**DRAFT**

**Introduction to Emissions Reduction Plan (v. 2, 2/22/2024)**

**Background**

With the inception of the Zero Emissions Advisory Board (ZEAB) in 2022, it was the intention to form a town body responsible for creating and updating a plan to achieve zero emissions in Brookline by 2040.

Whereas our Climate Action Plans have broadly addressed all categories of actions that would support the climate, this plan focuses on a narrower aspect of climate action, specifically emissions reduction. The intention of this plan is not to negate other aspects of climate action, but rather to provide what was asked for in the inception of ZEAB. This board encourages the Town to continue to support and plan for climate action beyond the scope of this Emissions Reduction Plan.

**A Zero Emissions Vision**

Our emissions come from 3 primary sources: Transportation, Buildings and Electricity. We envision a future where the emissions from each of these sources is brought to zero. This means that we will need to eliminate gas powered vehicles from Brookline streets, disconnect all buildings from the natural gas network to run on electricity, and ensure that the electricity used is 100% emissions-free.

There are multiple steps needed to achieve that vision, and this plan represents our current impression of the most significant actions needed.

**Process**

The actions included in the Emissions Reduction plan were primarily drawn from our 2018 Climate Action Plan. We first removed any actions from that plan not directly related to emissions reductions. Secondly we removed actions that had already been completed, were no longer applicable, or were better addressed as a subset of a different action on the list. Third, we added actions that have gained importance but were not on the 2018 plan. We sent our preliminary list of action items to Brookline’s two primary climate advocacy groups, Climate Action Brookline and Mothers Out Front, for their input on what further actions should be added or removed. By the end of this process we were left with a list of roughly potential 50 action items.

We then developed a process for prioritizing action items. Each of the actions was rated on a scale of 1-5 on six weighted criteria and given a total score. While Climate Impact ranks highest, it is not the only factor to consider when taking action. The criteria and weights are as follows:

* Climate Impact (1.5x)
* Financial Return on Investment (1.25x)
* Public Visibility (1.1x)
* Ease of Implementation by End User (1x)
* Ease of Commitment from Stakeholders (0.9x)
* Ease of Financing (0.75x)
* Ease of Implementation by Town (0.5x)

We put a relative emphasis on the costs and potential return on investment, since money tends to play a strong role in decision making. Secondly, public visibility is important as a mechanism for gaining public interest and support for further climate action. We wanted to consider ease of implementation as well as ease of getting commitment to take the action, since both are key to the success of any program. We also consider ease of financing, and ease of implementation by the Town, which need to be factored into our decision making.

**Taking Action**

We recommend taking action on all of the top ten action items immediately, with the remaining actions following in the coming years.

Of the top ten action items, three are already somewhat underway

* Electrify Brookline campaign
* Revise town zoning to allow heat pumps and EV charger installation within setbacks
* Work towards 100% emissions free electricity for Brookline Green AND municipal contract

Of the seven remaining, we selected four to flesh out in more detail, creating frameworks for action. Similar frameworks can be developed for every item on this list.

* Establish an electrification coaching program
* Install solar PV over municipal parking lots
* Allow historic buildings to install emissions reducing measures consistent with town zoning
* Retrofit municipal buildings with yearly plan in CIP

We also recommend action on one item that is further down on the list because it is a task that will have a large climate impact but will likely take years of research and planning.

* Policy encouraging and eventually requiring Lifecycle carbon Analysis for building construction

It will be necessary to form working groups for many of the actions that include members of ZEAB, town staff, and the public, with the aim of having very clear actionable steps that can be completed in the near future.

**A Note on Environmental Justice**

While Brookline acts to address our necessary emissions reductions, we must at the same time address historic injustices in our Town’s planning and policies that have resulted in disproportionate negative consequences for many of our minority and low-income residents. We must not continue to perpetuate systemic injustices in our future climate planning.

The Executive Office of Energy and Environmental Affairs (EEA) defines Environmental Justice as *“the equal protection and meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies and the equitable distribution of environmental benefits,”* ([EEA](https://www.mass.gov/environmental-justice#:~:text=EJ%20is%20the%20equal%20protection,equitable%20distribution%20of%20environmental%20benefits.) website). The EEA further elaborates on strategies the Commonwealth will use to support Environmental Justice. Among those strategies, we have selected the following as most applicable to Brookline’s emissions reduction planning:

* Enhancing opportunities for low income and minority residents to participate in environmental, energy, and climate change decision-making; and
* Ensuring these populations benefit from positive impacts of environmental programs, grants and investments.

As we make implementation plans for each item in this list, it is of the utmost importance that individuals from low income and minority populations are included in the planning, and that the benefits of actions taken specifically reach those populations within our town.