

DRAFT - Massachusetts Energy Efficiency Advisory Council Resolution Regarding the April 30th Draft of the 2022-2024 Energy Efficiency Plan

Adopted July XX, 2021

1. Introduction

The Energy Efficiency Advisory Council (EEAC or Council) is charged with reviewing the Massachusetts Program Administrators' (PAs) draft Statewide Electric and Gas Energy Efficiency Plan (the Draft Plan), submitted to the EEAC on April 30, 2021.¹ Having reviewed the Draft Plan, the Council provides the following comments to the PAs. The Council commends the PAs on their past energy efficiency achievements and specifically acknowledges the PAs' efforts to maintain Mass Save[®] Program activity during the COVID-19 pandemic, while implementing health and safety protocols for the protection of customers and contractors. The Council looks forward to building on the historic success of the Mass Save programs in the next plan. The Council is committed to supporting a transformational plan that meets the challenge of the greenhouse gas (GHG) emission reductions needed in the Commonwealth to combat the effects of climate change, and addresses historical inequitable program participation through significant changes in approach to planning, program design, and implementation.

In its March 24, 2021 Resolution (March Resolution), the Council put forth its priorities and recommendations for the 2022-2024 plan which were developed through an extensive stakeholder engagement process including nine public comment sessions, six Council workshops, and establishment of an Equity Working Group, convened to specifically address issues of equity in the delivery of energy efficiency programs. The March Resolution set an expectation of an innovative and forward-looking plan, with a focus on alignment with GHG emission reduction and electrification goals, equitable program delivery and participation, and workforce development investment. On March 26, 2021, Governor Baker signed legislation that codified the administration's commitment to achieve net zero emissions in 2050 and furthered the Commonwealth's nation-leading efforts to combat climate change and protect vulnerable communities. Chapter 8 of the Acts of 2021 - *An Act Creating a Next Generation Roadmap for Massachusetts Climate Policy* (the Climate Act) establishes new mandates for economy-wide emissions reductions by 2030 and 2040, and significantly increases protections for Environmental Justice communities across Massachusetts. The Climate Act also directs the Secretary of Energy and Environmental Affairs (EEA) to set a GHG emissions-reduction goal for the Three-Year Energy Efficiency Plans, requires the social value of greenhouse gas emissions to be included in the cost-effectiveness calculations for all measures excluding fossil fuel heating and hot water systems, allows a mechanism to prioritize projects that reduce greenhouse gas emissions, ~~and~~ expands the mandate of the Department of Public Utilities ([Department](#)) to prioritize equity and greenhouse gas emission reductions in its decisions, ~~and directs the Program Administrators to transfer \$12 million annually to MassCEC for a clean energy equity workforce and market development program.~~

The Council's priorities for the 2022-2024 Energy Efficiency Plan are underscored by the provisions of the Climate Act. The Council is pleased that the PAs have adopted these priorities as pillars of the April Draft Plan. While the Draft Plan generally adopts these priorities, there is insufficient detail on program design to assess whether the programs will achieve these priorities. Further, the Council does not see all of these priorities reflected in the proposed budgets, savings goals, and measure-mix in the benefit-cost models. In general, savings goals are below the potential identified by the PA's potential studies, and

¹ G.L. c. 25, §21(c).

significant incentives remain focused on fossil fuel equipment. Detailed budgets and metrics supporting equity priorities were not included, except for moderate income.

The Council looks forward to continuing collaboration and exchange of information among the PAs, the EEAC, its Consultants, and interested stakeholders throughout the summer and fall. The Council respectfully requests the PAs to continue to work with the EEAC and its Consultants to refine and improve the Draft Plan, through timely interim updates that respond to this Resolution. The Council requests a Revised Plan with benefit-cost models no later than September 1st, leading to the Final Plan to be filed with the Department in October. In the spirit of collaboration, the Council provides the following comments on the Draft Plan in its role in shaping a Final Plan that merits the support of the EEAC.

Benefits, energy savings, greenhouse gas emissions reductions, equity targets, budgets

The Council expects the savings goals, benefits and budgets in the Final Plan to adequately reflect the opportunity that exists as Massachusetts pivots to the future of energy efficiency programs through electrification, existing building retrofits and decarbonization, weatherization, workforce development and enhancing support for historically underserved communities and customers. The Council appreciates that the Draft Plan adopts the strategic priorities recommended by the Council in its March Resolution for the next term. In order to fully reflect the Council priorities and meet the requirements of the Green Communities Act and the Climate Act, the Final Plan must include updated benefits, savings goals, and budgets. The updates should be designed to achieve aggressive goals for equitable program outcomes and deliver cost-effective energy savings that align with the Commonwealth’s GHG goals and comply with the GHG reduction goal set by Energy and Environmental Affairs (EEA) Secretary Theoharides on July ~~XX~~¹⁵th, 2021².

The Council expects the Final Plan to reflect the following:

- GHG reduction goals that comply with that set by EEA Secretary Theoharides including details on how the Plan will achieve the statewide goals and sector-specific breakdown set forth in the Secretary's letter and the table below. The EEAC expects the Final Plan to include specific commitments for greenhouse gas reductions attributable to low and moderate income.

	Electric Program 2030 Cumulative Annual Emissions Reduction (metric tons of CO₂e)	Gas Program 2030 Cumulative Annual Emissions Reduction (metric tons of CO₂e)
Residential (excluding Moderate Income)	296,000	142,000
Income Eligible & Moderate Income	55,000	49,000
Commercial & Industrial	153,000	150,000

- Specific, measurable targets to increase investments in and benefits delivered to historically underserved customer groups, including moderate income, renters, English-isolated customers, small businesses, and Environmental Justice communities.

²PLACEHOLDER <https://www.mass.gov/doc/greenhouse-gas-emissions-reduction-goal-for-mass-save/download>

- A minimum of 120,000 cold-climate heat pumps installed in the 2022-2024 Plan, including retrofit and new construction. This should include at least 50,000 fuel switching heat pumps and 7,000 heat pumps for low income customers, and increasing targets year over year for whole-building conversions.
- Specific details and commitments of the PAs' to invest and transform the market for heat pump technologies.
- Reductions in fossil-fuel heating and hot water budgets included in the April Draft, including a \$15 million shift of income-eligible fossil-fuel equipment budget to electrification, to support heat pump equipment where such equipment is technically feasible, will not increase a customer's energy burden, and electrification for end-of-life gas equipment.
- A minimum of 4,100,000 MMBtu of delivered fuel displacement from C&I heat pumps, with at least 1,400 small C&I customer participants.
- Budget increases to support greater electrification efforts for space heating and hot water, including an additional \$150 million for the Residential sector and \$50 million for Income Eligible.
- 240 MW (150 MW from the C&I sector, 80 MW from Residential, and 10 MW from Income Eligible) of energy storage capacity enrolled in active demand management offerings and specific goals in the Final Plan for income-eligible storage by 2024.
- Increase investments in Commercial & Industrial electric and gas programs at or above the 2019-2021 plan levels, with a correlated increase in benefits. Re-allocate no less than 50% of the proposed C&I lighting spending (~\$133M of incentives) to longer-lived and more GHG impactful measures such as HVAC, envelope and fuel switching as identified in the PAs market potential studies.

Stakeholder Support

Throughout the 2022-2024 Plan process to date, the Council has prioritized stakeholder feedback and suggestions through nine public comment sessions and on-going opportunity to submit written comments.³ Public comments were carefully considered when developing the Council priorities for the 2022-2024 Plan. Additional stakeholder feedback regarding the Draft Plan has been incorporated into the Council's feedback in each topic area below. The public is calling for a transformative plan that addresses the need for substantial GHG emission reductions, while also targeting program offerings to better serve historically underserved populations.

The Council urges the PAs to incorporate stakeholder feedback into the Final Plan and particularly the public comment regarding the Council's priorities: Alignment with Massachusetts GHG reduction goals, Workforce Development and Equitable Program Delivery.⁴

2. Council Response to Priorities

In its March Resolution, the Council set specific priorities for the 2022-2024 Plan that support continued robust energy efficiency, while ensuring that goals are met equitably and cost effectively.⁵ The Council urged the PAs to develop a plan that includes aggressive GHG emission reductions to support the Commonwealth's goals through a strong focus on weatherization and electrification, with significant

³ To date, the Council has received over ~~100~~300 written public comments.

⁴ <https://ma-eeac.org/public-comment/>

⁵ https://ma-eeac.org/wp-content/uploads/FINAL-EEAC-Priorities-Resolution_Adopted-3.24.2021.pdf

expansion of heat pump targets and an investment in market transformation and workforce development. The Council also indicated that the Final Plan should include a strong commitment and investment in equitable program delivery by increasing participation from renters/landlords, moderate income customers, language-isolated customers, Environmental Justice communities, and small businesses. To support the Final Plan, the Council requests that both the narrative and data support the three foundational principles of GHG emission-reductions, equitable program-delivery, and workforce development. The Council provides the following expectations on how these priorities must be addressed in the Final Plan:

Greenhouse Gas Emissions Reductions

Meeting the Climate Act's 2050 Net Zero limit and 2030 limit of at least 50% reduction from 1990 will require a significant increase in the scope and scale of building retrofits, through a focus on envelope improvements and efficient electrification. The Council expects that the 2022-2024 Plan will include a phase out of lighting and fossil fuel incentives as set forth in the March Resolution and below, and increased investments in insulation, electrification of existing buildings, all-electric new construction, and deeper custom building retrofits. As mandated by the Climate Act, the Council expects the Final Plan to maintain the current social value of GHG emissions reductions for all measures, and remove [the social cost from calculations of cost effectiveness](#) for conversions from fossil fuel heating and cooling to fossil fuel heating and cooling.

Equity

The 2022-2024 Plan must address equity in a deliberate and inclusive manner, [which addresses the historical under-participation of underserved customer groups](#). The PAs have proposed [creativesome](#) solutions, and the Council urges the PAs [to continue](#) to develop new innovative approaches that better serve customers, including substantial support for complementary efforts such as workforce development and partnerships. [The Council expects the PAs to address equity in all areas of program design, implementation and evaluation](#). To ensure success, the Council expects that the Final Plan will incorporate details for targets and metrics that will be used to measure progress towards equity goals. This includes commitments to detailed tracking and frequent reporting of data related to equity goals.

The Council also expects that renters/landlords, moderate-income customers, and English-isolated customers, are included equitably in GHG reduction efforts in the 2022-2024 Plan. The Equity Working Group has reviewed the Draft Plan and provides its detailed comments on the Plan in Attachment A. The Council adopts the Equity Working Group comments in full and [thanks the Equity Working Group for its ongoing commitment to ensuring program equity in the Final Plan](#).

Workforce Development

To achieve the transformative climate and equity goals in the 2022-2024 Plan, the Commonwealth will need an expanded and skilled workforce. The Council acknowledges and appreciates the increased Workforce Development budget and commitment to the Clean Energy Pathways program in the Draft Plan. In the Final Plan, the Council expects the following:

- Increased detail on how the planned budget will be utilized, [including a detailed workforce development plan and budget needed to meet the state's electrification goals](#).
- More information, [including tracking and reporting](#), on efforts to improve Disadvantaged Business Enterprise (DBE) participation in PA procurements.
- Ensure that workforce efforts align with Equity Working Group and Consultant recommendations provided in the March Resolution.

- More detail on the PA’s plan to collaborate with the Massachusetts Clean Energy Center on its [implementation of](#) workforce programs [pursuant to the Climate Act](#).

3. Topic Areas

Residential Sector

The Council requests that the Final Plan addresses all of the Residential Sector recommendations listed in Appendix A to the March Resolution. The Draft Plan shows progress in addressing the Council’s priorities, particularly in emphasizing electrification and weatherization, but levels of investment in electrification are still insufficient to achieve the Commonwealth’s GHG goals and the details regarding implementation strategies do not give the Council confidence its priorities will be achieved.

In order for the Council to support a Final Plan, the Council requests the following:

- Significant increases in the numerical goals for both space and water-heating heat pump installations to align with the Consultants’ Assessment of Potential, with a ramp-up over the three-year term. The Council expects that existing electric, oil and propane space and water heating systems will be replaced with heat pumps wherever technically feasible. [Customers should be supported with long-term planning considerations including the option to switch from gas to heat pumps at the end of equipment life. At a minimum, incentives should be offered and marketed for cost-effective gas to heat pump measures.](#)
- A framework for successful achievement of the heat pump numerical goals in the form of a comprehensive market transformation plan [that includes customer education and support, long term planning to convert from fossil fuel systems](#), encompassing all levels of the supply chain and focusing strongly on education and customer cost management.
- Phase-out of incentives for fossil fuel equipment per the Council’s March Resolution.
- Increase in the numerical goals for [weatherization jobs number of residences and businesses to be weatherized](#), to ensure that homes are “heat-pump ready” and to support the growing opportunity and need for electrification.
- [Develop a whole-home-, performance-based retrofit electrification program design modeled after DOER’s Home MVP pilot](#), that goes beyond enhanced incentives to encourage [co-delivery of an integrated program to deliver weatherization and](#) heat pumps for space and water heating, [and weatherization, as well as](#) supporting customer entry through both the Residential Coordinated Delivery (RCD) and Retail Initiatives.
- Integration of home energy scorecards into home energy assessments and effectively leverage them to [achieve inform customers about potential impacts of fuel](#) conversions.
- A fully formed all-electric new construction offer for the 1-4 unit market segment and commitment to cease incentives for fossil fuel heating or hot water in new construction [by January 1, 2021](#).
- Dedicated reporting of multifamily participation, savings, and budgets within the RCD Initiative to provide enhanced access to service to this important segment.
- Seamless integration of Active Demand Management (ADM) [Facilitate comprehensive electrification for residential customers including co-delivery of electric vehicle charging, storage, Electric Vehicle charger, and Solar Photo Voltaic incentives into the program.](#)

- [Building on the success of the Passive House offering introduced in the current Plan, develop a framework to facilitate deep retrofits at multifamily buildings \(including affordable housing\) utilizing a flexible, predictable approach that supports leveraging of outside resources and includes non-measure-specific incentives.](#)

Income Eligible

The Council requests that the Final Plan respond to all of the Income Eligible recommendations listed in Appendix A to the March Resolution. To ensure that these priorities are met, and to prevent income-eligible residents from being “left behind” in the transition to a clean energy future, the Final Plan must demonstrate a significantly increased investment in electrification, weatherization/envelope measures, and technologies to support active demand [management](#). This will require an increase in the income-eligible budget overall, and/or a re-allocation of resources to ensure funding consistent with the Council recommendations below. The Final Plan must also demonstrate an increased focus on multifamily buildings, including effective service to buildings with mixed-income residents, increased flexibility to support deep energy retrofits of subsidized housing, and targeting of smaller multifamily buildings, especially naturally occurring affordable housing. In addition, to ensure continually improving equitable and effective delivery of resources and services, the Final Plan must show a strengthened commitment to transparent and modernized data collection and reporting.

In order for the Council to support a Final Plan, the Council requests the following:

- A budget increase for the Income Eligible Sector to support a more costly measure mix that includes increased electrification, weatherization, and active demand measures as well as anticipated increases in the numbers of income eligible households served.
- [Significantly increase the goals for heat pump installations for both space and water heating and ensure that such goals reflect a ramp-up over the Plan term.](#)
- ~~The Council expects that existing [electric, oil and propane](#) space and water heating systems will be replaced with heat pumps wherever technically feasible, [and where energy burdens will not be increased. Weatherization measures should be considered and implemented to enable electrification without increasing energy burden.](#) Note that this will require an increase in the budget allocated to heat pumps.~~
- ~~[Significantly increase the goals for heat pump installations for both space and water heating, and ensure that such goals reflect a ramp-up over the Plan term](#)~~
 - ~~The Council's expects that existing [electric, oil and propane](#) space and water heating systems will be replaced with heat pumps wherever technically feasible, and that as [As](#) a result planned fossil fuel equipment numbers will be lower in the Final Plan, with associated budget funds reallocated to heat pumps and weatherization.~~
 - The Council also expects the Final Plan to include resources and strategies to remove or mitigate barriers to participation and installation, and to ensure customer awareness of, and satisfaction with, heat pump technologies. Such strategies include customer, contractor, and operator education, as well as other strategies outlined in the March Resolution.
- Increase the goals for weatherization ~~[workforce development](#)~~ and ensure co-delivery of heat pumps with weatherization.

- Significantly increase the goals for installation of wi-fi thermostats or other technologies to support active demand participation, and ensure that such goals reflect a ramp-up over the Plan term.
- Increase the budget for multifamily buildings to support an increase in installations of heat pumps (particularly for small multi-family buildings), envelope measures (including masonry weatherization where appropriate), and wi-fi thermostats. Note that this may include a re-allocation of the lighting budget toward these measures, and/or a re-allocation of the single family budget toward multifamily.
- A clear strategy for phasing out lighting incentives by 2024. The Council expects that the lighting budget in the Final Plan will decrease for each year of the Plan to reflect a ramp-down of lighting installations overall.
- Include a strong commitment to metrics and reporting designed to increase transparency and accountability regarding planned investment and work performed in single family vs. multifamily buildings, and across PA and CAP agency territories.
- Include a commitment to develop and implement a statewide computerized audit tool by the date specified in the recommendations set forth in the March Resolution.
- Develop and implement strategies to increase participation of income-eligible renters living in “naturally occurring” or non-institutionally-assisted housing, including implementation of a mixed-income protocol that provides a streamlined, efficient process for customers.
- Capitalize on all opportunities to support electrification and deep energy retrofits, in the affordable housing sector by including programming and budget that provides flexible, non-measure-specific incentives modeled and incentivized at the building or project level [delivered through an approach that supports bringing outside funding to projects](#).
- Include the Cape and Vineyard Electrification Offering (CVEO) recognizing its innovative approach to serving low- and moderate-income residents with a package of clean energy technologies to reduce GHG emissions through electrification.
- [Seamless integration of Active Demand Management \(ADM\). Facilitate comprehensive electrification for residential customers including co-delivery of electric vehicle charging, storage, and Solar Photo Voltaic incentives.](#)

Commercial & Industrial

The Council requests that the Final Plan respond to all the Commercial and Industrial (C&I) recommendations listed in Appendix A to the March Resolution. This is imperative as the Draft [Plan fails to achieve even Plan’s goals are less than](#) half of the electric savings identified in the PAs’ market potential studies. The Council expects significant increases in budget, savings goals, and benefits for the C&I programs to meet the statutory mandate of all cost-effective energy efficiency. Having successfully transformed the commercial lighting market to high-efficiency LED technologies, C&I programs must now shift to a more holistic treatment of total building energy use and specifically target heating, cooling, ventilation, and process loads. Strategies used to deliver significant lighting savings will be less applicable to more complex and interrelated end-uses, and the programs must adapt to help customers capture these substantial but more difficult opportunities. This will require an increase in the C&I budget overall, and a re-allocation of resources as described below.

To support a Final Plan, the Council requests the following:

- Create a dedicated stakeholder working group that includes C&I program participants to identify concrete ways to improve programmatic offerings and reduce barriers to participation, including considering implementation of a third party program administrator demonstration.
- Develop a consistent definition of “small business” in order to better serve the sector.
- Invest in more engineering staff and/or technical assistance vendors to identify, develop, and review complex custom project scopes of work in a consistent and expedient manner.
- Launch a Deep Energy Retrofit ~~pilot or~~ program offering in 2022 that seeks to dramatically reduce C&I building loads and associated GHG emissions holistically.
- Increase spending and savings goals for commercial envelope measures and apply lessons learned from ongoing small commercial weatherization pilots.
- Reduce reliance on point-of-sale rebates for complex measures and end-uses such as HVAC systems and process, and instead prioritize custom retrofit measures that utilize existing conditions baselines.
- Significantly increase investment in commercial electrification and prioritize envelope measures that reduce overall thermal loads to begin with.
- Focus all remaining indoor lighting opportunities on controllable technologies ~~and stop incentivizing.~~ Starting in January 2022, cease incentives for all TLEDs through the midstream pathway. For the small business turnkey pathway, ~~–~~ prioritize LED fixtures with controls and only install TLEDs paired with controls.
- ~~Work with cities and towns to identify and mitigate barriers to streetlight conversions of both customer and company owned streetlights.~~
- Demonstrate strategy to convert remaining streetlights to LEDs within first 12-18 months of the Plan, incorporating wireless controls at the time of conversion.
- Develop and implement a dedicated downstream program for public buildings by start of 2023 that emphasizes HVAC and building envelope measures with enhanced incentives, using lessons from effective Cape Light Compact program.

Equity

The Council requests that the Final Plan ~~respond~~commit to implement, through identifiable metrics, distinct budgets, and detailed descriptions of strategies, all of the Equity recommendations listed in Appendix B to the March Resolution. As noted above, the Council also adopts the EWG’s comments in response to the April Draft (attachment A). The Council emphasizes the EWG’s comments and expects a Final Plan to include specific equity targets, designated budget levels for identified customer types and environmental justice communities, more detailed and frequent data reporting, and specifics on programmatic enhancements and changes. The Council expects that the equity budgets, targets, and programs will be intentionally designed and calculated to ~~increase redress past under-~~participation ~~from and enable~~ underserved customer groups to realize savings and benefits and participate equitably in the transition to a low-carbon future.

Active Demand Management

The Council requests the Final Plan to respond to all the Active Demand Management (ADM) recommendations listed in Appendix A to the March Resolution. While the Program Administrators’ Draft Plan demonstrates an expansion of core active demand offerings such as Residential Direct Load Control Wifi Thermostats and C&I Curtailment, it falls short of capturing all cost-effective potential demand savings identified in the PAs’ potential studies. This is especially true for Residential Direct Load

Control Wifi Thermostats where less than 5% of total Massachusetts households with central cooling are currently enrolled in the program as of 2020. The EEAC Consultant’s Assessment of Potential also recommend significantly more active demand storage than proposed in the April draft plan. As noted in ACEEE’s 2019 paper: *Integrated Energy Efficiency and Demand Response Programs*⁶ – Massachusetts’ Connected Solutions program is only at Tier 2, Cross-Promotion, out of four levels. The Council recommends the PAs work to achieve Tier 4, Fully Integrated Programs, by integrating efficiency and demand savings offerings and incentives rather than just cross-promoting them. In addition, the Council [recommends expects](#) more transparency and reporting on various active demand offerings.

In order to support a Final Plan, the Council requests the following:

- Increase the goals for Residential Direct Load Control Wifi Thermostats to reach at least 20% of centrally cooled homes in the Commonwealth by 2024.
- Further integrate ADM savings measures for control-based measures by offering higher energy efficiency incentives for demand response enabled technologies.
 - Example – provide a higher tier Energy Management System incentive for those that build load shedding protocols into their programming at the time of commissioning.
- Set specific numerical goals for Income-Eligible and Small Commercial Direct Load Control Wifi thermostats, and report these figures going forward in all regular ADM reporting.
- Phase out support for fossil fuel generator participation in active demand programs and report the amount of C&I demand savings from generators versus load curtailment until said phase out is complete.
- Expand goals for energy storage ADM in ~~both residential and~~ commercial, [and income eligible](#) sectors.
- [Transition EV charging pilot to a program offering by January 1, 2022.](#)
- Provide more clarity on the long-term incentive levels for energy storage systems to give developers and customers the necessary information they need to finance storage projects.
- Strive to meet the vision of the U.S. Department of Energy’s Grid Interactive Efficient Buildings⁷ concept in all new construction projects across all sectors.

4. Performance Incentive

As stated above, the Council emphasizes that the 2022-2024 Plan is a transformational plan which must meet the challenge of aggressive GHG emission reductions required by the Climate Act to combat the effects of climate change while also equitably serving Massachusetts ratepayers. [The priorities of GHG emissions reduction and equitable program delivery must be considered in tandem to ensure that historically underserved communities are able to realize benefits from emissions reduction efforts.](#) The Council expects the 2022-2024 Performance Incentive (PI) Mechanism to transition in support of these priorities. Specifically, the PI mechanism must be designed to incentivize the PAs to pursue benefits and energy savings in communities that have been historically underserved by the programs. The PI

⁶ <https://www.aceee.org/sites/default/files/publications/researchreports/u1906.pdf>

⁷ <https://www.energy.gov/eere/buildings/grid-interactive-efficient-buildings>
<https://www.energy.gov/eere/buildings/grid-interactive-efficient-buildings>

mechanism must also be foundationally based on rewarding the PAs for reaching the GHG reduction goal set by EEA Secretary Theoharides, through increasing implementation of measures and developing programs that will support the achievement and align with the Commonwealth’s interim and long-term climate goals- while also ensuring that underserved communities are prioritized. The Council expects the PI mechanism to be a change from past plans.