

No Steps Back: Energy Equity Target Development in Massachusetts

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ABSTRACT

Tired of “two steps forward, one step back,” stakeholders have increasingly advocated for equitable outcomes for those historically underserved by energy efficiency programs. In Massachusetts, two nonparticipant studies confirmed stakeholders’ concerns that certain populations participate at rates lower than average. Equipped with this information, the Energy Efficiency Advisory Council (EEAC) convened an Equity Working Group (EWG) to seek stakeholder feedback and develop programmatic recommendations for consideration by the EEAC to expand participation. However, programmatic changes alone can be insufficient for realizing desired outcomes. The goals, metrics, and performance incentives of utility programs must be aligned with equity to help underserved customers invest in and benefit from low-cost energy efficiency. Therefore, policymakers should be concerned with changing the measures of success to align with and support program administrator investments that prioritize historically underserved populations.

Working collaboratively and inclusively, EWG developed energy equity targets to shift investment priorities to focus on moderate-income customers, renters, language-isolated populations, and small businesses. Targets for complementary efforts such as enhancing community partnerships and workforce development were also developed to aid in reaching diverse populations. Progress toward targets will be publicly reported to ensure greater accountability and transparency into the commitments and investments made by the program administrators.

This paper presents the process and results of equity target development during the Mass Save® 2022-2024 Three-Year Energy Efficiency Plan planning process, and explores the challenges and opportunities faced when designing targets. We provide lessons learned — including concerns, successes, and insights — and best practices for developing equity-specific targets.

Introduction

Over the past 20 years, ratepayer funds directed toward energy efficiency programming in Massachusetts have steadily grown to over \$1 billion per year in a state with approximately seven million residents. The statewide energy efficiency program, branded as Mass Save®, is implemented by Massachusetts’ natural gas and electric utilities and associated energy efficiency service providers (collectively, the program administrators). As directed by the state legislature, the program administrators develop program investment plans every three years with input and

oversight from a state-appointed Energy Efficiency Advisory Council (EEAC). The electric and natural gas investment plans must comply with various state mandates, which require them to provide a wide range of services, incentives, training opportunities, and informational resources to promote energy efficiency. From 2010 to 2019 Massachusetts was routinely recognized by ACEEE's *State Energy Efficiency Scorecard* for its robust statewide energy efficiency offerings. The utility programs have been recognized as high performers for achieving significant energy savings as a result of their program interventions. Historically the ACEEE scorecard has examined state initiatives for their ability to achieve energy savings and greenhouse gas emissions reductions, but now there is a greater focus on reviewing these policies and programs through an equity lens. As energy savings dwindle from easy-to-reach populations, reaching underserved populations becomes ever more imperative if states and utilities are serious about reaching their climate goals and doing so equitably. For Massachusetts to maintain its positive trajectory, program administrators will need to place a greater emphasis on reaching nonparticipants who have been unable to access the energy and non-energy benefits of efficiency programs.

Though both program participants and nonparticipants benefit from energy efficiency programs (e.g., indirect benefits of system-wide savings and reliability enhancements, in addition to direct program benefits for participants), today, one best practice is to ensure equitable and meaningful participation opportunities for all utility customers. Programs in Massachusetts are supported by ratepayers through the collection of the system benefit charge, which is collected to promote energy efficiency. Investments made using the system benefit charge are returned to the customer through energy-efficiency measures, programs, services, incentives, and rebates. Considering that all ratepayers contribute to the programs, they should all be able to access the benefits. The Massachusetts Green Communities Act of 2008 mandates that electric and gas program funds be allocated on a proportional basis by customer class including minimum allocations dedicated to the low-income sector.¹ This provision has been successful in securing access to energy efficiency programming for low-income households, and typically due to demand and need, program administrators have made additional investments beyond the state required minimums. However, this policy does not effectively address non-income related participation barriers. In addition to market barriers, many ratepayers face social and cultural, institutional, behavioral, and political and regulatory barriers. Overcoming these barriers requires nuanced program design and flexibility to meet the unique needs of households and businesses across the Commonwealth. Reaching these underserved communities has the potential to unlock sizeable energy savings. Targeting underserved populations will become increasingly important as savings from easy to reach sources dwindle.

¹ In Massachusetts, energy efficiency program funds are allocated to three sectors: residential, commercial & industrial, and income-eligible.

Background

The Massachusetts Green Communities Act of 2008 established the EEAC, which works in coordination with the program administrators to achieve energy, climate, and environmental goals through a sustained and integrated statewide energy efficiency effort.² The EEAC establishes priorities, which the program administrators use to inform their integrated statewide energy efficiency investment plan. Over the years, the EEAC has set priorities focused on increasing participation by, and savings from, diverse populations and geographic communities. The Massachusetts program administrators have employed a variety of targeted and broad market strategies to better engage with varied populations, and as a part of the planning process for the 2019-2021 Three Year Energy Efficiency Plan, the program administrators committed to offering enhanced strategies and community outreach to increase participation and savings among underserved populations and communities. To better understand current performance, the program administrators commissioned two studies in 2019 to develop deeper knowledge of the characteristics of nonparticipants of the Mass Save programs and investigate barriers to participation. These studies used both quantitative and qualitative research methods to assess the relationships between participation rates and select customer characteristics and the unique market barriers that prevent customers from participating. These studies confirm what many program equity advocates had known for a long time – program participation is negatively correlated with customers who identify as renters, moderate-income, English-isolated, and small businesses. These studies uncovered that nonparticipants are more likely than participants to rent their homes; be a low- to moderate-income household; speak a language other than English; and live in multi-unit buildings, which is consistent with other energy efficiency research on hard-to-reach populations.

Equity Working Group Process

In response to these studies, the EEAC voted to convene a working group that would focus on identifying innovative solutions for better reaching underserved populations and geographic communities. The working group would provide a forum for collaborative problem solving that would focus primarily on removing barriers to enable equitable program participation.³ Key considerations were made to ensure the EWG would include diverse perspectives and representatives from the EEAC including program administrators. While several members of the EWG belonged to or worked with disadvantaged communities and underserved populations, there was recognition early on that the EWG was not wholly representative of the target non-participant populations (i.e., moderate-income households, renters and landlords, English-isolated households, and small businesses) the group was aiming to address. The EWG made an effort to include two community stakeholders as full members of

² As directed by the Green Communities Act of 2008, the EEAC reviews and approves the jointly prepared statewide energy efficiency investment plan before it is submitted to the Department of Public Utilities for final approval.

³ It's important to note that the primary focus of the EEAC's effort was to approach the investment planning process with an equity lens with the understanding that the group's role over time would shift to addressing implementation challenges and opportunities once the Plan was approved by the Massachusetts Department of Public Utilities.

the EWG to add new perspectives that would prioritize the concerns of non-participant populations including environmental justice (EJ) populations.

The early meetings of the EWG primarily revolved around process related discussions. The goal of these discussions was to develop a shared understanding for group governance (e.g., meeting frequency, agenda setting, participating representatives) that could lead to community-driven decision-making. The EWG chose to adopt many of the administrative procedures that were in use at the EEAC, however there was at least one key difference compared to past problem-solving efforts led by working groups of the EEAC. In this setting the EWG aimed to redistribute power in the decision-making process. Program administrators wield significant power during program design, and it's not often that they yield power to the community in a way that unlocks collective power and capacity for transformative solutions. This groundwork was essential for establishing shared responsibility and accountability throughout the process.

One challenge of jumping into equity focused work is that there is much work to be done, which can feel unmanageable for the people tasked with creating change. Inequities have existed for decades in the energy efficiency programs and addressing them will take significant time, effort, and resources. The EWG acknowledged early on that this effort would be the beginning of a long-sustained equity effort; boundaries were set by the EWG to focus on the priority populations identified in the non-participant studies as well as two mutually agreed upon complementary strategies: *community partnerships* and *workforce development*. Choosing to set these boundaries enabled the EWG to devote its energy to addressing the issues identified in the non-participant studies first while recognizing that there would be ongoing work to address other equity concerns.

Fostering Community Input

Community engagement was an integral component of the EWG's work. The EWG's view was that if stakeholders could play a meaningful role in the discussion of projects and programs that affect them, the working group process would be more likely to create effective solutions that would be supported by a broad stakeholder group.⁴ However, participating in a working group requires a significant investment of resources and not all stakeholders are equipped to participate equally. Stakeholders may feel disenfranchised from past participation in public stakeholder processes and may be uninterested in participating in the latest planning process particularly if there have been only minimal efforts to rebuild trust. In the future, a redesigned EWG might shift from taking a reactive approach that focuses on immediate issues to a more proactive process which aims to effectively address more structural issues. This long-term approach would give affected stakeholders greater agency in designing solutions that meet their needs rather than requiring them to become intimately familiar with the minutiae of the programs in order to meet regulatory deadlines.

Community engagement has long been a useful tool for influencing decision-making processes. The EWG hosted several topic-based focus groups to solicit direct input and feedback

⁴ In this context we define stakeholders as individuals, communities, or organizations who are impacted by or invested in the programs.

on some initial ideas the group had developed.⁵ Focus group participants were invited based on past involvement with the EEAC (e.g., public commenters) and recommendations from EWG members. Due to time-sensitive nature of the planning process, this minimal outreach resulted in a limited focus group participant diversity. A majority of the participants involved in the focus groups had at least some basic understanding of the programs. Stakeholders must be informed and educated on the issues at hand for them to be able to meaningfully participate in the decision-making process. The EWG identified broader canvassing efforts as being essential to reaching a greater number of impacted and interested individuals and communities who may not be aware of the programs.

Focus group topics included the four underserved customer categories (i.e., renters, moderate-income customers, English-isolated populations, and small businesses) as well as community partnerships and workforce development, which were viewed as complementary strategies to support greater participation among underserved populations. The focus groups were useful for understanding and mapping the needs, opinions, and interests of nonparticipant populations. Often these this exercise identified practical, effective, and common-sense solutions that were useful for shifting working group members' perspectives. For example, a representative of a landlords' association shared that property owners were more interested in highly visible measures, like new toilets, since they perceived those types of measures to have a greater impact on tenant satisfaction and generally provide a good return on investment to the owner(s) compared to less visible energy efficiency measures. Although energy efficiency is a smart economic investment, it isn't always an enticing option to consumers. In this specific example the EWG learned that potentially promoting energy efficiency measures along with other sustainability measures (e.g., water conservation measures such as toilets) could have a more tangible impact on consumers' lives and lead to greater program participation. This example illustrates the need for including and empowering diverse perspectives to inform the decision-making process. While measures for the 2022-2024 Three Year Plan have already been decided upon by program administrators, the EEAC and EWG have agreed that ongoing discussions on Plan delivery are needed throughout plan implementation.

Program issues are rarely static, therefore designing a flexible community input process is vital for addressing new challenges as they arise. The dynamic community input process empowered the EWG to continue advocating for change even after drafts of the Plan had been submitted. It is customary for the Plan to evolve over time until its final submission to the Department of Public Utilities; and it's possible that even after the Plan is submitted for approval by the regulators, that there could still be changes mainly in the implementation details of the Plan. Plainly speaking, Plan development is an iterative, but not always transparent, process. Considering how substantial the Plan is in terms of its breadth of topics, it can be extremely difficult for stakeholders to maintain in-depth knowledge of evolving issues. The EWG viewed its responsibility in its role as facilitator and collaborator to advocate for the key concerns that stakeholders had raised both before and during the 2022-2024 planning term. Throughout the planning process stakeholders had stressed the following in response to an initial draft of the Plan:

⁵ Due to the COVID-19 pandemic all meetings including focus groups of the EWG were hosted virtually.

- Additional quantitative and qualitative details, clarity, and transparency are needed throughout the Plan document to ease concerns about the achievability of and strategies for reaching the equity goals specified in the Plan.
- Numerical targets and metrics are essential to assess progress on equity priorities throughout the Plan document. Relying on EM&V studies that are completed years later is insufficient for measuring progress throughout plan implementation and making necessary adjustments earlier rather than later.
- Budgets should be clearly articulated for equity initiatives and commensurate with the needs of underserved communities (e.g., environmental justice communities) and customer groups such as moderate-income customers, renters and landlords, language-isolated populations, and small businesses.
- Enhanced communications are needed to ensure that customers, contractors, municipalities, and more are aware of the program offerings available and can effectively communicate those offerings to their peers and ratepayers.
- The climate benefits of electrification should be more accessible to all residences and businesses interested in participating in the program.

Target Development Process

Setting key performance measures is critical for measuring progress towards an intended goal. This was an especially important step following the development of the EWG’s initial recommendations, which were generally broad and only signaled directional increases or decreases on certain metrics, rather than specifying levels of change. By applying numerical targets, the EEAC would be better equipped to measure progress against established baselines. In addition to data provided by the program administrators, the target development process was informed by expert research completed by the EEAC consultants. Initial research identified the Energy Trust of Oregon (the Trust) as a potential model for equity target development. Since 2017, the Trust has used a Diversity, Equity, and Inclusion (DEI) Plan to guide its practices and processes to achieve more inclusive and equitable outcomes, and the Trust continues to update its DEI plan. The Oregon Public Utilities Commission applies annual diversity, equity, and inclusion performance metrics to the Trust and these metrics are updated on an annual basis. In addition, progress towards these metrics is publicly reported on an annual basis, ensuring transparency and accountability. Examples of targets can be found in Table 1. The target development process in Massachusetts was modeled after some of the best practices identified during the Energy Trust of Oregon’s DEI metrics development process. A key valuable lesson that the EWG adopted from the Trust was that with metrics you must start somewhere and that over time they can always evolve.

Table 1. Energy Trust of Oregon equity metrics 2020, 2021, and 2022

2020 Energy Trust DEI metrics	2021 Energy Trust DEI metrics	2022 Energy Trust DEI metrics

Implement the data enhancement project as outlined in the 2020 Budget and Action Plan and deliver a minimum of four reports to the Diversity Advisory Council	Implement a supplier diversity tracking system as outlined in the 2021 Budget and Action Plan	Achieve savings and renewable generation goals while addressing the needs of customers who experience significant energy burden or are impacted by disaster events
Implement and publish the "DEI Lens" project as outlined in the 2020 Budget and Action Plan and approved by the Diversity Advisory Council	Develop a trade ally dashboard to track diverse spend in trade ally activities with stakeholder participation	Expand support for community-led approaches to increase access to clean energy
Complete 1,000 projects with trade allies that are minority-owned businesses in 2020	Complete implicit bias training for all hiring managers	Create development capabilities that will allow us to increase funding to deliver more savings and generation and expand our ability to meet changing customer and utility system needs
Implement a rural-focused workshop as outlined in the 2020 Budget and Action Plan	N/A	Implement new work strategies to adapt and thrive in our changing environment while supporting staff and managing operating costs

The energy equity targets in Massachusetts were developed by the EWG in a collaborative forum with participation from EEAC members, utility program administrators, EEAC consultants, and additional public stakeholders representing the concerns of EJ populations. Targets were designed by prioritizing the outcomes the EWG believed would lead to enhanced program participation. For each category, multiple strategies were proposed to achieve the intended outcomes. Feedback from stakeholder groups was incorporated throughout target development rather than presuming to know which interventions might successfully lead to equitable outcomes. After several rounds of proposals and counterproposals a data-driven final proposal was presented to the full EEAC for its consideration. While many of the targets include a traditional approach to measuring progress – e.g., increase participation by x% over baseline – several included outcome goals that are essentially task-oriented commitments. In most instances, this compromise was made as acknowledgement that more work needed to be done with assessment and program design before more quantitatively measurable targets could be specified.

As a group, the EWG targets were designed to increase transparency, measurability, and accountability as the program administrators moved to implement new strategies to increase participation among underserved populations and geographic communities. The targets were developed to track and measure progress toward clearly defined goals and reported in a way that would allow stakeholders to understand what program interventions are working well and which are not working well. By increasing transparency, the program administrators would be

encouraged to course correct when issues arose and continue to collaborate with stakeholders to improve their operations as new strategies and innovations are tested. Table 2 presents the key strategies and intended outcomes by category for the equity targets developed by the EWG. It also generally describes the equity targets. We, the authors of this paper, have elected not to indicate the specific target amounts in recognition that each jurisdiction will have its own unique circumstances that will inform the specific target numbers chosen.

Table 2. Key strategies and intended outcomes of 2022-2024 equity targets in Massachusetts

Category	Strategy and Intended Outcome	Target(s)
Environmental justice	Identify a selection of municipalities with historically low participation where there is at least one Census block group meeting an EJ criterion to target program investments and increase participation	Increase financial investments and participation in EJ communities in comparison to prior terms
Workforce Development	Train 120 young adults for clean energy pathway careers with at least 90 students identifying as women or people of color to increase workforce diversity and better serve historically underserved populations	• Study workforce disparities • Complete training commitments • Track and report contracts with M/WBEs • Conduct workshops and targeted outreach to M/WBEs
Partnerships	Establish community partnerships and provide dedicated resources to selected municipalities in effort to reach and increase participation by historically underserved populations	• Form partnerships in specific percent of EJ communities • Track and report participation by underserved populations and program investments in partnership communities
Renters	Increase renter unit participation by developing a strategic renter engagement plan that goes beyond instant-savings measures to focus more on securing significant energy and greenhouse gas emissions savings	• Increase renter unit participation each year by increasing amounts compared to established baseline • Separate target established for attached low rise units
Moderate-income	Increase meaningful program participation by moderate-income customers by streamlining participation and introducing new enhanced incentives	Increase weatherization and heating equipment installations by a year over year amount compared to established baseline
English-isolated	Increase participation among English-isolated customers by offering energy audits and other program services in most frequently spoken languages	• Develop a language access plan • Increase number of audits and weatherization jobs by people speaking English and

	other than English	Portuguese • Provide audits in Mandarin, Cantonese, and Haitian Creole by end of plan term
Small business	Increase small business weatherization participation through targeted community outreach	Install specified number of small business weatherization units, increasing each year

Key Takeaways from the Target Development Process

The target development process was a valuable and needed exercise because it provided insight into both the challenges and opportunities for creating equitable program outcomes. Targets are key for assessing progress towards larger overarching goals. However, identifying the right targets within a world of unknowns is difficult. Finding balance in the target-setting process is critical to avoid “paralysis by analysis” particularly when there are so many perspectives to be considered. The following are more detailed takeaways from the target development process:

Target Frameworks Can Be Limited by Data Collection Protocols

Program administrators may not track demographic data that could be useful in identifying populations that have historically been underserved. There may be a reluctance by program administrators to capture demographic data due to customer privacy concerns, but demographic data collection has been completed before by third-party evaluators in New Jersey (DNV GL 2020). In addition, tracking program participation by demographic characteristics in upstream or midstream program delivery models can be challenging with current practices. With this information in mind, the EWG recognizes the challenges of accurately tracking program participation for underserved populations among various programs. Due to the difficulty in tracking data, this can present itself as an issue later on when there is interest in understanding numerical baselines for proposed targets. Ultimately, compromises were developed to agree to final baselines for benchmarking progress.⁶

Setting Goals Can Be an Objective Exercise Affected by Subjective Influences

The desire or ability to pursue difficult but achievable goals can vary greatly among stakeholders, especially when some stakeholders may be held accountable for program failures even if they view themselves as having limited influence over target populations’ motivations and ability to participate. Even though target development is informed through data, personal opinions and biases can greatly influence what the agreed upon goals ultimately become. Target setting is a vulnerable practice as it often exposes weaknesses in program design and governance. Due to the heightened visibility of equity-focused efforts, program administrators

⁶ Baseline development was primarily the responsibility of the program administrators since they had unique access to program data. However, new metrics required developing a more nuanced understanding of current baselines, which was underway during the plan submission process and would be presented to the Council at a later date.

who are responsible for program performance may be reluctant to participate in target setting if they feel that they cannot reasonably meet those targets. But targets are necessary to track progress and promote change, and the practice of target setting must start somewhere. Therefore, stakeholders involved in target design should recognize and support a target design process that engenders a sense of community ownership over the process and encourages a broad range of stakeholder to be involved.

Identifying the Right Targets for Making Progress Towards Equitable Outcomes Can Be Filled with Unknowns

Choosing metrics that will lead to desired outcomes can be challenging because interventions have both intended and unintended outcomes. For example, increasing the incentive value for electrification measures like heat pumps could support an increase in program participation by moderate-income customers. However, an unanticipated outcome may be that energy burdens for moderate-income households increase as a result of the increased electric load. While in this example an electrification target may be good in achieving climate goals, it can have negative impacts elsewhere. This example illustrates that more nuanced solutions are needed to achieve goals that are in conflict with one another under the current system. Good target design is challenging, but targets can be designed such that they achieve mutual objectives like reducing GHG emissions and energy burden, if a nuanced approach is taken to ameliorate negative outcomes.

Target Investments and Shareholder Performance Incentives

The 2022-2024 Three Year Energy Efficiency Plan represents an investment of nearly \$4 billion. The EWG was interested in carving out a substantial portion of the overall budget to target underserved populations. The EWG was concerned that setting goals without ensuring adequate budgets would lead to failed initiatives that would do little to create more program equity. For the program administrators to be successful, they would need to be supported by robust investments that would enable them to implement the programmatic changes needed to achieve the agreed upon equity targets. Creating a budget for equity-focused initiatives proved to be challenging since program budgets have been historically based on past program participation. However, because program participation had not previously been tracked by specific equity defined initiatives there was a lot of uncertainty developing budgets for the newly defined program efforts. Establishing these budgets required creative problem-solving to put the equity-focused investments into context with the larger program investments planned over 2022-2024 plan term. In many cases, these new budgetary line items were creatively approximated from existing budgets. For example, serving English-isolated populations would not be considered its own separate budget initiative, but program support for that target population could be derived from investments in non-English marketing. Even though this was an imperfect method it still proved useful for providing estimate of the impact of equity-focused investments.

However, shifting priorities alone can be insufficient for shifting action. Reaching non-participants can be expensive; and it will likely impact the utility shareholders' bottom line. Even if underserved populations represent a reservoir untapped savings, there may be little interest in

serving these populations if less expensive savings can be achieved. Performance incentives are valuable for changing program administrator behavior because they attach financial reward to achieving established targets (Whited, Woolf, and Napoleon 2015). Redefining utility performance incentives including the underlying governance structures is necessary for promoting equity. Historically, Massachusetts shareholder performance incentive has been focused on acquiring cost-effective efficiency at the lowest cost. While this is important, too much focus on costs without a shareholder performance incentive mechanism that is structured to reward and drive investments in disadvantaged communities and underserved populations will work against achievement of equity targets.

Conclusion

While the last two years of activism and conversations have focused on addressing systemic racism and inequality across most industries, the concern regarding inequity in energy efficiency programs are much older; advocacy for energy efficiency program equity has a long history in Massachusetts. Community leaders and environmental justice activists in Massachusetts have asserted for years that low-income communities and communities of color have been underserved by energy efficiency programs. These communities also have higher energy burdens, have less access to living-wage job opportunities in the energy efficiency industry, and typically shoulder the burden of environmental impacts. Given our experience with advancing the EWG, we recognize that effectively addressing inequity in energy efficiency programs will take time and requires strategic and actionable goals for measurable progress. To meet these challenges and serve all customers equitably, decision-makers will need to shift their priorities from focusing solely on achieving all cost-effective energy savings to a people first approach that centers the needs of affected communities. We understand that making these changes will be challenging and place new burdens on program administrators but committing to energy equity benchmarking and new metrics will improve energy service delivery and create better processes, systems, and outcomes for all.

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