

September 28, 2021

Patrick Woodcock, Commissioner
Massachusetts Department of Energy Resources
100 Cambridge Street, Suite 1020
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ma-eeac@mass.gov

RE: PA Update on 2022-2024 Three Year Plan presented to the EEAC 9/22/21

Dear Commissioner Woodcock and members of the Energy Efficiency Advisory Council,

We listened carefully to the PAs 9/22 update on the 2022-2024 Three Year Plan that emphasized the revisions required to meet the GHG reduction targets mandated by Secretary Theoharides on July 15, 2021. We appreciate the dramatic increase in the Plan's overall budget compared to the 2019 – 2021 Plan, along with the concerns that the budgets may not be adequate and additional funds may be needed from external sources or borne by participating customers. As the PAs note, there is no precedent for an effort at this scale. This assertion is reassuring because climate change mitigation is also an unprecedented challenge.

It is also worth noting that we have submitted testimony to the Joint Committee TUE hearings regarding the allocation of the \$5B of ARPA funds, requesting that 10% (\$500M) be allocated for building decarbonization, including supplementary allocations to the Mass Save programs.

Reviewing the PAs Core Plan Themes, regarding Electrification, it calls for an “Explicit plan for efforts necessary to drive market transformation” and shows a growth graph “hockey sticking” from under 5,000 households to over 25,000. But there is no explicit plan to evaluate. There is an estimate of additional costs of \$350 - \$450M and some general goals regarding Customer Awareness, Contractor Enablement and Manufacturer Engagement. We may be able to help with constructive comments, but not until there are explicit plans to evaluate. Regarding Customer Awareness, the PAs presented a slide showing that 54% of customers are “Not Familiar” with heat pumps, but 43% believe that they will lower the cost of heating! We doubt that this answer was predicated on an assumption that the home would receive significant weatherization upgrades prior to the heat pump install. This perception is a problem that, left unaddressed, will result in a lot of unhappy customers.

Regarding Contractor Enablement and Manufacturer Engagement, entry level training and increasing the number of Certified Installers are both critical. HVAC subcontractors tend to see heat pumps as just a variation on an air conditioning unit – “I know how to do that.” It's too easy for them to simply buy the equipment and do a sub-par installation. Manufacturer-certified training on at least one brand should be required to better assure quality-controlled installations. And manufacturers should be careful to train their sales reps not to oversell the amount and size of equipment recommended.

Regarding Equity, the “Proposed launch of \$112M suite of enhanced moderate income incentives covering HVAC, weatherization, barrier mitigation and improved income verification processes” sounds good but, once again, without explicit program details there is nothing to react to. The previous Plans have demonstrated how difficult barrier mitigation, income verification, and enrolling renters is. How will this Plan be different?

Regarding Workforce Development, the PAs point to a \$50M commitment with a goal of reaching over 12,000 energy efficiency (EE) employees. This is a critical need because there are simply not enough trained trades people in the State to meet the requirements of the CECF and this Plan. The PAs mention Passive House and all-electric new construction training, but there is no mention of training for scaled-up weatherization and deep energy retrofits. There is no mention of the \$12M/ year (\$36M total) that must go to MassCEC for workforce and market development. Does that \$36M come out of the \$50M? What type of coordination will there be between Mass Save and MassCEC? How will you reach 12,000 EE employees?

“Residential / Income Eligible Sector Highlights” include an All-Electric path to Zero 1-4 Initiative and an Income eligible multi-family deep energy retrofit program. Since these ideas were unveiled in April, we have been recommending that they at least should offer a Passive House certification as an approved alternative pathway. So many consultants and contractors are becoming familiar with Passive House, we think that many would opt to use it rather than attempting to understand a new (and yet to be seen) modeling system, with to-date unspecified requirements for: Air infiltration; Heat Recovery ventilation/distribution; Minimum interior surface temperatures; Design reviews; and Quality controls. When will these details be available? You can require all-electric including hot water and 30% energy savings and allow these goals to be achieved via Passive House certification. The same should be done for the deep energy retrofit program.

Regarding the “Electrification & GHG Reductions for Commercial Buildings” slide, the first goal listed is “Rapid Heat Pump Adoption,” and yet there is no mention of the significant weatherization that must accompany this initiative. Again, heat pumps and significant weatherization should always be mentioned at the same time and be programmatically connected.

The last slide is entitled “We Need Your Help.” We look forward to helping as much as possible, but we need detailed program proposals to react to.

Thank you

Hank Keating, AIA, President, Passive House Massachusetts