

March 15, 2022

Hon. Senator **Michael J. Rodrigues**
Chair, Joint Committee on Ways and Means
State House Boston, MA 02133-1053

Hon. Representative **Aaron Michlewitz**
Chair, Joint Committee on Ways and Means
State House Boston, MA 02133-1053

Re: **Utilize ARPA to create the Zero Carbon Renovation Fund to decarbonize Massachusetts' existing buildings.**

Dear Chair Rodrigues and Chair Michlewitz,

We are writing today to ask that the Commonwealth please allocate 5% (\$250 Million) of the American Rescue Place Act (ARPA) funds to **create the Zero Carbon Renovation Fund** that will decarbonize *existing* buildings in Massachusetts.

Our Proposal: To boldly respond to the climate crisis and improve the health and well-being of the residents of Massachusetts, allocate 5% (\$250 Million) of ARPA funds to rapidly renovate the Commonwealth's existing buildings to zero carbon. Administered through MassCEC, this Zero Carbon Renovation Fund will result in deep carbon savings by transforming our existing buildings to be super energy efficient, all electric, powered by clean renewable energy, and renovated with low-embodied carbon materials. This is especially important today, before the grid is decarbonized.

The impact will be dramatic, providing healthier and more affordable places for people to live and work, while simultaneously moving the Commonwealth toward meeting our climate goals. This infusion of capital today will transform the marketplace so that over the next decade zero carbon renovations will become affordable business-as-usual renovations that improve the lives of people. By focusing on deep energy savings in existing buildings upfront, less money will be needed to expand and clean the grid. Furthermore, zero carbon renovations help ensure that the Commonwealth's most vulnerable populations benefit from a just transition off of fossil fuels.

Target Buildings: The Zero Carbon Renovation fund would be used for affordable housing, public housing, low- and moderate-income homes, non-profits, municipal buildings, including, but not limited to, schools and small businesses with [Massachusetts State Supplier Diversity Office Certifications](#). Buildings located in environmental justice communities and communities disproportionately impacted by COVID shall receive preference.

The Bold Leadership of Legislators: The MA legislators boldly passed An Act Creating a Next Generation Roadmap for Massachusetts Climate Policy (“Climate Act”) in 2021. That was quickly followed by Building Emissions Reduction and Disclosure Ordinance (BERDO) 2.0 and other local initiatives, as well as many other climate bills currently being considered in the State House. The next step in this trajectory is to provide existing building owners with the necessary tools through the Zero Carbon Renovation Fund to improve health, reduce operating costs, and dramatically cut carbon in existing buildings by the middle of this decade.

Precedents for Utilizing ARPA for Decarbonization: Other states are utilizing ARPA for building decarbonization. For example, **Maine allocated 5% of ARPA** funds to accelerate weatherization and efficiency upgrades including those initiatives to develop and support climate change mitigation.

The Urgent Need for Zero Carbon Renovations: “Nearly one third of Massachusetts’ emissions come from its more than 2 million **existing** buildings.”¹ Under development, the Zero Energy Stretch Code should help ensure that more new buildings in MA will be carbon-free. However, as stated in the [Massachusetts 2050 Decarbonization Roadmap](#), “Electrification and efficiency in existing buildings presents a larger challenge, as this stock represents the bulk of emissions reductions needed by 2050.” The Climate Act hinges on retrofitting over 1 million existing homes by 2030 and 350 million square feet of commercial retrofits, “with at least two-thirds [of existing buildings] receiving deep energy efficiency improvements.”²

As detailed in the [Massachusetts 2050 Decarbonization Roadmap](#), “the failure or inability to deploy such improvements [in existing buildings] increases the difficulty, risk, and cost of required new clean electricity generation additions, adding over \$1 billion in annual energy system costs (or more than \$500 per year per household) by 2050.” We cannot risk waiting to renovate our existing buildings until later in the decade. Yet, Massachusetts is not currently on the trajectory to meet these renovation goals, even if the new Mass Save Three-Year Plan is fully adopted by the Department of Public Utilities (DPU) and implemented by the Program Administrators. With the stall of both the New England Clean Energy Connect and the Transportation Climate Initiative, two pillars of the Climate Act, deep carbon savings from renovating existing buildings now is even more important, especially before our grid is fully decarbonized.

Climate Crisis Time Check: As demonstrated by the passage of the Climate Act, the Massachusetts State House clearly understands the urgency of the climate crisis and the need to make major progress on mitigation by 2030 to maintain 1.5° C climate goals and avoid catastrophic results. The best way to mitigate this is through project implementation today.

¹[Shankman, Sabrina, Massachusetts should be converting 100,000 homes a year to electric heat. The actual number: 461, Boston Globe, 8/21/21](#)

² [Massachusetts 2050 Decarbonization Roadmap](#)

“We are nine years from 2030, and we have barely begun to scratch the surface in terms of what we’re doing and where we need to be going,” said Eugenia Gibbons, Massachusetts climate policy director for Healthcare Without Harm. “We need to be doing more, faster. The world is burning — I don’t know how else to say it.” – [Boston Globe, August 2021](#)

We need bold zero carbon projects in our building sector today and bold leadership from legislators. **Strategic ARPA funds will jump start the zero carbon revolution in existing buildings, while making them healthier and more affordable places to live and work.** When else will the Commonwealth have an equivalent infusion of capital to make bold investments in the climate crisis, health, affordability, and zero carbon renovations?

If the Zero Carbon Renovation Fund is established today, we will see a wave of zero carbon retrofits completed by the middle of the decade. Through this strategic investment, we will save significant carbon immediately, improve health, and affordability. In parallel, this infusion of capital will support market transformation – a growth of designers, contractors, workers, and lenders who will be instrumental in implementing zero carbon retrofits through the end of the decade.

Such strategic investment puts Massachusetts on the path of achieving carbon goals in the building sector now. It front loads zero carbon retrofit work by the middle of the decade, rather than scrambling to retrofit two million buildings later in the decade when it may be too late. Moving buildings to zero carbon today has disproportionate benefits, especially during this climate-sensitive period before the Commonwealth cleans the grid. The best way to achieve the goals of the Climate Act is by implementing real projects today.

The Funding Gap: Renovating buildings to zero carbon can currently cost as much as \$30,000 to \$60,000 per housing unit or the equivalent of \$30 to \$60 per square foot for non-residential buildings. ARPA 1.0 devoted only \$6.5M to zero carbon retrofits, the equivalent of less than 200 homes, if each home is allocated \$30,000. Yet to meet the Climate Act’s carbon targets, we need deep carbon savings in over 300,000 homes in the next three years, plus a significant number of non-residential buildings. Given the urgency of the climate crisis, pilots can be useful, but even more crucial are bold market transforming policies that scale technology and methodologies that work today. For meaningful transformation in our existing buildings, the ARPA 2.0 allocation needs to be forty times higher than the ARPA 1.0 allocation. Investment in the Zero Carbon Renovation Fund leapfrogs the pilot period, in step with the urgent timeline of the climate crisis. It will result in immediate deep carbon savings and market transformation, ultimately saving money in the long run and improving public health, resilience, and equity outcomes.

Leveraging Mass Save and Other Funding Sources: Meeting our climate, health, and affordability goals requires bold action and investment from a number of funding mechanisms, including the strategic utilization of ARPA. The Zero Carbon Renovation Fund will leverage other resources in Massachusetts and build a self-sustaining market for zero carbon renovations that

shepherd existing buildings through the end of the decade to meet Massachusetts climate goals. Once in motion, this market for zero carbon retrofits will be lubricated through the Mass Save program, [the HERO Act](#) (if passed), and other bills under consideration to ensure everyone in the Commonwealth can benefit from the just transition off of fossil fuels.

The Zero Carbon Renovations Fund will leverage Mass Save dollars today. Mass Save's Three Year Plan focuses its savings on heat pumps and new construction, with a smaller allocation for whole building renovations and deep energy retrofits. However, as stated in the [Massachusetts 2050 Decarbonization Roadmap](#), deep savings in "retrofits represent the bulk of emissions reductions needed by 2050." The Zero Carbon Renovation Fund will fill the gap and complement Mass Save by going deeper with energy efficiency measures, electrification, and renewables. It will support innovative projects that are not currently allowed under the strict DPU rules for Mass Save, such as [Cape Light Compact's proposal to provide weatherization, heat pumps, and solar to its customers](#). In addition to leveraging Mass Save, this funding will also support zero carbon renovations on our subsidized housing inventory, in conjunction with regularly scheduled renovations, in order to maximize impact at the lowest possible cost.

Build Back Better (BBB) is no silver bullet. Let's not wait on the promise of BBB, which may not pass, to decarbonize our buildings. Even if it passes, BBB offers no program for deep zero carbon renovations for existing buildings. BBB will help reduce emissions, but it funds shallower energy/carbon savings that will not transform existing buildings to zero carbon. Most BBB programs will also be administered federally. That means the Massachusetts State House and agencies will not be able to utilize BBB funds to design programs that support our climate goals, which are dependent on zero carbon renovations and market transformation. Finally, existing buildings in MA need all the resources they can get to decarbonize, especially during this period when the grid is still dirty. Decarbonizing existing buildings is expensive and we have over two million buildings in Massachusetts. Buildings need ARPA, they need Mass Save, and they need BBB (if passed).

Thank you for considering this proposal.

Sincerely,

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Ken Levenson, The Passive House Network



Anne Wright, Mothers Out Front Massachusetts



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