers to get a better understanding of how their household uses energy and how they can make reductions through behavioral changes. This program also aims to educate customers and engage them in next steps toward deeper energy savings through participation in other programs such as the Residential Turnkey Solutions and Residential Rebates programs.

The program uses customer data to create individualized Home Energy Reports to put customers’ energy usage in context, comparing their usage to that of similar households. National Grid will provide participating customers with educational videos that the PA has individualized with data from the customer’s home and general heat pump educational videos to encourage customers to electrify. Customers of both Program Administrators also benefit from high usage alerts to encourage them to curb their energy usage through behavioral changes. Customers of National Grid can participate in a new Behavioral Demand Response program once they have connected their electric meter to the new AMI system.

Program Design

National Grid and Unitil residential customers receive monthly Home Energy Reports showing their energy usage and putting it into context, comparing them to similar sized households. The program encourages customers to take small, behavioral actions (including specific recommendations included in each Home Energy Report) that can lead to meaningful reductions in energy consumption. The program also encourages customers to find out more about Mass Save offerings, serving as educational outreach.

National Grid sends its customers Home Energy Reports out via email along with the customers’ monthly electric and gas bills, which encourages higher opening rates as customers are viewing them while they are

thinking about their energy usage already and may feel more motivated to learn more about how they can save energy and decarbonize. Unitil's customers receive monthly Home Energy Reports by email each month, as well as a mailed printed report every quarter. These reports are a timely resource for customers to reference alongside their electric bill, effectively increasing engagement and awareness of their energy usage patterns.

Educational videos on Home Energy Reports further engage National Grid customers with information about their energy usage, displaying their data reports in a visually engaging way. National Grid gives these year-end videos to customers to summarize not only how much they used compared to similar households, but also how and when they used energy. Due to privacy concerns, National Grid only provides individual data to customers through an automated process and does not share confidential data with third parties.

Customers of both PAs may receive high usage alerts via email when their energy usage has spiked over a one-month period. These alerts help customers to better understand their energy usage and be deliberate about how they use their HVAC system, appliances, and electronics and whether they should make behavioral changes. These reports also alert them to when their utility bills may be higher, so that they can adjust and/or include them in their budget planning.

In the 2025-2027 term, National Grid will roll out AMI technology that will enable customers to have greater control of their energy usage, including during peak times. Following the scaled deployment of AMI (to ensure significant AMI saturation), National Grid plans to launch the Behavioral Demand Response program in 2026. The program is a validated way to directly reduce peak demand using AMI data, behavioral science, and technology at scale. The Behavioral Demand Response program helps customers to better understand when their energy usage happens and how they can proactively make no-cost shifts or reductions in the timing of this consumption during periods of peak system demand by making small changes in their household energy use. The program consists of peak demand reduction with messaging prior to the season, before upcoming peak events, and post event. National Grid will measure the savings via a randomized controlled trial and enroll customers automatically with an option to opt out.

Program Barriers

The program encourages customers to better manage their energy consumption even without making investments in new equipment in their homes, while educating them on further steps they could take toward efficiency and decarbonization by participating in Mass Save programs. Given the potentially short-term nature of any behavioral changes, these initiatives have a limited measure life of just one year. This limits the cost

effectiveness of these programs as currently modeled and means that savings realized through these programs do not contribute to achievement of the PAs' 2030 GHG reduction goals.

[How the Program Impacts Plan Priorities](#)

The Behavior program helps drive customers to other Mass Save programs such as section 3.1.2: Residential Turnkey Solutions, section 3.1.3: Residential Rebates, and section 3.2: Low-Income Sector. Approximately 30 percent of the customers participating in the offer are low or moderate income, though the PAs do not qualify participants based on income. National Grid supplements these reports for customers through heat pump educational videos to help them understand how they can save energy and to encourage them to decarbonize.

[K.3 Residential Behavioral Energy Efficiency \(Eversource\)](#)

Since 2021, Eversource has been sending Delivered Energy Insights to customers in Massachusetts. Eversource designed Delivered Energy Insights to encourage recipients to be more energy efficient by sending digital letters via email with personalized energy usage information and energy-saving tips. Since its inception, the program has been evaluated for savings each year. While the program has shown an increase in savings estimates year over year, the savings estimates have never achieved statistical significance in Massachusetts. Accordingly, the Residential Behavior Core Initiative has claimed zero savings in the 2022-2024 term and is not cost effective. For the 2025-2027 term, Eversource will stop offering the Delivered Energy Insights behavioral offering.

[K.4 Steam Electrification \(Eversource\)](#)

Eversource will support the electrification of customers currently taking service from district steam loops in Boston. Historically, the PAs have not supported energy efficiency measures related to steam loops because the 'upstream' accounts for the gas used to create the steam are special contracts that do not pay into the energy efficiency fund. However, the 'downstream' customers using the steam do pay into the electric fund via their individual electric accounts, and therefore Eversource will support decarbonization efforts at these customers sites, including but not limited to the implementation of heat pump technology.

[K.5 Localized Decarbonization Approaches \(Eversource\)](#)

Eversource will support enhanced delivery of decarbonization measures in specific geographic areas impacted by electric or gas infrastructure upgrades, including projects covered under the Integrated Planning Approach described in Eversource's Electric Sector Modernization Plan. This support may include support for provision of "turnkey" delivery of certain decarbonization measures, or support for dedicated decarbonization positions

within municipal government, for example. Eversource is continuing to examine the needs of the impacted communities and will work with community stakeholders to design and refine the best fit approach.

K.6 Cape and Vineyard Electrification Offering (Cape Light Compact)

The Cape and Vineyard Electrification Offering (“CVEO”) is the Compact’s comprehensive strategic electrification and energy optimization offering that combines home weatherization from the Compact’s historically successful energy efficiency programs with the following technologies: (1) cold climate air source heat pump (heat pump), (2) battery storage, and (3) solar photovoltaics. On January 11, 2023, the Department approved the offering in Cape Light Compact JPE, D.P.U. 22-137, with a supplemental budget stamp approval from the D.P.U. on April 6, 2023. The Department approved the CVEO as a demonstration offering pursuant to Section 87A of An Act Driving Clean Energy and Offshore Wind, St. 2022, c. 179.

Through CVEO, the Compact proposed to serve 100 low- and moderate-income customers with a budget of approximately \$6.1 million for implementation during the 2023-2024 Plan years. Since the Department’s approval, the Compact has diligently pursued implementation of CVEO. The Compact has enrolled 90 participants in the offering for an initial CVEO site assessment. The Compact expects that 52 enrolled participants will begin installation of their respective CVEO technologies by the end of 2024. However, not all enrolled participants in CVEO will have completed their installations by the end of 2024.

The Compact is proposing to complete the CVEO demonstration offering during the 2025-2027 term within the Department budget approved in D.P.U. 22-137. For additional details on the Compact’s proposal for CVEO during the 2025-2027 term, see the Compact’s supporting testimony.

Appendix L: Technical Reference Manual

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix M: MassCEC Equity Workforce Funding Levels (FY25-FY27)

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix N: Potential Studies

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix O: Vendor Cost Categories

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix P: Resolution of the EEAC Regarding the 2025-2027 Three-Year Plan EM&V Principles and Policy, adopted July 17, 2024

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix Q: Programs and Marketing

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix R: Performance Incentive Model

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Appendix S: Strategic Evaluation Plan

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix T: Evaluation Study Summaries

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix U: Evaluation Studies

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Appendix V: EEA Secretary's Greenhouse Gas Goal Letter, March 1, 2024

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>

Appendix W: Council's Resolution of October 23, 2024

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Appendix X: Market Transformation Program Theories and Logic Models

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Appendix Y: Alternative Scenario from EEA Secretary's GHG Goals Letter

See <https://richmaylaw.sharepoint.com/:f:/s/25-27Three-YearPlan/Ep4GF8IYyUJBISjLxCVz8gBm7tklZ0-DtCkqdTcP2amMg?e=bBexnb>



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