



Renewable Communities

Massachusetts cities and towns
leading the way to 100% renewable energy

Boston: Carbon Free Boston study

In November 2016, Boston and the 13 neighboring cities and towns that make up the Metropolitan Mayors Coalition committed to a target of net zero carbon emissions by 2050.¹

Following this commitment, the Green Ribbon Commission, a group of business and civic leaders in Boston, worked with the Institute for Sustainable Energy at Boston University to produce the Carbon Free Boston report. The report, released in January 2019, identifies pathways to reach the goal of carbon neutrality by 2050.²

As the report shows, dramatically reducing the amount of energy consumed in Boston's buildings is a critical step toward achieving carbon neutrality. The report envisions requiring new buildings to be net zero carbon no later than 2030, and possibly as soon as 2023. Additionally, existing buildings would be retrofitted to reduce energy waste, with 2,000 – 3,000 deep energy retrofits required per year. Finally, gas or oil heating systems would be replaced with clean technologies like heat pumps.³ The city is also considering requiring new and retrofitted buildings to include solar panels and energy storage systems.⁴

Transportation is another major source of carbon emissions in Boston. The report estimates that 20–30% of trips that are currently taken by car can be shifted to other modes of transportation, including transit, walking, and biking.⁵ To increase transit ridership, designated bus lanes could be deployed to speed trips. Another option to cut pollution from transportation is to assess congestion fees on drivers entering the downtown area, encouraging commuters to use different modes of transportation.⁶

Finally, the city's electricity supply should be shifted to 100% renewable or zero-carbon sources within the next 10 years to reach the city's interim emissions target for 2030. Rooftop solar panels within city limits could generate up to 15% of the electricity consumed in Boston, and the remainder could be supplied by offshore wind farms and other zero-carbon sources in New England.⁷

Following the release of the report, officials in Mayor Marty Walsh's administration convened a working group to draft Boston's next climate action plan, which is expected to be released in the fall of 2019.⁸ Officials have not yet decided which of the report's recommendations will be adopted and prioritized in the city's climate plan.

1. "Metro Mayors Climate Commitment," City of Cambridge, 21 November 2016, <<https://www.cambridgema.gov/CDD/News/2016/11/metromayorsclimatecommitment>>.

2. *Carbon Free Boston Summary Report 2019*, Institute for Sustainable Energy (ISE), Boston University, March 2019, <<https://www.greenribboncommission.org/wp-content/uploads/2019/01/Carbon-Free-Boston-Report-web.pdf>>.

3. Ibid.

4. "Carbon Free Boston Policy Options," City of Boston, <<https://www.boston.gov/departments/environment/carbon-free-boston/carbon-free-boston-policy-options>>.

5. *Carbon Free Boston Summary Report 2019*, Institute for Sustainable Energy (ISE), Boston University, March 2019, <<https://www.greenribboncommission.org/wp-content/uploads/2019/01/Carbon-Free-Boston-Report-web.pdf>>.

6. "Carbon Free Boston Policy Options," City of Boston, <<https://www.boston.gov/departments/environment/carbon-free-boston/carbon-free-boston-policy-options>>.

7. *Carbon Free Boston Summary Report 2019*, Institute for Sustainable Energy (ISE), Boston University, March 2019, <<https://www.greenribboncommission.org/wp-content/uploads/2019/01/Carbon-Free-Boston-Report-web.pdf>>.

8. "Climate Action Plan Update," City of Boston, <<https://www.boston.gov/departments/environment/climate-action-plan>>.