

Net Zero Framework for Action



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MAPC's **Net Zero Framework for Action** focuses on the multiple benefits of carbon mitigation strategies. Greenhouse gas (GHG) emissions reduction has many important co-benefits that, in addition to climate change mitigation, may motivate a community to act. Our approach identifies the Energy, Economic, Environmental, Public Health, and Equity benefits of each action to help guide communities to advance climate mitigation and align Net Zero goals with existing plans and targets.

Energy



Economy



Environment



As the negative impacts of climate change increase in our region, there is both an urgent need and drive for communities to reduce their GHG emissions. More and more Massachusetts municipalities are responding by setting GHG emissions reduction targets, taking inventory of their current emissions, and developing **Net Zero Action Plans**.

Public Health

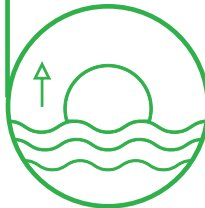


Equity





In order to avoid the most damaging effects of climate change, GHG emissions must be addressed rapidly and comprehensively. Responses today can help to address both long-term consequences and the impacts we are already experiencing today. Average temperatures have risen by nearly two degrees Fahrenheit in the last century in the Northeastern United States; a ten-degree increase is possible within the next century. The Northeast has also experienced a significant increase in precipitation intensity. In Boston, sea levels are expected to rise by eight inches by 2030, 1.5 feet by 2050, and three feet by 2070. The time to act - and the time for cities and towns to lead - is now.



2050

This moment presents the opportunity for municipalities to envision what our region can look like in 2050. In the process of planning for Net Zero, we can dovetail our GHG emission reduction targets with all of our plans. Municipalities can balance the urgent need to reduce GHG emissions with the need to plan strategically to ensure that 2050 is equitable, stable, safe, healthy, and thriving. Striving for a Net Zero future does not mean abandoning other urgent objectives. Instead, the goals of each priority can be accomplished together by implementing a multi-benefit framework.

Our Net Zero Process

MAPC's Net Zero Process includes four components that are iterative and work in parallel as a community progresses. Municipalities should seek to:

Gather Necessary Information

Survey current community-wide GHG emissions, including those from energy, buildings, transportation, land use, and waste. Most often, this takes the form of a GHG emissions inventory.

Prioritize Holistic Planning

Investigate and take action on a multi-benefit strategy for emissions reductions, including all of the sectors of the GHG inventory as well as related areas of impact and opportunity. Consider, for example, integrating the public health outcomes of net zero efforts, resilience benefits, and how to advance equity in your community through the policies and programs developed to reduce GHG emissions.

Recruit Support from Community

Identify and engage community stakeholders throughout the Net Zero Planning process. This is particularly important in Net Zero planning since implementation will occur not only in the public realm, but throughout the community.

Pursue Commitment

Establish a Net Zero goal and a GHG emissions reduction target with a timeline. This will help focus the development and implementation of the plan, and hold decision-makers accountable. Consider both short- and long-term targets.

What Equity Looks Like in This Process

Throughout the Net Zero Playbook, we chose plays based on each of the co-benefits of carbon mitigation. Although we investigate a measure's energy, public health, environment, and economic impacts as well, we pay particular attention to equity. This is because there are big risks to not acting equitably. There are existing inequalities in our region. If we fail to advance equity in our Net Zero work, the structures that support these inequities will remain unchanged.

Advancing equity requires us to change our processes, assumptions, and measurements of success. That is a big ask! Unlike our other priorities, equity does not come naturally in the planning process, so we need to work harder at it. In our **Framework for Equity**, we provide guidance on identifying the components of equity and on implementing equity in every step of a municipality's Net Zero planning process.



Equity



Action Evaluation Criteria

This **Framework for Action** guides our selection of top priority Net Zero plays in each chapter of the Playbook. The plays in the chapters of our **Net Zero Playbook** are not comprehensive. They are meant as a starting ground for customization. The actions we have selected should challenge communities to set ambitious but achievable goals for 2050.

Throughout the Playbook, we will indicate the timeline, implementation methods, and reasons for including each play in our list of top actions. For each sector of GHG emissions mitigation, we have chosen ten to fifteen measures based on a combination of these action evaluation criteria. We encourage municipalities to consider using these criteria to prioritize actions to include in their **Net Zero Plans**.

○ EQUITY IMPACTS

Whether the measure will benefit communities that would otherwise be disproportionately harmed by climate change, or by the implementation of other measures. The Playbook prioritizes the equity impacts of measures wherever feasible. Our Framework for Equity outlines methods to implement equity throughout the Net Zero planning process.

○ MUNICIPAL INFLUENCE

Whether municipal actions alone would drive the success of the measure. Many actions necessary for a Net Zero depend on the efforts of federal and state government or collective action of residents. In our selections for the Playbook, we have chosen a balance of measures which a municipality can directly implement, and those that require stakeholder engagement. Some of the bigger changes needed to get to a Net Zero future will require advocacy and engagement for success. For those measures, we aim to provide resources on how to meaningfully engage community members and other stakeholders.

○ SPEED OF IMPLEMENTATION

How quickly a measure must be implemented in order to be effective. The playbook identifies where a measure is a prerequisite or an enabling measure that must be implemented quickly in order to make impactful measures possible. Other measures must be implemented in the near-term to maximize potential impacts. For example, because a building built today will likely last through 2050, measures that address new construction should be implemented in the near-term. The Playbook prioritizes measures with urgent implementation timelines, while also curating Net Zero measures with a range of timelines.

○ FEASIBILITY

Existence of local examples or demonstrations, and availability of funding, financing, or incentive programs to support the action's implementation. In the Playbook, we highlight measures that are highly feasible now, and identify visionary measures. Visionary measures are ones which we anticipate to become easier to implement in the near-term.

○ OVERLAP WITH LOCAL EMISSIONS SOURCES

How well the measure aligns with the highest GHG emitting sectors based on a GHG emissions inventory. In the Playbook, identify the relative impact of measures on GHG Emissions where possible. For the Playbook, the relevance of the emissions mitigated is judged by regional and statewide GHG emission trends. In individual municipal Net Zero plans, this criteria can be additionally weighed against a municipal GHG emissions inventory.