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Patrick Woodcock, Commissioner
Massachusetts Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

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Comments submitted by email to: ma-eeac@mass.gov

Dear Commissioner Woodcock and Members of the Massachusetts Energy Efficiency Advisory Council:

I submit the following comments and recommendations to DOER and the EEAC regarding the Three-Year Energy Efficiency Plan 2022-2024 (the Plan). My comments are informed by my experience serving on the Town of Montague's Energy Committee for 12 years and counting, having been certified by the Building Performance Institute as a building analyst, engaging as a climate activist working for policy and legislative climate solutions, and as an energy efficiency and renewable energy consultant to homeowners.

I support the Plan's excellent new priorities of electrification, equity and workforce development which will contribute to reducing our greenhouse gas (GHG) emissions while strengthening our economy in an equitable manner.

That said, the current draft Plan will not result in sufficiently contributing to Massachusetts meeting its GHG reduction targets required by the *Act creating a next-generation roadmap for Massachusetts climate policy* (the "Roadmap" bill) signed into law earlier this year, nor it does not include sufficient transparency and accountability to assure successful implementation of its stated priorities.

I submit the following recommendations intended to strengthen the Plan, ensure that it will expand its ability to further reduce our GHGs, in keeping with Roadmap bill's mandates, and is well implemented.

- **As mandated by the Roadmap bill, all parties involved in the Mass Save program must factor the "social value of greenhouse gas emission reductions," into the design, evaluation, and approval of the program and its features.**
 - This mandate is **not** reflected in the Plan and needs to be incorporated across its goals, strategies and budget.
 - For example, the Plan states one strategy for Income Eligible residents (p.14): "Optimization of HVAC incentive levels to ensure prioritization of heat pumps when they deliver positive customer economics."

- Criteria in the Plan must also include that the social value of GHG emission reductions in evaluating measures such as heat pumps, not just customer economics.
- The Plan should include measurable goals throughout, with record keeping for robust evaluation of the Plan's successes and failures, so that ongoing corrections can be made.
 - Please provide detailed information on what will and will not be included in reporting across all programs, and to whom it will be reported.
- Measurement and accountability for the equity goals need to be clearly specified to ensure that these goals are met.
- The Plan should incentivize air source heat pump-only air conditioning immediately, not by year three, as the technology currently exists and is significantly more efficient than traditional central air conditioning. Incentives for AC upgrades for non-heat pump air conditioning units should be immediately eliminated.
- Given that the Plan is prioritizing electrification of heating and cooling with air source heat pumps (ASHPs), it should commit to incorporating the use of low Global Warming Potential (GWP) refrigerants for ASHPs as soon as they become available, since current hydrofluorocarbon (or HFC) refrigerants in these systems have GWPs that are at least 1,000 to 2,000 times more potent than carbon dioxide. Massachusetts has already implemented an HFC phase-out for other products.
 - The U.S. Environmental Protection Agency (EPA) has a list of alternatives to high GWP refrigerants in their Significant New Alternative Policy (SNAP) program.
 - The Plan should require that, as soon as low GWP alternatives are added to that list for residential ASHPs and mini splits, that these refrigerants be used.
- I commend EEAC for including pre-weatherization measures, as they will remove barriers to energy efficiency that are commonly encountered.
 - Adding electric panel upgrades to the list of incentivized pre-weatherization measures will be necessary to make efficient electrification of heating and cooling with ASHPs, hot water heating with heat pump water heaters, and charging of electric vehicles with Level 2 home chargers feasible for most moderate and low-income families. I recommend its inclusion in the Plan along with other barriers such as the knob and tube wiring upgrades already included.

- **In keeping with the Roadmap bill’s mandate to reduce GHG emissions by 50% by 2030, incentives for fossil fuel heating and hot water systems should be eliminated immediately.** Continuing to incentivize upgrading fossil fuel furnaces and boilers to more efficient fossil fuel systems which will last for decades will not serve the state’s GHG emission reduction mandate.
 - The full life-time pollution of natural gas, including drilling, transport, and leakage of methane into the atmosphere, is compelling enough to prohibit incentivizing the use of natural gas. While switching from natural gas to ASHPs may limit a customer’s cost savings, it is essential to meeting the Roadmap bill’s mandates, including the social value of GHG reductions, and not keeping customers on fossil fuels for decades to come.
- Incentives for ground-source heat pumps for new housing developments or commercial buildings should be added to the Plan.
- The workforce development sections of the plan should include retraining gas industry and HVAC professionals for a future without reliance on gas and for expanding job opportunities in rapidly increasing installations of renewable & high energy efficiency technologies like ASHPs.
- The climate bill calls for an opt-in net zero stretch code, along with the high-performance stretch code to be updated soon (page 23, 3rd paragraph).
 - The Plan needs to add language referring to net zero energy stretch code to be developed by DOER, as specified in the Roadmap bill.
- Add incentives for all income levels for electric induction stoves.
- Regarding equity goals:
 - It should identify specified goals for participation by underserved target groups, including low to moderate income residents and people who speak other languages.
 - Reporting metrics on the implementation reaching specific underserved populations should be included for tracking of its success.
- For more equitable implementation, the program must increase the types of support it provides to low and moderate income communities and communities of color, for weatherization, electric heat pumps, and more efficient appliances.



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- The Plan should increase support for moderate income residents, increasing the zero cost programs from 60% to 80% median income levels.
- The program should provide steady funding and specified budgets for community partners who are the experts on their community needs and are trusted by local people; target outreach in underserved communities, communities with income burdens, those hit hardest by COVID, communities with significant language isolated customers, and landlords with low-income tenants.
- To make higher cost measures accessible to moderate to low-income residents and landlords, the Plan should include financing mechanisms, with a state entity providing loan guarantees as was the case with the Massachusetts Clean Energy Center's Solar Loans for lower income participants.
- With the residential sector more focused on heat pumps, to make them accessible to Income Eligible residents, including renters, the Plan should expand the current program for no-cost heat pumps for these residents.
- Workforce development should focus on opportunities for workers with low and moderate income, communities of color and multi-lingual people.
- Incentives for landlords with low-income tenants to participate in energy efficiency upgrades and other energy-saving programs need to be increased to have a chance of being effective, particularly in the typical cases when landlords do not pay for utilities and thus have a split incentive to make these upgrades.
 - This is especially important, because low-income tenants pay the highest percentage of their income for utilities compared to higher income residents.
- Funding for Commercial & Industrial (C & I) measures appear to have been substantially reduced from the prior plan, with no justification provided. This is a serious concern which needs correcting, as the largest GHG emitters in the building sector are the biggest buildings.
- Energy storage targets should be specified under the Active Demand Response category for C&I.
- The Plan should include incentives and financing for deep energy retrofits.

Thank you for your consideration of these recommendations as you review and strengthen the 2022-2024 Three Year Plan. I urge you to integrate these recommendations in the next draft.

Sincerely,
Sally Pick

SJP Environmental Consulting, LLC