

October 12, 2021

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

We, like you, have had very little time to review and formulate comments on the Three-Year Energy Efficiency Plan (Proposed Plan) submitted by the PAs on October 6, 2021. Time is running short before you must submit a final version to the DPU and this document is lacking many important details and numbers making detailed comments difficult.

Regarding the Section 1:OVERVIEW we have the following comments / questions:

- PLAN PRIORITIES quotes the 2008 GCA mandate for the PAs to “pursue all cost-effective energy efficiency that is less expensive than supply”. This should be immediately followed by pointing out the Climate Act’s revision that requires this cost-effectiveness calculation must now include the social value of GHG emissions reductions. This Proposed Plan has not adequately integrated this new and important approach to designing and evaluating programs. There is no substantial discussion of this until Appendix A where the twelve most important Considerations underlying the Proposed Plan are listed and do not include the social value of GHG emissions reductions. Extensive explanations of Potential Studies include no reference to the social value of GHG reductions. The PA’s explanations of predicted program cost increases do not include any reference to the social value of GHG reductions. The Proposed Plan declares that “A program is cost effective under the TRC test if the cumulative present value of its benefits is equal to or greater than the cumulative present value of its costs.” And yet, the Proposed Plan states that the social value of GHG emissions reductions has been included in the calculations. It does not offer any specific value and states that the 2021 AESC Study vendor is currently “performing additional research in order to determine an appropriate value in advance of the final Plan filing”. Will we ever actually see how these values are determined before the final Plan is submitted at the end of this month? If Climate Change is an existential threat to the planet and to all the PA’s rate payers, then the social value of GHG reductions must be very high. This Proposed Plan gives no indication of this.
- ELECTRIFICATION points to a focus on increasing the scope and scale of building retrofits to accommodate the electrification of heating with heat pumps. It realistically recognizes that conversions to heat pumps from natural gas will almost always result in increased heating costs for the customer. Therefore, it assumes that this Three-Year Plan will focus on heat pump conversions from electric resistance and delivered fuels. This assumption will not meet the goals of the CECP for heat pumps in 1M homes by 2030 – 125,000 conversions per year. The social value of GHG reductions ought to provide substantially higher incentives to natural gas customers to complete significant weatherization retrofits and convert to heat pumps.
- WORKFORCE DEVELOPMENT “recognizes that a stable, trained, diverse and adaptable workforce is fundamental to the continued success”. This is true, but it misses the most significant

problem – we need to exponentially expand the weatherization, HVAC and plumbing workforce to meet the goals of this Plan and the CECP. The planned partnership with MassCEC is encouraging but it must ramp up very quickly and develop numerical goals that are meaningful. The Proposed Plan calls for 120 individuals to be trained in three years for entry level HVAC, weatherization and building operations. This goal ought to be at least 1200! The only other workforce numerical goal is for the certification of an additional 90 Passive House professionals. This goal should be increased by 30% to 120.

Regarding the RESIDENTIAL NEW HOMES & RENOVATIONS INITIATIVE we have the following comments / questions:

- We appreciate that the Passive House Incentive Program for 5 units+ will be continued but would simply like to confirm the incentive amounts. The Proposed Plan says that the “full cost of the required feasibility study” is covered. The current Plan has a \$5000 cap. We think increasing the cap to \$10,000 for projects over 75 units could increase participation. We would not recommend full cost reimbursement without caps. Likewise, the Proposed Plan says 75% of the modeling costs will be reimbursed without reference to the \$500/unit or \$20,000/ project cap in the current Plan. Will all the incentive amounts be the same as the current Plan?
- We suggested a similar Passive House Incentive Plan for 1-4 units. Instead the Proposed Plan has an All-Electric Path to Zero 1-4 Initiative which looks very good. We suggested that Passive House ought to be an approved alternate pathway as implied on page 75 “Passive House projects (including single -family projects pursuing the All-Electric Path to Zero as described in the innovations section below)”. We want to confirm this and that TIER 1 will be modified to require HERS 35- or 50%+ savings OR Passive House Certification. This ought to apply to 2-4 units also.
- The Zero Energy Modular Homes Offer sounds good but why waste ½ of the 3-Year Plan by waiting until 2023 to roll out? Why not challenge the modular home industry to produce all-electric homes that are certified under the PHIUS prescriptive path for single family homes. It should be easy to roll out such a program quickly.
- Looking at the Strategic Enhancements under the RCD Initiative, the Expanded Insulation Solutions must be carefully considered. There are some difficult existing conditions where the judicious use of spray foam could be beneficial but there is no mention of embodied carbon considerations. Without careful controls this enhancement could be very counterproductive.
- The Enhanced Incentives for Comprehensive Projects is very briefly described as being for retrofit projects “that include weatherization combined with high-efficiency cold climate heat pumps offsetting heat from electric resistance or delivered fuels”. No incentive amounts are proposed. This program must be fleshed out to offer robust incentives large enough to stimulate the participation of natural gas customers also – see ELECTRIFICATION above. We have suggested in the past that the incentive ought to be on the order of \$15,000 / unit plus the heat pump incentives. We also think there ought to be a Passive House deep energy retrofit pilot program funded at \$35,000 / unit. We need to stimulate the market to undertake these challenges and begin to work out the technical difficulties. These same comments apply to the Enhanced Incentives for Bundled Weatherization and Heat Pumps under the Residential Retail Initiative.

Reviewing the COMMERCIAL & INDUSTRIAL SECTOR PROGRAM DESCRIPTIONS we have the following comments / questions:

- The Strategic Enhancement that requires Path 1 projects to commit to commissioning at the LEED Enhanced Level is great as is the Verification incentive. There is reference to design teams using energy models to predict operational EUIs. If a project is pursuing Passive House Certification it will be required to use PHPP or WUFI modeling. Will that be accepted, or will these teams have to use another energy model in addition?
- Comparing Path 1 and Path 2 of the New Buildings & Major Renovations Pathways, it seems unbalanced if a Path 2 project with an EUI reduction of 25% will get \$1.25 / SF while a Path 1 project with an EUI of 25 or below gets the same \$1.25. Is the intent to reward the Path 1 project with the \$1.00/ SF Post -Occupancy ? Will there be mandatory requirements before getting the post -occupancy incentive or is it just timing? The incentive of \$3000 for ZNE or Passive House Certification is so small that it is meaningless. It ought to be at least \$10,000. Why would a Tier 2 project get a 75%, up to \$20,000 cost share for Design-based technical assistance while a Path 1 ZNE project qualifies for only 50% up to \$10,000. Would a Path 1 Passive House project get the same as a ZNE project? Regarding the Verification incentive you should clarify what is required to meet the “review of controls” - it makes sense but sounds like retro-commissioning, another expense.

We are sure that a closer reading of this entire document along with its Appendices and references would produce more comments and questions, however we must try to stay in step with this very aggressive schedule. We appreciate your consideration of our comments and questions aimed at making this a better Three-Year Plan.

Thank you

Hank Keating, AIA, President, Passive House Massachusetts