

WHAT ARE CLIMATE ACTION OUTCOMES?

Eliminating emissions, building durable resilience, and achieving climate justice require transforming a broad set of deeply ingrained energy, infrastructure, and human systems.

This section defines and assesses progress on 12 outcomes (Figure 6) necessary to achieve the three goals.

Despite incremental action across all 12, we do not find sufficient progress in these transformations to ensure that Boston achieves these goals.

These 12 outcomes are informed by Boston’s prior work focused on climate action. *The Carbon Free Boston Summary Report*⁶ emphasized that a carbon-neutral city maximizes efficiency, electrifies activity, and runs on clean energy and focused on the sectors of buildings, transportation, energy supply (local and regional), and waste. Climate Ready Boston⁴¹ identified four layers of action: protected shores, resilient infrastructure, adapted buildings, and prepared and connected communities. The initiative has also emphasized the importance of focusing on neighborhoods, deploying district-level energy solutions, and expanding green infrastructure.

These outcomes have also been defined in leading net-zero^{72,73} and urban resilience scholarship,⁷⁴ which emphasizes the importance of integration of physical and human systems. Further, recent scholarship on climate justice has emphasized the importance of climate reparations aimed at redressing past harms.⁶²

Most, but not all, of the outcomes advance all three goals. The list is comprehensive with respect to mitigation and resilience but repairing past injustices and building a more equitable society will require efforts on many more fronts than climate-focused transformations. However, climate action can still be the catalyst for such society-wide change.

A comprehensive evaluation of progress in all 12 areas is beyond the scope of this assessment. Our summaries in each area are intended to provide the reader with a sufficient understanding of each outcome and where it stands. Each outcome is defined and linked to the goals of net-zero emissions, resilience, and equity.

Equity implications are summarized, or a potential indicator of progress is proposed where appropriate. This report set out to develop formal indicators to assess progress in advancing climate justice. However, the project team quickly found that data limitations and inaccessibility challenged our ability to create such indicators. In many cases indicators could be developed given improved data management and sharing by data owners (MassSave, City of Boston, utilities). Further, we realized that the most effective equity indicators are developed as part of a city-stakeholder process that establishes goals, not by a team of researchers external to that process.

Finally, we identified the essential areas in which effort has to be focused—we call these big lifts. They need immediate attention and action due to their scope, scale, and respective complexities. The big lifts are summarized in Part III and are detailed in supplemental reports.

Figure 6. Outcomes needed to achieve the goals of net zero emissions, resilience, and reparative climate justice.

