

# Town of Acton Climate Action Plan Blueprint: The Road to Net Zero by 2030



**December 2021**

*Adopted as a living document in the Climate Action Plan process at the Select Board meeting on December 20, 2021.*



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# Acknowledgements

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## Municipal entities

- Acton-Boxborough Regional School District
- Acton Water District
- Departments: Building, Community Resources, Government Affairs/Transportation, Health, Land Use & Economic Development, Municipal Properties, Natural Resources, Planning, Public Works, Police, Fire, Recreation
- Town Manager

## Student organization

- Resource Force

## Committees & Boards

- Acton Community Housing Corporation
- Acton Housing Authority
- Commission on Disabilities
- Diversity, Equity & Inclusion Commission
- Economic Development Committee
- Green Advisory Board
- Select Board
- Transportation Advisory Committee

## Community organizations

- Acton-Boxborough High School Resource Force
- Acton Chinese American Civic Society
- Acton Climate Coalition
- Acton Committee for Housing and Climate
- Acton Conservation Trust
- Congregation Beth Elohim
- Committee for Action on Housing and Climate Change
- Discovery Museum
- Energize Acton
- Green Acton
- Haartz Corporation
- Insulet
- Lion's Club
- Mothers Out Front
- RapsCALLION
- West Acton Village Merchants Association

## MAPC

This plan was developed with support from the Metropolitan Area Planning Council (MAPC), the regional planning agency that serves the people who live and work in the 101 cities and towns of Metro Boston. MAPC's mission is to promote smart growth and regional collaboration. MAPC works toward sound municipal management, sustainable land use, the protection of natural resources, climate change mitigation and adaptation, efficient and affordable transportation, a diverse housing stock, public safety, economic development, and equity and opportunity for all.

# Guiding principles

The process of developing this Blueprint has been informed by multiple guiding principles:

- Centering equity to ensure that those most impacted by climate change will benefit from the transition to net zero emissions and not be negatively impacted
- Using robust and inclusive community engagement and inviting voices that have not been involved in these processes before to be at the table and share their priorities and perspectives
- Rapidly driving down Greenhouse Gas (GHG) emissions within the town and influencing reductions across the region
- Maximizing co-benefits by making clear connections to public health, resilience, affordable housing, and biodiversity central to the plan's strategies
- Addressing low-hanging fruit first and quickly building on that with more ambitious projects, policies, and programs
- Becoming an active voice that pushes for needed state and federal and systems change needed to meet our climate goals
- Celebrating the unique histories and community characteristics that make Acton home for all residents



# What led us here?

Acton has a long history of sustainability, with a passionate and engaged community that continues to push for actions that protect and preserve the Town's rich natural resources and also speed the shift towards cleaner and greener technology and development in response to climate change.

2008

Green Advisory Board established to investigate how Acton can improve our energy efficiency and use of renewable energy sources. The 2008 charter identifies the priority to identify, investigate, build the case for, and prioritize significant energy initiatives for the town and schools.

2014

The Town develops first solar projects: Solar PV landfill (1.59 MW) and solar at DPW roof (100 kw).

2019

Town votes to construct two net-zero buildings: North Fire Station and Douglas Gates Elementary School.

The Town installs receives funding to install electric vehicle (EV) chargers in Town Hall. (We have since installed a total of eight EV chargers.)

The Town, together with the Green Advisory Board (GAB), publishes its first Greenhouse Gas Inventory.

Acton is designated a Green Community becoming eligible for grants, technical assistance, and local support from Regional Coordinators from the Department of Energy Resources (DOER) to reduce energy use and costs by implementing clean energy projects in municipal buildings, facilities, and schools.

2010

Town achieves 20% energy reduction in municipal and school operations. (We have since surpassed this, achieving a 30% reduction.)

2016

2020

At a Special Town Meeting in 2020, the residents vote, nearly unanimously, to declare a Climate Emergency.

...which explicitly states that “members of Acton Town Meeting call on Town government and staff, and all Acton civic groups, businesses, and residents to commit to a climate mobilization effort, with appropriate support from the state and federal governments, to bring net Town-wide carbon emissions to zero as quickly as possible, **with a target date of 2030.**”

Acton hires its first Sustainability Director.  
The Town receives the Leading By Example Award, an award administered by the Department of Energy Resources (DOER) and given to communities that have spearheaded initiatives to reduce the environmental impacts and associated energy costs of government operations.

2021

The Climate Emergency Declaration explicitly states that the “Town of Acton's climate mobilization should also: (1) accelerate **adaptation** and **resilience** strategies in preparation for intensifying local and global climate impacts; (2) protect **trees, forests**, and other **open spaces** because of their ability to draw carbon out of the atmosphere and store it; and (3) ensure that the costs of such mobilization efforts do not unfairly burden those who are economically or socially disadvantaged, and that the benefits of a realized, **sustainable future accrue to all.**”

# What is a CAP?

## Phase I and II of the Town's planning process

A climate action plan (CAP) is a detailed and strategic framework for measuring, planning, and reducing greenhouse gas emissions and related impacts from climate change. The Town of Acton's CAP will build a roadmap for making informed decisions and understanding where and how to achieve the largest and most cost-effective emissions reductions, while also ensuring that the benefits of a sustainable future accrue to all.

This document represents the results of Phase I of Acton's climate action planning process and presents a Blueprint of goals and strategies to guide Acton's work, strongly informed by a robust and inclusive community engagement process. In the first half of 2022, the Town will move into Phase II of the climate action planning process. This phase will include hiring an outside expert to conduct technical analysis on the draft strategies to help project potential GHG reductions, costs, and benefits of each strategy. The Town and the Acton-Boxborough Regional School District will also work with a vendor to complete and Electrification Roadmap, an analysis of priorities and action steps for electrification of seven key existing public municipal and school buildings. Phase II will be informed by additional opportunities for community engagement as the full CAP is developed. The CAP will serve as a living document to guide the Town's work towards meeting its net zero by 2030 goal.

## Massachusetts context

Acton's Climate Action Blueprint comes as the Commonwealth enacted a historic "Act creating a next-generation roadmap for Massachusetts Climate Policy" in March of 2021. Among its provisions, the Act codified the state's target of achieving net zero greenhouse gas emissions by 2050 and raised the 2030 target to a 50% reduction in emissions levels. The Roadmap also defined Environmental Justice (EJ) populations for the first time in state statute and requires more outreach and engagement from state agencies enacting policies and programs that impact EJ communities. The Act increased the state's Renewable Portfolio Standard (RPS), requiring 40% of the state's electricity to come from renewable sources by 2030, and also significantly increased offshore wind procurements for the state. The Roadmap also requires the state to establish a new opt-in net zero stretch code for municipalities and required that the Mass Save program includes the social cost of carbon in its cost benefit analyses, rather than just energy savings.

While this legislation brings major and important changes to the state's climate policy, its provisions are not strong enough to support Acton's net zero by 2030 goal. As such, this Blueprint includes state and federal policy advocacy strategies throughout as an essential component to reaching the community's climate goals.

# Definitions

**Greenhouse gases (GHGs):** are gases that contribute to the greenhouse effect by absorbing infrared radiation. Examples include carbon dioxide, methane, and chlorofluorocarbons.

**Renewable Energy Credit (REC):** One REC is created when an eligible renewable energy source generates one megawatt-hour (MWh) of electricity for the grid. A REC represents the environmental (e.g. non-energy) benefits of the energy generated. MA Class I RECs are from commercial renewable energy operations built after 1997 in New England that generate electricity using solar photo voltaic, solar thermal electric, wind energy, small hydropower, landfill methane and anerobic digester gas, marine or hydrokinetic energy, geothermal energy, and eligible biomass fuel. For more information on Class I RECS in Massachusetts, please visit: <https://www.mass.gov/service-details/program-summaries>.

**Net Zero:** The CAP Blueprint working definition of Net Zero means reducing GHG emissions as much as possible and removing or offsetting any remaining emissions.

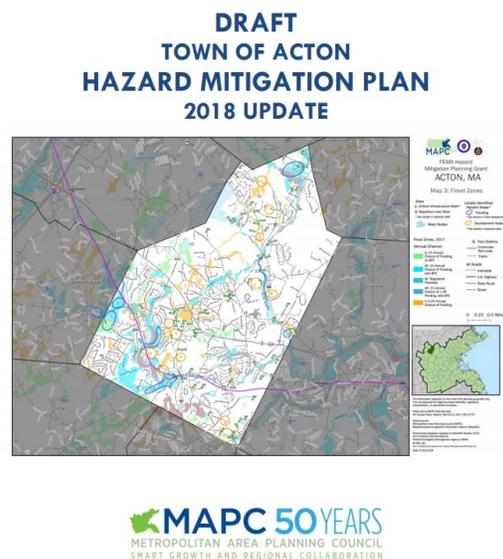
*Other terms will be defined in the text.*

# Resilience

In addition to the CAP Blueprint, there are three different processes to address resilience. Together, these four plans (Hazard Mitigation Plan, Municipal Vulnerability Preparedness Plan, Emergency Management Plan and the Climate Action Plan) will encompass the Town's climate adaptation and mitigation strategies. In the spring we will begin the Hazard Mitigation Plan, which will incorporate climate change impacts.

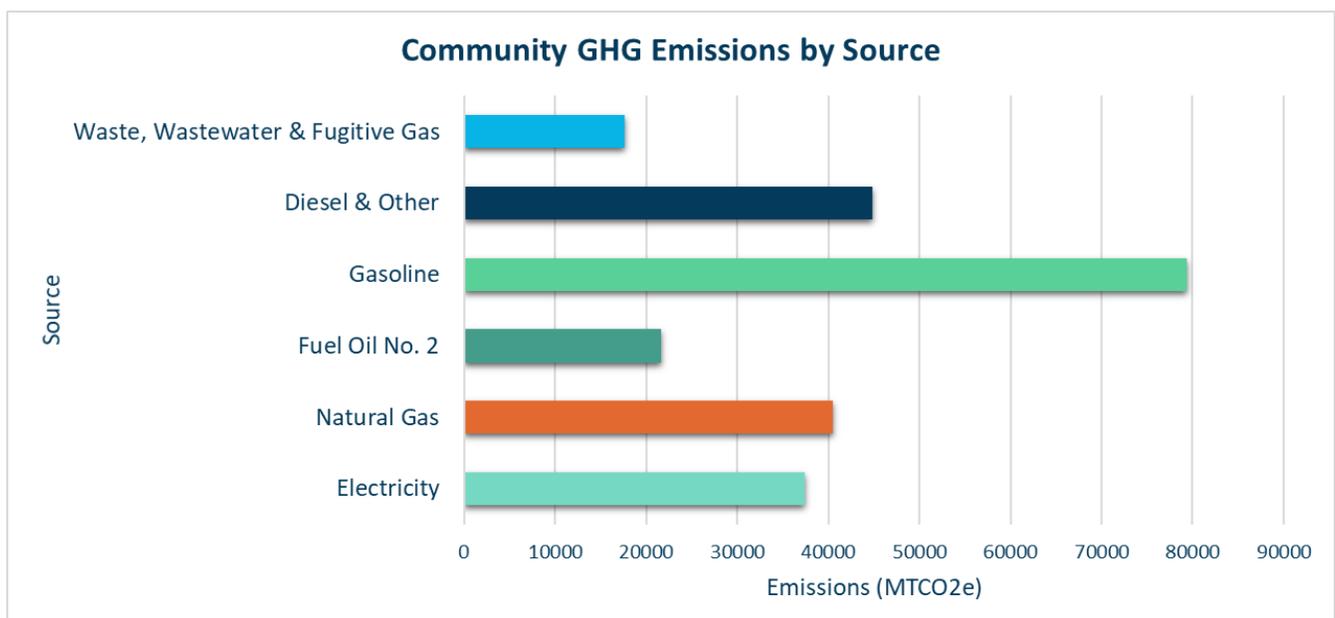
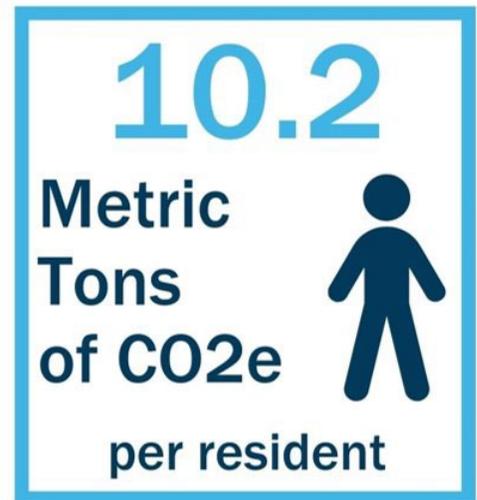
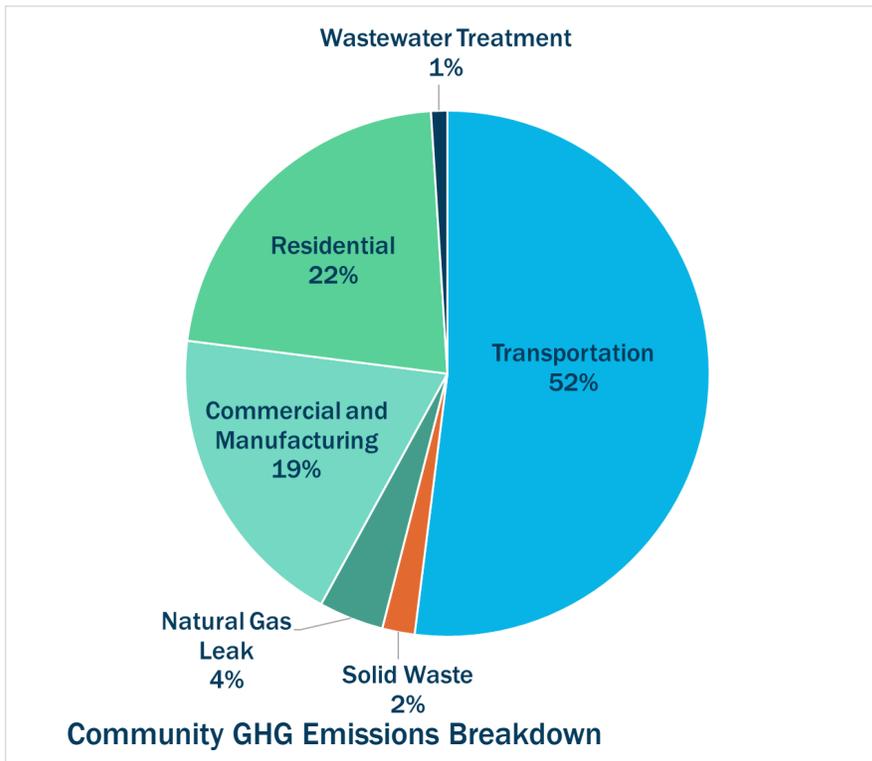
**Municipal Vulnerability Preparedness (MVP) Plan, 2018:** <https://www.acton-ma.gov/DocumentCenter/View/5022/2018-MVP-Report>

**Hazard Mitigation Plan, 2018:** <https://www.acton-ma.gov/DocumentCenter/View/5023/2018-Hazard-Mitigation-Plan-DRAFT-5-30-18>



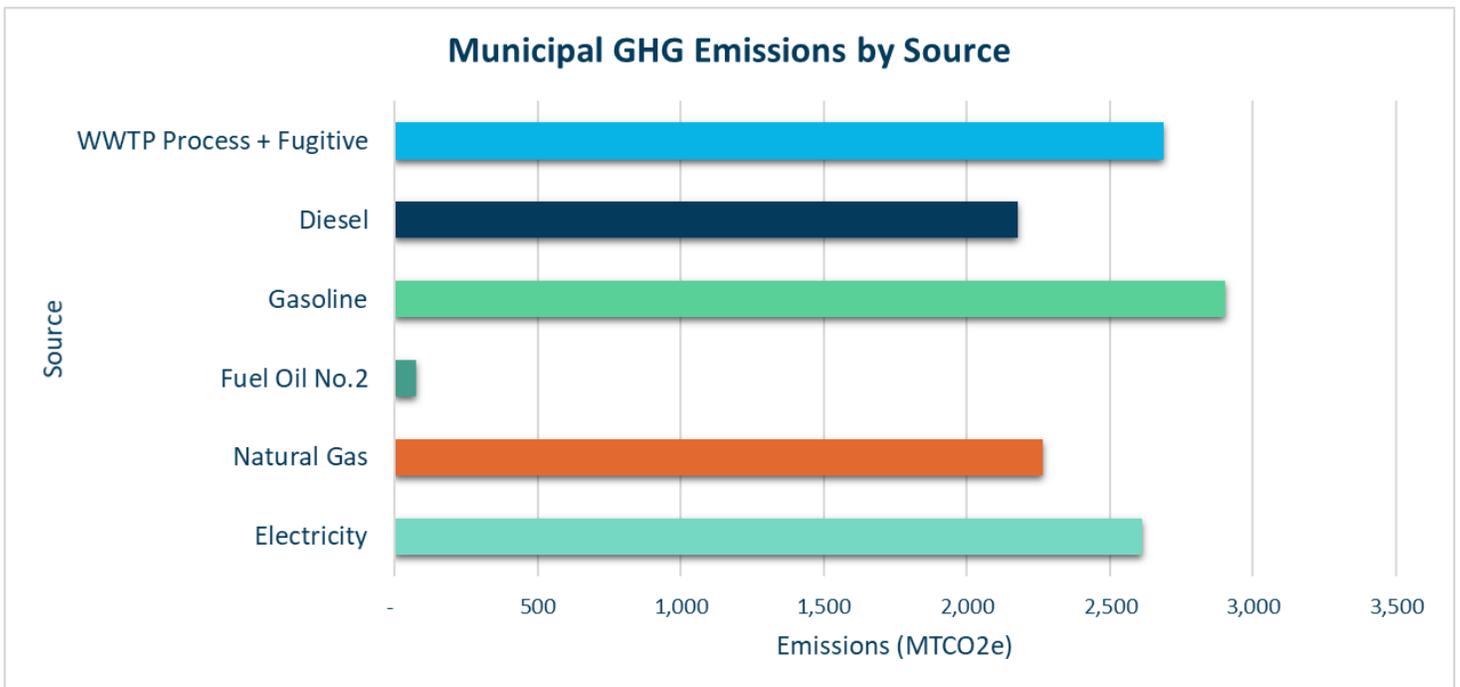
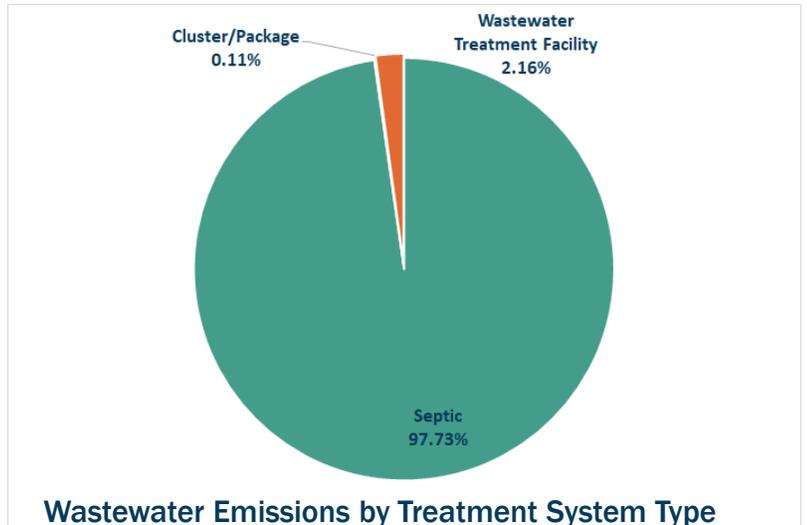
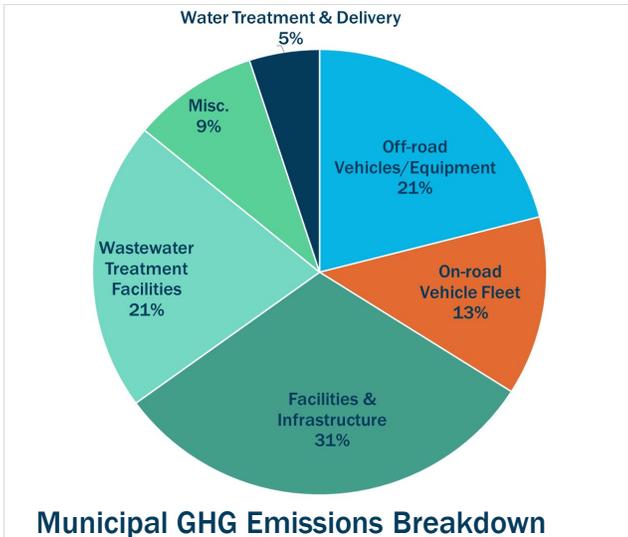
# Community-wide emissions in Acton

Together with the Town, the Green Advisory Board (GAB) led the development of a greenhouse gas inventory in 2019, which includes community-wide emissions as well as municipal emissions. The Town emitted 241,722 metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e) and municipal operations.



# Municipal emissions in Acton

The Town of Acton property, Acton-Boxborough Regional School District, and Acton Water District accounted for 12,722 MTCO<sub>2</sub>e of these emissions.

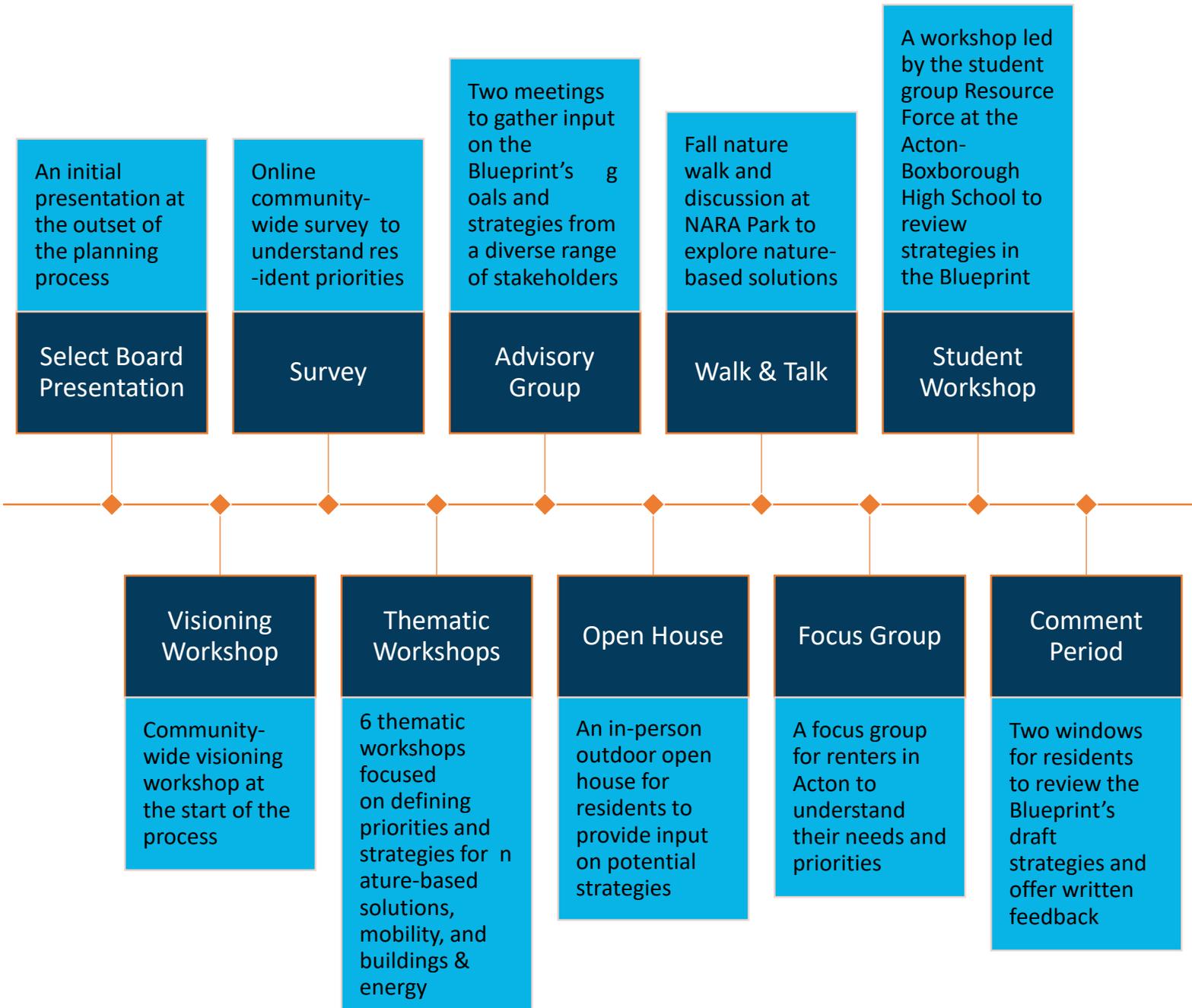


## Carbon sequestration rate

A tool developed by the USDA Forest Service and partners called [i-Tree](#) allows for cities and towns to estimate the canopy cover and carbon sequestered annually from the trees within its boundary. Based on a statistical estimate using a randomly selected points method, Acton has a 61% tree/shrub canopy cover, which translates to 9,050 Metric Tons of Carbon that is sequestered annually.

# Engaging the community

Acton's Climate Action Blueprint sought to inclusively engage the public during every step of the planning process. Multiple means of public engagement methods were utilized to create this plan, which included: public workshops, public surveys, flyers, and social media. In collaboration with MAPC a total of 13 community events were held between June 30th, 2021, and December 10th, 2021. Due to the COVID-19 pandemic most of the events took place in an online format for consideration of the safety of all residents and staff. Engagement included regular communication with residents via a newsletter from the Town's Sustainability Director and website opportunities



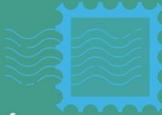
## Visioning Workshop

The first public engagement event for the CAP saw over 60 participants in the online Zoom Workshop. Participants were asked to write a postcard from their future self to gather input on their vision for Acton. The specific prompt was:

*The year is 2040 and you are writing a postcard from your future self to your current self in 2021. What happened in 2030? And what does Acton look like now in 2040?*



"2030 was a good year. The community has finally reconciled many competing interests and has been able to develop a shared vision for the future. By 2040 that shared vision has begun to flourish where housing inequity has been addressed, renewable energy is abundant, and a sustainable balance of land use has been achieved. With the community living within its financial and natural resource means, the population is happy, healthy, and more productive."



"Our generation of young people mobilized to make widespread change in Acton and beyond. Quickly others followed suit and we now live in a world where climate change is not at the forefront of our minds. The principles of JEAO (justice, equity, and anti-oppression), were prioritized in our change-making, causing the climate movement to truly be representative of all people. Acton has reached net-zero carbon emissions by electrifying buildings, making a greener grid, and revolutionizing transportation. Everyone now has the option to travel on convenient and affordable public transit. And this only happened because organizers, policymakers, and everyday people came together to fight for the livable future we deserve."



"Well I'd like to begin with the fact that Acton has become a town to be proud of. The efforts of the Climate Action Plan task force have not gone to waste! In 2030 many of the goals of the CAP were fulfilled and we now have greener homes because of eco-friendly building codes, and most homes are electrified. The town has also built more sidewalks and bike paths along the roads making foot traffic safer! There is also a lot more public transport and most of them rely on renewable energy sources. The town has also built more parks similar to Nara Park which allows for more interaction between residents in Acton!"

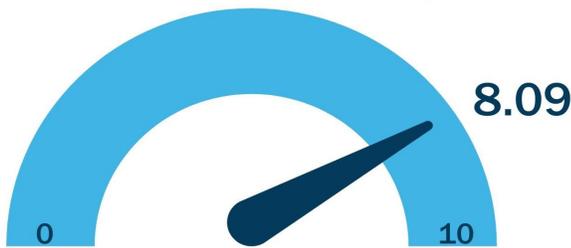
## Community-wide survey results

386 residents completed the community-wide survey available from June 10 to September 20, 2021. Residents were asked to identify priorities from a list of actions. Over 200 respondents listed the following actions as high priority: Make buildings more energy efficient; Coordinate with utilities to repair gas leaks; Incorporate green infrastructure in new development projects; and Advocate at the state and national level for more programs, policies, and funding that move the Commonwealth to net zero faster.

Other survey results included:

How worried are residents of Acton\* about climate change?

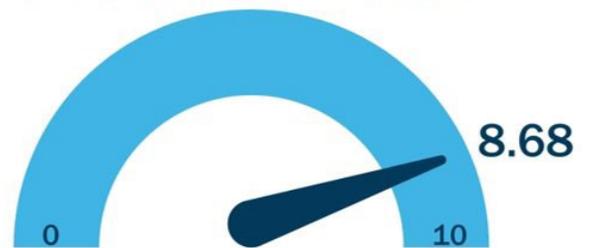
"0 = not at all" and "10 = most urgent."



\*based upon weighted average from community-wide survey

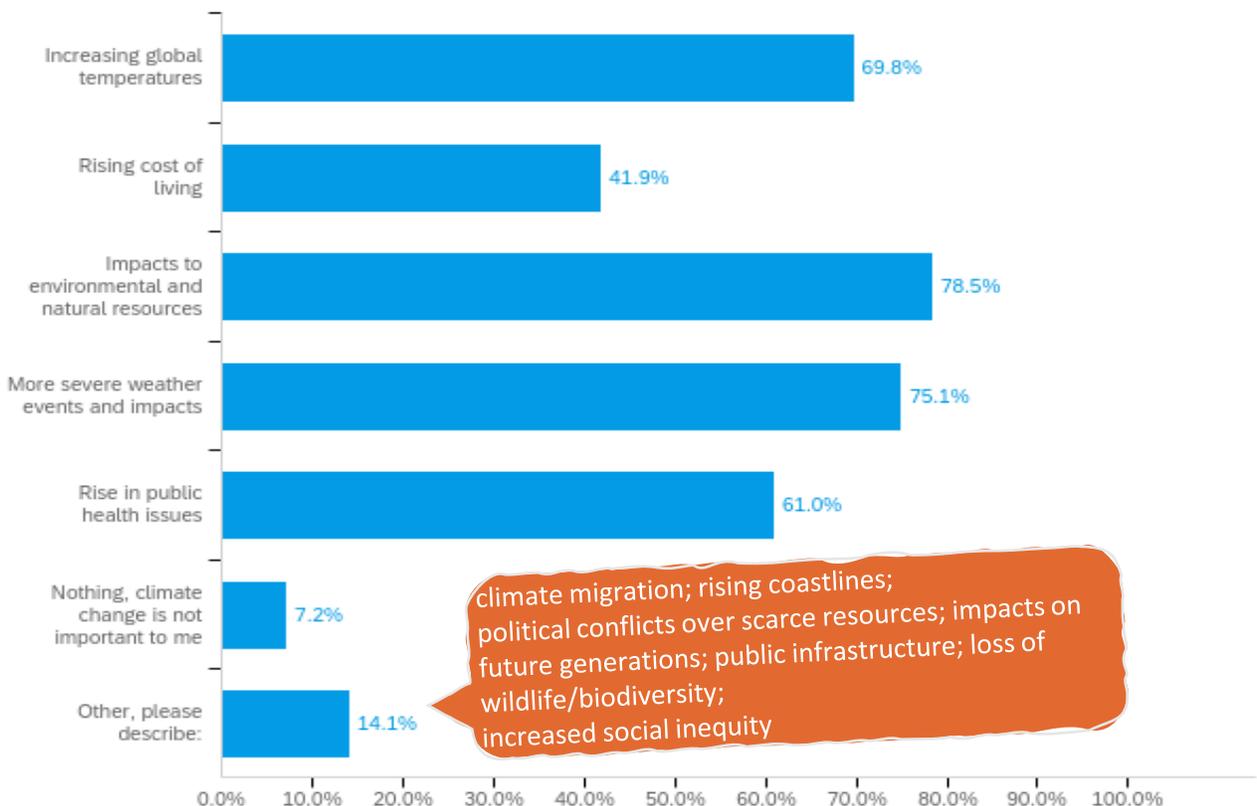
How quickly do residents of Acton\* think we need to take action on climate change in Acton?

"0 = not at all" and "10 = most urgent."



\*based upon weighted average from community-wide survey

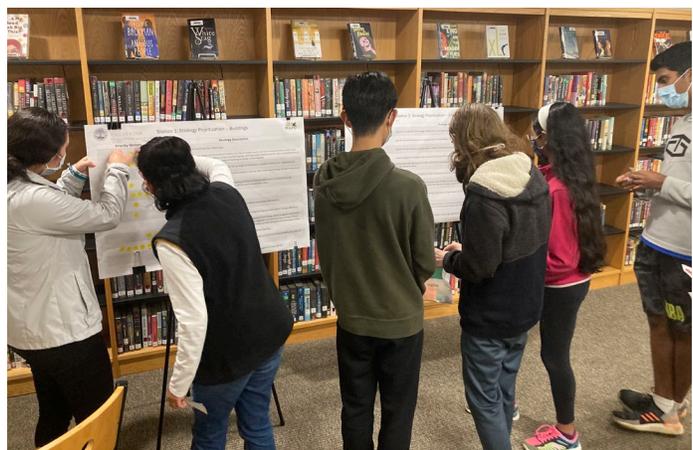
## WHAT IS MOST IMPORTANT TO YOU ABOUT CLIMATE CHANGE? (377 Responses)



## Acton-Boxborough Regional High School Resource Force student team

The Resource Force circulated a survey, which received 242 responses, to solicit feedback on four themes of the CAP: Mobility, Buildings, Energy, and Nature-based Solutions. The survey results showed that 88.5% of students believe we need to act on climate change very quickly; 105 of the students listed negative consequences in the future as to why climate action matters to them, and 69 students listed the reason of wanting to protect the planet and the environment. During the survey, respondents were asked to select their top three priorities for each CAP sector, and the results are shown below:

<p><b>Top Priorities for Mobility</b></p> <ol style="list-style-type: none"> <li>1. Improve town walkability - 152 (62.8%)</li> <li>2. Improve biking infrastructure - 143 (59.1%)</li> <li>3. Electrify town-owned vehicles - 117 (48.3%)</li> <li>4. Encourage electric vehicles - 105 (43.4%)</li> </ol>	<p><b>Top Priorities for Nature-based Solutions</b></p> <ol style="list-style-type: none"> <li>1. Reforestation - 170 (70.2%)</li> <li>2. Protect drinking water - 91 (37.6%)</li> <li>3. Encourage composting - 90 (37.2%)</li> <li>4. Protect and improve local rivers - 90 (32.7%)</li> </ol>
<p><b>Top Priorities for Buildings</b></p> <ol style="list-style-type: none"> <li>1. Electrify all School and Town Buildings - 162 (66.9%)</li> <li>2. Clean electric heating, air conditioning, and water heating in Acton homes - 120 (49.6%)</li> <li>3. Affordable housing using renewable energy - 109 (45%)</li> <li>4. Update building codes so new buildings must be built with clean energy - 104 (43%)</li> </ol>	<p><b>Top Priorities for Energy</b></p> <ol style="list-style-type: none"> <li>1. More wind/solar energy to power the town - 175 (72.3%)</li> <li>2. Make renewable energy affordable for consumers - 146 (60.3%)</li> <li>3. Incentives for home solar panels - 97 (40.1%)</li> <li>4. Repair gas pipe leaks - 94 (38.8%)</li> </ol>



*Students provide input on the CAP at the workshop led by Resource Force.*

# Buildings and Housing

**Goal 1:** Commercial and industrial buildings and homes in Acton are built and retrofitted to be energy efficient, net zero carbon, healthy, affordable, and resilient.

**Goal 2:** Acton actively influences policies at the state and federal level to support rapid and affordable building decarbonization.

## Update Acton's zoning and planning to diversify the town's housing options for people of all means, prioritizing access, affordability, and sustainability

### **BH1: Adopt zoning changes to allow for broader and more multifamily housing choices and flexible approaches to achieve housing affordability and accessibility.**

This includes allowing smaller-scale units, Accessory Dwelling Units (ADUs) of various sizes, and mixed-used developments such as apartments over commercial businesses. Ensure zoning aligns with land conservation goals by working closely with Natural Resources Department and stakeholders in developing these changes. Explore ways to use zoning to encourage housing development to be as sustainable as possible.

### **BH2: Develop an actionable plan for affordable housing and mixed-use development within 1/2 mile of public transit and near existing business centers and village districts.**

In addition to alignment with the Planning Department, Town's Housing Production Plan, and new state policies, ensure sustainable land use practices, access to green spaces, and improved infrastructure for bikes and pedestrians are part of these developments. Prioritize rehabilitation or reuse of existing buildings, where feasible.

## Support residents and businesses to improve the energy efficiency of their homes and buildings and transition to clean heating and cooling

### **BH3: Work with Mass Save to improve outreach about financial and technical assistance available for landlords, condo associations, and renters to improve their homes' energy efficiency and switch to efficient electrified heating and cooling systems.**

Mass Save is a ratepayer funded program that provides incentives and information to improve building energy efficiency. Mass Save programs will continue to evolve and focus more on reducing carbon emissions in existing buildings in alignment with the State's climate goals. This effort will include researching mechanisms to ensure that these programs do not negatively impact the cost of living for renters.

### **BH4: Expand outreach about the Property Assessed Clean Energy (PACE) program to increase program participation.**

The PACE program allows a property owner to take a transferrable lien on their property and undertake energy efficiency and renewable energy upgrades, which saves money on energy bills, with a longer payback period of up to 20 years. Eligible buildings include commercial, industrial, multifamily properties with five or more units, and buildings owned by nonprofits. This effort will include researching mechanisms to ensure that these programs do not negatively impact the cost of living for renters.

### **BH5: Pilot and implement geothermal micro-districts that can make it more affordable to transition to electric heating and cooling systems at scale.**

A geothermal micro-district connects adjacent buildings using a shared ground source heat pump system to provide fossil fuel free heating and cooling.

### **BH6: Explore pursuing an aggregated triple electrification model in Acton to decarbonize buildings while improving energy efficiency and adding onsite renewables.**

An aggregated electrification model uses a combination of private and public funding sources to raise capital and offer low-interest loan and lease programs to help residents gradually improve the energy performance of their homes. In this model, Acton will consider hiring a third-party vendor to provide a financing strategy and retrofit services for buildings that include options such as energy efficiency improvements, electrification of home heating and cooling systems, onsite renewables and storage, and smart technologies. The program will include mechanisms for offering a zero-cost or very low-cost financial product for low- and moderate-income residents.

#### ***Spotlight Corner***

Ithaca, NY developed a Building Energy Efficiency Retrofit and Thermal Load Electrification Program. The program will use a combination of incentives from the State of New York, combined with private financing, to offer affordable financing and services for residents and businesses to perform deep energy retrofits, combining energy efficiency, electrification, and onsite renewables. -

<http://www.cityofithaca.org/DocumentCenter/View/13214/City-of-Ithaca-Retrofitting-Electrification-RFP>

## Lead by example to improve the energy efficiency of the Town's municipal buildings and schools and transition that building stock to net zero emissions

### **BH7: Adopt a net zero carbon standard for new municipal buildings and major retrofits and town-funded affordable housing.**

The Town will research and set a policy and timeframe for all municipal buildings and town-funded affordable housing to be net zero emissions. This will include establishing trigger points, such as retrofits at a certain threshold and new construction, that require these buildings to transition to net zero emissions. The Electrification Roadmap developed by both the Town and the Acton-Boxborough Regional School District will provide a clear pathway towards this policy. Explore strategies and new innovations to achieve a complete zero standard for a new building or major retrofits.

### **BH8: Complete retro-commissioning and energy efficiency improvements for all buildings owned by the Town of Acton and Acton-Boxborough Regional School District.**

As a near-term step, the Town will assess all of its municipal and school building stock, providing retro-commissioning services to ensure building equipment is operating at peak efficiency and pursue all cost-effective energy upgrades. This strategy will be followed by Strategy E4.

## Advocate for policy changes and resources at the state and federal level that will enable the rapid and affordable transition to carbon free buildings in Acton

### **BH9: Exclude fossil fuel use in new construction projects and major retrofits across Acton, with exceptions as appropriate.**

Acton will advocate for and pursue approval from the state legislature of its home rule petition to require that all new building construction or significant renovation projects qualify as fossil-fuel free or to obtain a waiver (emergency generators and central hot water for large buildings would be exempt).

### **BH 10: Advocate for more incentives for electric heating and cooling from Mass Save.**

As the state's ratepayer funded program that provides incentives for energy efficiency, Mass Save is the primary mechanism for funding building improvements in the Commonwealth. Acton will participate in the monthly Energy Efficiency Advisory Council (EEAC) meetings that advise Mass Save Program Administrators and advocate during the Three-Year Planning processes for greater incentives for building electrification and decarbonization.

### **BH11: Advocate for financial assistance and low-cost financing options from the state and federal government to support triple building electrification.**

Electrifying all of Acton's building stock will require greater state and federal incentives. Acton will build relationships with organizations that advocate on behalf of municipalities for building decarbonization, and also use its direct relationships with the Town's state and local representatives to discuss this priority. This work will include advocating for innovative finance mechanisms, such as a state Green Bank, that can incentivize and/or support residents, business owners, and the Town in making more triple electrification investments – combining energy efficiency, electrification, and onsite renewable energy wherever feasible – with affordable financing. These efforts can directly support Strategy BH6.

### **BH12: Advocate for a net zero building code.**

Acton will become an active participant in the state's building code process by monitoring and advocating as part of the MA Department of Energy Resources (DOER) and Board of Building Regulations and Standards (BBRS) processes for developing the state's new net zero stretch energy code approved in the Next Generation Climate Roadmap Bill. Once finalized, Acton will vote to opt into the new stretch code and, if needed, continue to advocate for a stronger net zero stretch code.

#### ***Spotlight Corner***

The Home Energy Efficiency Team (HEET) nonprofit is working with Eversource to pilot its GeoGrid concept in the Greater Boston region. A GeoGrid is geomicrodistrict that uses a network of ground source heat pumps to heat and cool adjacent buildings. - <https://heet.org/geogrid/>

**BH13: Expand program to track gas leaks and advocate to the utility for fixes for the most major or dangerous gas leaks.**

The Town will keep an up-to-date catalogue tracking gas leaks in Acton that are Grade 1, 2, or Grade 3 with Significant Environmental Impact (SEI) and larger than 2,000 ft<sup>2</sup>. Key municipal staff will continue to coordinate municipal paving, water, and sewer infrastructure planning to align with needed gas leak repairs. The Town will continue to attend Multi-Town Gas Leaks Initiative meeting with National Grid to review and advocate for needed repairs to dangerous leaks or those of SEI, while avoiding replacing gas infrastructure that is not needed. The Town will also prioritize pursuing strategies in the Buildings and Housing section of this Blueprint to accelerate that transition away from natural gas heating and cooling systems.



*Insulation of the Memorial Library attic.*

# Buildings and Housing



ID	Action	Co-Benefits	Action Type	Implementation Timeline	Municipal Lead Implementers	Potential Community Partners
<b>BH1</b>	Adopt zoning changes to allow for broader and more multifamily housing choices and flexible approaches to achieve housing affordability and accessibility.	<ul style="list-style-type: none"> <li>Preserves green and open spaces</li> <li>Centers equity and environmental justice</li> <li>Scalable or transferable to other neighborhoods;</li> </ul>	Policy /Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>Planning</li> <li>Natural Resources</li> <li>ACHC</li> <li>Acton Water District</li> </ul>	<ul style="list-style-type: none"> <li>Citizens' Housing and Planning Association</li> <li>Housing and Community Development</li> <li>Community planning organizations</li> <li>Acton Conservation Trust</li> <li>Committee for Action on Housing and Climate Change</li> <li>Other local stakeholders</li> </ul>
<b>BH2</b>	Develop an actionable plan for affordable housing and mixed-use development within 1/2 mile of public transit and near existing business centers and village districts.	<ul style="list-style-type: none"> <li>Preserves green and open spaces</li> <li>Centers equity and environmental justice</li> <li>Scalable or transferable to other neighborhoods</li> <li>Improves public health</li> </ul>	Policy /Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>AHA</li> <li>Planning</li> <li>Recreation</li> <li>Economic Dev.</li> <li>ACHC</li> <li>Transportation</li> <li>Sustainability</li> <li>Acton Water District</li> </ul>	<ul style="list-style-type: none"> <li>Habitat for Humanity</li> <li>Citizens' Housing and Planning Association</li> <li>Housing and Community Development</li> <li>The Nature Conservancy</li> <li>Committee for Action on Housing and Climate Change</li> <li>Other local stakeholders</li> </ul>
<b>BH3</b>	Work with Mass Save to improve outreach about financial and technical assistance available for landlords, condo associations, and renters to improve their homes' energy efficiency and switch to efficient electrified heating and cooling systems.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Centers equity and environmental justice</li> <li>Improves public health</li> </ul>	Training /Education/ Outreach	Short	<ul style="list-style-type: none"> <li>AHA</li> <li>Sustainability</li> <li>Community Resources</li> </ul>	<ul style="list-style-type: none"> <li>Committee for Action on Housing and Climate Change</li> <li>Landlords</li> <li>Condo association management organizations</li> <li>Mass Save</li> <li>All In Energy</li> <li>Energize Acton</li> </ul>

## Buildings and Housing (cont.)

ID	Action	Co-Benefits	Action Type	Implementation Timeline	Municipal Lead Implementers	Potential Community Partners
BH4	Expand outreach about the Property Assessed Clean Energy (PACE) program to increase program participation.	<ul style="list-style-type: none"> <li>Centers equity and environmental justice</li> <li>Supports "green" workforce developments</li> </ul>	Training /Education/ Outreach	Short	<ul style="list-style-type: none"> <li>AHA</li> <li>Sustainability</li> <li>Economic Dev.</li> </ul>	<ul style="list-style-type: none"> <li>Committee for Action on Housing and Climate Change</li> <li>Landlords</li> <li>Condo association management organizations</li> <li>Business owners</li> </ul>
BH5	Pilot and implement geothermal micro-districts	<ul style="list-style-type: none"> <li>Produces local energy</li> <li>Improve local resilience</li> <li>Scalable or transferable to other neighborhoods</li> <li>Improves public health</li> <li>Supports "green" workforce developments</li> </ul>	Feasibility assessment /Pilot program	Medium	<ul style="list-style-type: none"> <li>Building</li> <li>Planning</li> <li>Public Works</li> <li>Green Advisory Board</li> <li>Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>HEET</li> <li>Eversource</li> <li>MassCEC</li> </ul>
BH6	Explore pursuing an aggregated triple electrification model in Acton to decarbonize buildings while improving energy efficiency and adding onsite renewables.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Centers equity and environmental justice</li> <li>Scalable or transferable to other neighborhoods</li> <li>Supports "green" workforce developments</li> <li>Improves public health</li> </ul>	Feasibility assessment /Pilot program	Medium	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Planning</li> <li>Building</li> <li>Green Advisory Board</li> </ul>	<ul style="list-style-type: none"> <li>Eversource</li> <li>MA DOER</li> <li>MassCEC</li> <li>Communities in the MAGIC subregion/ MAPC region</li> </ul>
BH7	Adopt a net zero carbon standard for new municipal buildings and town-funded affordable housing.	<ul style="list-style-type: none"> <li>Centers equity and environmental justice</li> <li>Improves public health</li> </ul>	Policy /Regulations/ Standards	Long	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Municipal Properties</li> <li>Building</li> <li>Planning</li> <li>AHA</li> </ul>	<ul style="list-style-type: none"> <li>Building practitioners</li> <li>Housing developers</li> <li>Eversource</li> </ul>
BH8	Complete retro-commissioning and energy efficiency improvements for all buildings owned by the Town and ABRSD.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Scalable or transferable to other neighborhoods</li> <li>Supports "green" workforce developments</li> </ul>	Capital Improvement	Medium	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Municipal Properties</li> <li>ABRSD</li> <li>Green Advisory Board</li> </ul>	<ul style="list-style-type: none"> <li>Eversource</li> <li>National Grid</li> <li>MA DOER</li> </ul>
BH9	Exclude fossil fuel use in new construction projects and major retrofits across Acton, with exceptions as appropriate.	<ul style="list-style-type: none"> <li>Centers equity and environmental justice</li> <li>Improves public health</li> </ul>	Policy /Regulations/ Standards	Medium	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Building</li> <li>Planning</li> <li>Engineering</li> <li>Green Advisory Board</li> </ul>	<ul style="list-style-type: none"> <li>Building practitioners</li> <li>Housing developers</li> <li>Mass Save</li> <li>Acton Climate Coalition</li> </ul>

## Buildings and Housing (cont.)

ID	Action	Co-Benefits	Action Type	Implementation Timeline	Municipal Lead Implementers	Potential Community Partners
BH10	Advocate for more incentives for electric heating and cooling from Mass Save.	<ul style="list-style-type: none"> <li>Centers equity and environmental justices</li> <li>Improves public health</li> </ul>	Advocacy	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Green Advisory Board</li> <li>Select Board</li> </ul>	<ul style="list-style-type: none"> <li>Building practitioners</li> <li>Housing developers</li> <li>Eversource</li> <li>Mass Save</li> </ul>
BH11	Advocate for financial assistance and low-cost financing options from the state and federal government to support triple building electrification.	<ul style="list-style-type: none"> <li>Centers equity and environmental justice</li> <li>Improves public health</li> </ul>	Advocacy	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Green Advisory Board</li> <li>Select Board</li> </ul>	<ul style="list-style-type: none"> <li>Acton Climate Coalition</li> </ul>
BH12	Advocate for a net zero building code.	<ul style="list-style-type: none"> <li>Improves public health</li> </ul>	Advocacy	Medium	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Green Advisory Board</li> <li>Select Board</li> </ul>	<ul style="list-style-type: none"> <li>Acton Climate Coalition</li> </ul>
BH13	Expand program to track gas leaks and advocate to the utility for fixes for the most major or dangerous gas leaks.	<ul style="list-style-type: none"> <li>Improves air quality</li> <li>Improves public health</li> <li>Improves local resilience</li> </ul>	Policy /Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Public Works</li> <li>GIS</li> </ul>	<ul style="list-style-type: none"> <li>HEET</li> <li>MassCEC</li> <li>Mother's Out Front</li> <li>National Grid</li> </ul>

# Energy

**Goal 1:** Acton's electricity is fossil-fuel free, renewable, reliable, and affordable.

**Goal 2:** Acton's residents, businesses, and municipal government use local and locally owned renewable energy from New England whenever possible.

## Provide residents with clean energy through Acton Power Choice

### **E1: Make 100% renewable energy default option in Acton Power Choice.**

Acton Power Choice (APC) is the town's green municipal aggregation program. Green municipal aggregation allows a town to determine where its electricity comes from and to include more electricity from high-quality renewable sources in New England than is required by state law, Class I Renewable Energy Credits (RECS). Acton will develop a policy for phasing up the amount of renewable energy in APC to 100% by 2030 and include a subsidy or other options to ensure affordability for lower-income households. Acton's next opportunity to change its APC options comes in September 2022, for the next contract period. The next two opportunities will likely be in 2025 and 2028, for the two subsequent contract periods.

## Increase local clean energy access and adoption for all Acton residents

### **E2: Partner with solar developers to create community solar program options for Acton residents and provide a participation pathway for low-income residents.**

Acton residents who rent or do not have rooftops appropriate for solar energy can participate in community solar. Community solar uses virtual net metering to allow multiple energy users to subscribe to an offsite solar project and receive credits for a portion of the energy generated on their bill. The town will evaluate options for hosting community solar on town-owned properties or privately owned sites and to create models for participation that require no upfront cost for Acton residents.

### **E3: Run a Solarize+ campaign to help residents procure solar, storage, air source heat pumps, electric vehicle charging stations, and other clean energy technologies.**

Solarize+ programs identify and vet qualified vendor installers and offer residents and businesses access to bulk purchasing discounts on those technologies. The Town will include an income-tiered pricing model or explore other incentives for lower-income residents to encourage participation.

### **E4: Create an Energy Advocate position within the sustainability office or develop a program to provide energy advocacy support services for residents.**

The Town will create a staff position or program that focuses on providing greater access to clean energy solutions, energy efficiency upgrades, and electric heating and cooling upgrades for residents. The position or program will focus especially on outreach to increase clean energy access via state programs and incentives for those who have faced historic barriers to participation, including renters, low-income residents, English-isolated households, residents of multifamily buildings, small businesses, and historical or aging buildings. The Town will explore options for partnering with a nonprofit organization or with neighboring communities to support this position.

### **E5: Create a pilot program for solar energy on multifamily buildings that benefits residents.**

The Town will research and pursue development of a pilot program to help bring solar energy to more multifamily buildings in Acton. This may include issuing a Request for Information to identify potential developers to pursue these projects and outreach to landlords and multifamily building residents to raise awareness about the opportunity solar provides. Wherever possible, the Town will encourage and provide support to projects that share the benefits of solar with renters in multifamily buildings.

## Increase local clean energy access and adoption for all Acton residents

### **E6: Maximize the installation of renewable energy and energy storage systems wherever feasible on all municipal buildings and Acton-Boxborough Regional School District buildings.**

As part of its effort to pursue triple electrification of municipal buildings, the Town will review the potential for onsite renewable energy paired with energy storage at all municipal buildings and Acton-Boxborough Regional School District buildings. This work will also include investigating the potential of microgrids. The Town will pursue these installations wherever feasible.

**E7: Move the town's electricity supply to 100% renewable energy.**

The Town will review its competitive energy supply contracts for its municipal buildings and update its energy sourcing to be 100% renewable energy from Class I New England RECs.

**Advocate for policy changes and infrastructure investments that more rapidly move the state to a 100% clean energy supply.**

**E8: Advocate for greater clean energy investments at the state level.**

Acton will become an active voice advocating for needed state policy change to support the transition to 100% clean energy. This will include supporting a stronger Renewable Portfolio Standard coupled with greater amounts of utility-scale energy storage, increased procurement of offshore wind, and needed upgrades to the regional grid infrastructure to support increased transmission and distribution needs anticipated with the transition of building and transportation electrification. The Town will join relevant coalitions to stay up-to-date on policy opportunities and advocacy and to amplify its voice alongside other aligned municipalities and organizations. Acton will also explore options to exclude electricity supplied from incinerators as part of the RPS.

***Spotlight Corner***

The City of Newton hired an Energy Coach to work with city residents, builders, and contractors to encourage reductions in greenhouse gases in homes and buildings via weatherization and electrification. This position also organizes and supports volunteer Citizen Energy Coaches who assist with this outreach and education:

<https://newtonenergycoach.org/meet-the-coaches/>

**E9: Support the development of state or federal incentives to promote investments in renewable energy.**

The Town will advocate incentives that support renewable energy development and that make it easier for local governments and residents to access the full benefits of renewable energy. Current incentive programs for renewable energy projects at the state level (e.g., the SMART program) require that Renewable Energy Credits (RECs) generated be retained by the utilities and do not allow project off-takers to retain a project's RECs if they want to access the program incentives. Federal solar incentives, such as the Investment Tax Credit (ITC), do not encourage direct community investment or ownership of renewable energy and advocating for a change to a direct pay model for the ITC would enable greater investment and project development. The town would join relevant policy advocacy coalitions to encourage state and federal policy change that enables greater renewable energy development, community ownership, and local benefits.

**E10: Build stronger utility relationships and monitor and advocate for policy changes needed to the Public Utilities Commission (PUC) discussions.**

Advocate for regulatory changes in utility electric rate structures that allow for and incentivize clean energy technologies such as electric vehicles and air source heat pumps and encourage vehicle to grid integration. Work with Eversource to ensure sufficient distribution capacity to fully electrify Acton, and to interconnect all feasible solar, storage, and other clean generation, and approval of microgrid (islanding) projects.

***Spotlight Corner***

The Town of Natick is exploring a policy to phase their green municipal aggregation program to 100% renewable energy by 2030 in tandem with state increases to the Renewable Portfolio Standard.

The City of Boulder, CO has developed a community solar project provide lower cost energy to cost-burdened residents in a manufactured housing community in the city:

<https://bouldercolorado.gov/news/solar-garden-reducing-energy-costs-ponderosa-residents>

# Energy

Short = 1-2 years  
 Medium = 3-5 years  
 Long = 6-10 years

ID	Action	Co-Benefits	Action Type	Implementation Timeline	Municipal Lead Implementers	Potential Community Partners
E1	Make 100% renewable energy default option in Acton Power Choice.	<ul style="list-style-type: none"> <li>• Produces local energy</li> <li>• Centers equity and environmental justice</li> <li>• Supports "green" workforce developments</li> </ul>	Policy /Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>• Sustainability</li> <li>• Green Advisory Board</li> <li>• Select Board</li> </ul>	<ul style="list-style-type: none"> <li>• Green Acton</li> <li>• Resource Force</li> <li>• Acton Climate Coalition</li> </ul>
E2	Partner with solar developers to create community solar program options for Acton residents and provide a participation pathway for low-income residents.	<ul style="list-style-type: none"> <li>• Centers equity and environmental justice</li> <li>• Supports "green" workforce developments</li> <li>• Improves local resilience</li> </ul>	Feasibility assessment/ Pilot program	Medium	<ul style="list-style-type: none"> <li>• Sustainability</li> <li>• AHA</li> <li>• ACHC</li> </ul>	<ul style="list-style-type: none"> <li>• Solar developers</li> <li>• Mass Save</li> <li>• MassCEC</li> <li>• Committee for Action on Housing and Climate Change</li> </ul>
E3	Run a Solarize+ campaign to help residents procure solar, storage, air source heat pumps, electric vehicle charging stations, and other clean energy technologies.	<ul style="list-style-type: none"> <li>• Produces local energy</li> <li>• Improves local resilience</li> <li>• Centers equity and environmental justice</li> </ul>	Financing	Short	<ul style="list-style-type: none"> <li>• Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>• MA DOER</li> <li>• MassCEC</li> <li>• Energize Acton</li> </ul>
E4	Create an Energy Advocate position within the sustainability office or develop a program to provide energy advocacy support services for residents.	<ul style="list-style-type: none"> <li>• Centers equity and environmental justice</li> <li>• Improves local resilience</li> <li>• Improves public health</li> </ul>	Advocacy	Short	<ul style="list-style-type: none"> <li>• Sustainability</li> <li>• Select Board</li> <li>• Green Advisory Board</li> </ul>	<ul style="list-style-type: none"> <li>• Acton Climate Coalition</li> <li>• Committee for Action on Housing and Climate Change</li> </ul>
E5	Create a pilot program for solar energy on multifamily buildings that benefits residents.	<ul style="list-style-type: none"> <li>• Produces local energy</li> <li>• Centers equity and environmental justice</li> <li>• Scalable or transferable to other neighborhoods</li> <li>• Improves local resilience</li> </ul>	Feasibility assessment/ Pilot program	Short	<ul style="list-style-type: none"> <li>• Sustainability</li> <li>• AHA</li> <li>• ACHC</li> <li>• Planning</li> </ul>	<ul style="list-style-type: none"> <li>• Solar developers</li> <li>• MassCEC</li> <li>• Mass Save</li> <li>• Committee for Action on Housing and Climate Change</li> </ul>
E6	Maximize the installation of renewable energy and energy storage systems wherever feasible on all municipal and Acton-Boxborough School District buildings.	<ul style="list-style-type: none"> <li>• Produces local energy</li> <li>• Improves local resilience</li> <li>• Scalable or transferable to other neighborhoods</li> </ul>	Capital Improvement	Medium	<ul style="list-style-type: none"> <li>• Sustainability</li> <li>• ABRSD</li> </ul>	<ul style="list-style-type: none"> <li>• MA DOER</li> <li>• MassCEC</li> <li>• Resource Force</li> </ul>

## Energy (cont.)

ID	Action	Co-Benefits	Action Type	Implementation Timeline	Municipal Lead Implementers	Potential Community Partners
E7	Move the town's electricity supply to 100% renewable energy.	<ul style="list-style-type: none"> <li>• Produces local energy</li> </ul>	Policy /Regulations/ Standards	Medium	<ul style="list-style-type: none"> <li>• Sustainability</li> <li>• Municipal Properties</li> </ul>	<ul style="list-style-type: none"> <li>• Green Acton</li> </ul>
E8	Advocate for greater clean energy investments at the state level.	<ul style="list-style-type: none"> <li>• Produces local energy</li> <li>• Supports "green" workforce developments</li> <li>• Improves local resilience</li> </ul>	Advocacy	Short	<ul style="list-style-type: none"> <li>• Sustainability</li> <li>• Green Advisory Board</li> <li>• Select Board</li> </ul>	<ul style="list-style-type: none"> <li>• MA DOER</li> <li>• MassCEC</li> <li>• Communities in the MAGIC subregion/ MAPC region</li> </ul>
E9	Support the development of state or federal incentives to promote investments in renewable energy.	<ul style="list-style-type: none"> <li>• Produces local energy</li> <li>• Supports "green" workforce developments</li> <li>• Improves local resilience</li> </ul>	Advocacy	Short	<ul style="list-style-type: none"> <li>• Sustainability</li> <li>• Green Advisory Board</li> <li>• Select Board</li> </ul>	<ul style="list-style-type: none"> <li>• MA DOER</li> <li>• MassCEC</li> <li>• Communities in the MAGIC subregion/ MAPC region</li> </ul>
E10	Build stronger utility relationships and monitor and advocate for policy changes needed to the Public Utilities Commission (PUC) discussions.	<ul style="list-style-type: none"> <li>• Produces local energy</li> <li>• Improves local resilience</li> </ul>	Advocacy	Short	<ul style="list-style-type: none"> <li>• Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>• MA DOER</li> <li>• MassCEC</li> <li>• Eversource</li> </ul>

# Mobility

**Goal 1:** All community members have access to safe and affordable transportation choices that will result in zero carbon emission, reduce Vehicle Miles Traveled (VMT), and lead to healthier and stronger communities.

**Goal 2:** Acton neighborhoods, commercial, and community centers are interconnected through infrastructure improvements and redesign that allows reliable and multiple modes of transportation.

**Goal 3:** Acton actively influences programs and policies that support zero emission, affordable, accessible, and reliable regional transportation systems

## Advocate for community transit service needs, bus stop upgrades, bus rapid transit, and electrification of the regional transit system

**M1: Advocate to electrify the Massachusetts Bay Transportation Authority (MBTA) Commuter Rail and other public transit. Currently, the MBTA operates Commuter Rail entirely with diesel-locomotive hauled trains.**

In its Rail Vision report, the MBTA has laid out the framework to plan for electrification including feasibility, cost, and ridership benefits. In a line level analysis of Commuter Rail lines, the MBTA Rail Report found that electrification of some of the lines resulted in the highest cost savings and the greatest level of travel time savings. The Rail Report found that electrification of the Fitchburg Line which stops in South Acton, offered the greatest travel time savings and provided the most frequency and connectivity.

**M2: Work with local businesses to support public transportation needs and co-fund innovative transportation initiatives (bikeshare programs, EV charger installations, electric car share programs, etc.).**

An example of a business supporting public transportation needs: Before COVID-19, the Town of Acton offered a bike share service with locations at the South Acton Commuter rail station and in West Acton Village. The bikeshare program was used primarily by commuters and was sponsored in part by local businesses. The program ended when the bikeshare company went bankrupt due to COVID-19, however, it provided a template and example of a program model that can work to help fill mobility gaps. The Town will explore the possibility of restarting a co-funded bikeshare program, and applying a similar model in other transportation initiatives, such as installing more public EV charging stations as part of this work.

**M3: Participate in regional discussions on transportation and increase coordination with neighboring towns; support the linkage of north and south commuter rail lines.**

The North South Rail Link (NSRL) project would connect the Massachusetts Bay Transportation Authority's (MBTA) northside and southside commuter rail networks into one regional system through the construction and operation of a rail tunnel through Downtown Boston. According to an assessment by the Massachusetts Department of Transportation (MassDOT) this tunnel would enable through-running of MBTA Commuter Rail and Amtrak trains, increasing system coverage, capacity, and ridership. The Town will advocate for this rail link connection to support greater public transit connectivity between Acton and regional services, jobs and recreation opportunities.

**M4: Restart and expand the service region of the Cross-Acton Transit (CAT) by incorporating new fixed routes or providing on-demand services.**

The CAT was a shuttle that offered free fixed-schedule and fixed route services to the South Acton Commuter lot. Due to COVID-19 and inability to fill driver positions the service has been paused. The Town will procure new shuttle services to provide more transit opportunities and improve the ridership experience.

## Increase the adoption of electric vehicles

**M5: Promote electric vehicle adoption.**

Create an outreach campaign to connect residents and businesses to state and federal incentives that make zero emission vehicles more affordable. Combined federal and state tax credits can reduce purchase costs up to \$10,000.

### *Spotlight Corner*

The City of Birmingham, Alabama offers on-demand public mobility to complement public transportation services, enabling residents in the city to book a shared ride for a flat rate fee of \$1.50. The program provides accessible vehicles for riders with disabilities and hires local driver-partners. <https://www.birminghamal.gov/via/>

**M6: Create an incentive program to help provide increased access to EVs for low-income residents in Acton.**

The Town will explore opportunities to develop an incentive program to make it easier for low-income resident to adopt EVs. As part of this incentive program the Town will seek opportunities to provide financial resources and information to meet the demand for additional charging infrastructure (e.g. at multi-unit buildings). Acton will keep up-to-date on potential changes in federal incentives that may provide greater income-tiered incentives for residents.

**M7: Implement an income tiered EV car sharing program in partnership with community organizations and affordable housing developments.**

The Town will conduct research with nearby towns and cities across the U.S. that have successfully implemented EV car sharing programs to identify the steps to procure a similar service in Acton. There has been success in similar programs in Boston, Portland, OR, and Sacramento, CA. Drivers typically use a smartphone app to book an EV for a time slot and then pick up the car, run their errands, and plug it back into the charging station. Studies show that for one shared vehicle, it can take as many as 7-10 individual cars off the road.

**Lead by example: transition to all electric school buses and town vehicles**

**M8: Adopt electric-first vehicle policy for the Town’s municipal fleet, meaning that electric vehicles, including school buses and micro-transit services like the Minuteman Van and the CAT shall be prioritized when the Town purchases or leases motor vehicles for its municipal operations.**

This includes: The purchase or lease of exclusively battery electric vehicles for all light-duty passenger fleet replacements; Pilot, evaluate, and, where feasible, acquire electric vehicles for medium- and heavy-duty vehicle and equipment categories; Minimize vehicle miles travelled and minimize idling.

**Expand public and opportunities for private electric vehicle (EV) charging infrastructure**

**M9: Fill EV charger gaps near major thruways and at key locations that have frequent visitors, including trailheads, garages, parking lots, and other facilities.**

Increase the amount of chargers in town annually as EV adoption increases, considering the three levels of EV chargers as options: Level 1, 2, and 3. Evaluate strategies to reduce the cost of adopting EV infrastructure, including the procurement of chargers in large volumes, expediting the permitting process, and identifying sites carefully, taking into account utility interconnection and the potential to group various chargers and reduce fixed costs. Evaluate pricing structures and benefits to local businesses.

**M10: Adopt EV-ready and/or installation requirements for new residential and commercial buildings or major rehab.**

The Town will coordinate with utilities and relevant stakeholders to identify opportunities where adopting “make-ready” requirements can save future costs. Make-ready hardware includes distribution feeders, transformers, meters, and the service drop. For example, new development or major rehab projects should consider oversizing the transformer and laying additional conduit to support expansion, where the marginal cost of doing so is not prohibitive. Wherever possible, explore opportunities to also make buildings solar ready via this work as well.

***Spotlight Corner***

The Affordable EV car sharing program, ‘Good2Go’ is available to drivers in Boston. Low-income members enrolled in a public assistance program pay a \$5 per hour reduced rate, half the standard rate. The program also welcomes market-rate members, and the cost of car sharing remains below the cost of car ownership and other car sharing/car rental options in the area. It is aimed at neighbors who do not need or want to own a car or are looking to replace the need for a second car. According to Good2Go “it also introduces clean, quiet EV technology for those wanting to try an electric vehicle, but not yet ready to purchase one.” <https://evgood2go.org/about/>

**M10: Adopt EV-ready and/or installation requirements for new residential and commercial buildings or major rehab.**

The Town will coordinate with utilities and relevant stakeholders to identify opportunities where adopting “make-ready” requirements can save future costs. Make-ready hardware includes distribution feeders, transformers, meters, and the service drop. For example, new development or major rehab projects should consider oversizing the transformer and laying additional conduit to support expansion, where the marginal cost of doing so is not prohibitive. Wherever possible, explore opportunities to also make buildings solar ready via this work as well.

**M11: Explore policies and incentives to enable multi-family housing residents to expand electric vehicle charging options.**

The Town will provide resources and support to pilot an EV charging solution in a multi-family housing complex in an effort to scale these solutions. The Town will coordinate with landlord, property management, and homeowner associations (HOA) to find ways to address network integrations, installations, payment schemes and long-term management and maintenance. One example is enabling Level 1 chargers to operate through existing common outlets, establishing a compensation based on energy use and residential electric rates. This can be achieved through submetering equipment or with a flat monthly fee. Another option for residents who wish to install Level 2 charging is to enable EV drivers in a complex to purchase EV charging equipment for a designated space and pay a third-party network solution handle the billing.

***Spotlight Corner***

The City of Birmingham, Alabama offers on-demand public mobility to complement public transportation services, enabling residents in the city to book a shared ride for a flat rate fee of \$1.50. The program provides accessible vehicles for riders with disabilities and hires local driver partners. <https://www.birminghamal.gov/via/>

**Improve bicycle and pedestrian infrastructure**

**M12: Develop and implement a bicycle and pedestrian plan.**

Incorporate measures to increase bicyclist and pedestrian safety, increase connection to a broader regional bike network and walking trails, and improve ridership and to expand and appropriately regulate deployment micro-mobility options (e-bikes, scooters, bikeshare programs, etc.); consider people with different abilities in these regulations. This includes exploring ecofriendly materials for sidewalk creation and a strategy for snow removal.

**M13: Continue implementing, supporting, and evaluating the Complete Streets Policy.**

A Complete Street is one that provides safe and accessible options for all travel modes – walking, biking, transit and vehicles – for people of all ages and abilities. The Town of Acton will continue to make Complete Streets practices a routine part of everyday operations, and approach every transportation project and program as an opportunity to improve streets and the transportation network for all users, working in coordination with other departments, agencies, and jurisdictions to achieve Complete Streets.



*Bruce Freeman Rail Trail. Photo by Bob Travis.*

# Mobility

Short = 1-2 years  
 Medium = 3-5 years  
 Long = 6-10 years

ID	Action	Co-Benefits	Action Type	Implementation Timeline	Municipal Lead Implementers	Potential Community Partners
M1	Advocate to electrify the Massachusetts Bay Transportation Authority (MBTA) Commuter Rail and other public transit.	<ul style="list-style-type: none"> <li>Improves air quality</li> <li>Improves public health</li> <li>Centers equity and environmental justice</li> </ul>	Advocacy	Long	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Transportation</li> <li>Green Advisory Board</li> <li>Select Board</li> </ul>	<ul style="list-style-type: none"> <li>MBTA</li> <li>MassDOT</li> </ul>
M2	Work with local businesses to support public transportation needs and co-fund innovative transportation initiatives.	<ul style="list-style-type: none"> <li>Improves air quality</li> <li>Improves public health</li> <li>Centers equity and environmental justice</li> </ul>	Feasibility assessment/ Pilot program	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Transportation</li> <li>Transportation Advisory Committee</li> <li>Planning</li> </ul>	<ul style="list-style-type: none"> <li>Local businesses</li> <li>Micro-mobility companies</li> <li>E4TheFuture</li> </ul>
M3	Participate in regional discussions on transportation and increase coordination with neighboring towns; support the linkage of north and south commuter rail lines.	<ul style="list-style-type: none"> <li>Improves air quality</li> <li>Improves public health</li> <li>Centers equity and environmental justice</li> </ul>	Advocacy	Medium	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Transportation</li> <li>Transportation Advisory Committee</li> </ul>	<ul style="list-style-type: none"> <li>MAGIC communities</li> </ul>
M4	Restart and expand the service region of the Cross-Acton Transit (CAT).	<ul style="list-style-type: none"> <li>Improves air quality</li> <li>Improves public health</li> <li>Centers equity and environmental justice</li> </ul>	Feasibility assessment/ Pilot program	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Transportation</li> <li>Transportation Advisory Committee</li> <li>Planning</li> </ul>	<ul style="list-style-type: none"> <li>Transportation services</li> <li>MassDOT</li> </ul>
M5	Promote electric vehicle adoption.	<ul style="list-style-type: none"> <li>Improves air quality</li> <li>Improves public health</li> <li>Centers equity and environmental justice</li> <li>Scalable or transferable to other neighborhoods</li> </ul>	Training /Education/ Outreach	Short	<ul style="list-style-type: none"> <li>Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>Local car dealerships</li> <li>Green Energy Consumers Alliance</li> <li>Energize Acton</li> </ul>
M6	Create an incentive program to help provide increased access to EVs for low-income residents in Acton.	<ul style="list-style-type: none"> <li>Improves air quality</li> <li>Improves public health</li> <li>Centers equity and environmental justice</li> </ul>	Financing	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>AHA</li> <li>ACHC</li> </ul>	<ul style="list-style-type: none"> <li>Car dealerships;</li> <li>Car-sharing services</li> <li>E4TheFuture</li> </ul>
M7	Implement an income tiered EV car sharing program in partnership with community organizations and affordable housing developments.	<ul style="list-style-type: none"> <li>Improves air quality</li> <li>Improves public health</li> <li>Centers equity and environmental justice</li> <li>Scalable or transferable to other neighborhoods</li> </ul>	Financing	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Building</li> <li>AHA</li> <li>ACHC</li> </ul>	<ul style="list-style-type: none"> <li>Car-sharing services</li> <li>E4TheFuture</li> </ul>

## Mobility (cont.)

ID	Action	Co-Benefits	Action Type	Implementation Timeline	Municipal Lead Implementers	Potential Community Partners
M8	Adopt electric-first vehicle policy for the Town's municipal fleet.	<ul style="list-style-type: none"> <li>Improves air quality</li> <li>Improves public health</li> </ul>	Policy /Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>DPW</li> <li>Fire</li> <li>Police</li> </ul>	
M9	Fill EV charger gaps near major thruways and at key locations that have frequent visitors, including trailheads, garages, parking lots, and other facilities.	<ul style="list-style-type: none"> <li>Scalable or transferable to other neighborhoods</li> </ul>	Capital Improvement	Medium	<ul style="list-style-type: none"> <li>Sustainability</li> <li>DPW</li> <li>Recreation</li> <li>Economic Dev.</li> </ul>	<ul style="list-style-type: none"> <li>Eversource</li> <li>MassDOT</li> <li>Charger companies</li> <li>Local businesses</li> </ul>
M10	Adopt EV-ready and/or installation requirements for new residential and commercial buildings or major rehab.	<ul style="list-style-type: none"> <li>Scalable or transferable to other neighborhoods</li> </ul>	Policy /Regulations/ Standards	Medium	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Building</li> <li>DPW</li> <li>Planning</li> <li>Economic Development</li> <li>Select Board</li> </ul>	<ul style="list-style-type: none"> <li>Eversource</li> <li>MassDOT</li> <li>MAPC</li> </ul>
M11	Explore policies and incentives to enable multi-family housing residents to expand electric vehicle charging options.	<ul style="list-style-type: none"> <li>Scalable or transferable to other neighborhoods</li> </ul>	Policy /Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Building</li> <li>Planning</li> </ul>	<ul style="list-style-type: none"> <li>MassCEC</li> <li>Committee for Action on Housing and Climate Change</li> </ul>
M12	Develop and implement a bicycle and pedestrian plan.	<ul style="list-style-type: none"> <li>Improves air quality</li> <li>Improves public health</li> <li>Improves local resilience</li> <li>Centers equity and environmental justice</li> </ul>	Capital Improvement	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Planning</li> <li>Natural Resources</li> <li>Recreation</li> <li>Transportation Advisory Committee</li> </ul>	<ul style="list-style-type: none"> <li>LandLine Coalition</li> <li>Micro-mobility companies (E-bikes, scooters, bikeshare)</li> <li>MassCEC</li> <li>Acton Conservation Trust</li> </ul>
M13	Continue implementing, supporting, and evaluating the Complete Streets Policy.	<ul style="list-style-type: none"> <li>Improves air quality</li> <li>Improves public health</li> <li>Improves local resilience</li> <li>Centers equity and environmental justice</li> </ul>	Policy /Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>DPW</li> <li>Planning</li> <li>Transportation Advisory Committee</li> </ul>	<ul style="list-style-type: none"> <li>Developers</li> <li>Businesses</li> <li>Residents</li> </ul>

# Nature-based solutions

**NBS Goal 1:** Acton's natural resources are protected, managed, connected, and restored to increase carbon sequestration, equity, resilience, and biodiversity.

**NBS Goal 2:** Acton increases its waste diversion rate through town-wide programs, bylaws, and policies to streamline, prevent, reduce, reuse, compost, and recycle waste.

**NBS Goal 3:** Local land use policy encourages affordable, diverse, transit-oriented and net zero housing while also enhancing nature-based solutions.

**NBS Goal 4:** Acton prepares for climate disruptions, including drought, flooding, more frequent and/or severe storms, extreme heat, and biodiversity loss.

## Increase protection of existing open space and potential green spaces throughout town in line with the Open Space and Recreation Plan

### **NBS1: Prioritize increasing equitable access to green space and water table recharging areas.**

Evaluate and set a goal for proximity to parks and open space in Acton for every resident. Similarly prioritize adding green spaces in water table recharge areas where needed. Pursue changes to local policies and programs to advance this goal.

### **NBS2: Adopt a no net loss policy for trees in the town.**

The Town will coordinate with key committees and stakeholders to explore options to establish a no net loss policy for trees, which could include identifying a formula to determine individual and total tree canopy, a formula for replacement canopy, a formula for replacement shrub and groundcovers, and recommendations for implementing the policy in new construction projects. Exceptions could include tree removal in response to natural disasters, standard wildlife management, or actively managed existing utility easements.

### **NBS3: Develop a tree planting plan.**

The Town will develop a plan to identify a target increase in canopy cover based on community needs. Pair the development of the plan with a tree planting campaign to enhance tree care, awareness, and education. Consider trees resilient to climate impacts (disease, shorter cold peaks, drought, etc.).

### **NBS4: Explore the opportunity to establish a municipal nursery.**

The Town will explore options to establish a nursery to provide low maintenance trees at below wholesale prices. These trees will be used on municipal streets, parks, schools, etc.

### **NBS5: Ensure development is paired with nature-based solutions.**

Key Town departments will work with committees and stakeholders to review and assess best development practices from local, regional, state, and federal examples to evaluate existing land use regulations in comparison to these best practices. An example includes adopting a green code that sets minimum requirements for new and existing houses to implement different types of green infrastructure, water-wise landscaping, and native plants within each lot on a points-based system. Another example includes reviewing existing development options such as the Planned Conservation Residential Community (PCRC), which is a type of cluster development, to ensure preservation of open space. Acton's Zoning Bylaw states that the primary purpose of the PCRC, "is to allow residential development that encourages the preservation of open space and thus allows within it the preservation of significant land, water, historic, archeological and natural resources, in a manner consistent with the goals of the Master Plan and the Open Space and Recreation Plan."

### **NBS6: Review and update bylaws and procedure to incorporate climate change and sustainability considerations (for permitting, planning approvals, etc.).**

The Town will work with committees and stakeholders to review best practices from local, regional, state, and federal examples to evaluate existing bylaws and procedures, and suggest updates as necessary.

#### ***Spotlight Corner***

Stormwater runoff in developed locations is easily polluted and increases pathogens in the surrounding waterways. To help reduce this effect, Provincetown, Massachusetts paved several of their main streets in town using porous pavement that allows up to 80% of annual rainfall to infiltrate to the subsoil. The decrease in stormwater runoff greatly improved the water quality of the Provincetown Harbor.

[https://www.epa.gov/sites/default/files/2016-12/documents/ma\\_provincetown\\_508.pdf](https://www.epa.gov/sites/default/files/2016-12/documents/ma_provincetown_508.pdf)

## Support food resilience and sustainable farming practices

**NBS7: Provide resources, including financial assistance, to support Community Supported Agriculture (CSA) memberships for low-income residents.**

A CSA is a partnership between farmers and consumers who typically want to purchase fresh whole foods that can also support the local economy and often, sustainable growing practices. Consumers typically pay for the season up-front so farmers have enough capital to prepare for the spring. These up-front payments can be cost prohibitive to low-income residents. Other barriers to CSA participation can include the time and knowledge required to prepare whole foods, and transportation, work schedule, and child care challenges that get in the way of picking up deliveries. To reduce some of these barriers, experts recommend offering flexible distribution practices including self-selection of fruits and vegetables, informational outreach about fresh produce seasonality and CSA programs, education and tools to assist with fruit and vegetable preparation, sliding scale pricing or subsidies for low-income families, and Electronic Benefits Transfer (EBT) acceptance for CSA payments. The Town will work with community partners to identify opportunities to make whole foods more accessible while also supporting the local farm economy.

**NBS8: Explore opportunities to encourage agrophotovoltaics (APV).**

APV, also known as agrivoltaics, is a new opportunity for farms to maximize land use efficiency while generating power for farms, and potentially as an additional revenue stream. Unlike a typical solar field, APV entails spacing and orienting the arrays to allow for sunlight for the crops and more space for free maneuvering of both equipment and people. The Town will work with key stakeholders to explore opportunities to pilot this technology in Acton.

**NBS9: Promote programs for farms and restaurants to donate extra food to food pantries or shelters.**

The Town will provide information and resources to farms and restaurants interested in donating their food to pantries or shelters. This includes providing an up-to-date list of local food pantries and shelters for restaurants and farms to consider.

## Pair Nature-based Solutions with Resilience

**NBS10: Ensure town-wide planning efforts incorporate the latest available climate change data and include resilience-focused priorities or strategies.**

The Town will incorporate the latest available climate change data, associated risks and impacts when reviewing and updating town-wide plans (e.g., Hazard Mitigation Plan, Municipal Vulnerability Preparedness Plan, Open Space and Recreation Plan, Master Plan, etc.). New implementation actions in these plans will include measures, with a focus on nature-based solutions where feasible, that enhance the Town's climate resilience.

**NBS11: Explore opportunities to promote and/or pilot projects with natural carbon sinks and sequestration solutions.**

Carbon sequestration is the process in which carbon is captured and stored, which prevents it from releasing into the atmosphere. The Town will work with key partners and organizations working in this space to identify opportunities to create an internal carbon market and/or price to support strategy NBS2 and NBS3.

**NBS12: Explore policies and programs to reduce impervious surfaces in line with the Municipal Separate Storm Sewer System (MS4) permit, to allow more greenhouse gas absorption, water recharge, and reduce water pollution.**

As stormwater flows, it picks up soil, animal waste, salt, pesticides, fertilizers, oil and grease, litter and other potential pollutants. Green infrastructure or previous pavement can help stop runoff pollution by capturing rainwater and either storing it for use or letting it filter back into the ground, replenishing vegetation and groundwater supplies. The Town will continue to explore ways to reduce stormwater pollution, including the development of a stormwater fee, that can help finance the cost of a stormwater program implementation. Stormwater fees are proportional to the total impervious area on a particular property, including concrete or asphalt driveways and roofs, that do not allow rain to infiltrate.

**NBS13: Support sustainable and resilient water management.**

The Town will continue to include water management as part of its resilience planning, including the Hazard Mitigation Plan and Municipal Vulnerability Preparedness Plan. The Town will work closely with the Acton Water District (AWD) to continue to explore ways to ensure clean water for current and future generations.

**NBS 14: Provide emergency funds to low-income residents to manage climate change related disasters.**

The Town will explore best practices to protect vulnerable populations and will incorporate this action into Municipal Vulnerability Preparedness Plan and Hazard Mitigation Plan. The Town will review and explore potential sources of funding, including setting up a city fund supported by a stormwater fee or state or federal funding sources.

**NBS15: Explore opportunities to promote eco-roof installations.**

An “eco-roof” is a term used to describe a climate-smart roof that provides multiple benefits. Eco-roofs can generate renewable energy, manage stormwater, reduce heating loads in a building, and/or mitigate urban heat island effect, depending on the type of roof installed. The Town will explore establishing an eco-roof requirement for new construction and roof replacements to ensure developers make use of frequently underutilized rooftop space to advance net zero goals and co-benefits. Examples include a roof that is partially or completely covered with vegetation or using white paint to reflect sunlight to increase cooling capabilities of the roof.

**Improve and expand services to increase to reduce waste and increase the waste diversion rate**

**NBS16: Advocate for initiatives that increase waste diversion.**

Example initiatives include expanding opportunities for residents to participate in the Town’s pay-as-you-throw (PAYT) program, which charges for the collection of municipal waste, or household trash, based on the amount thrown away. Another example is Extended Producer Responsibility (EPR) policies, which enact product specific and framework legislation to have producers share in the responsibility for product waste management costs, which shift costs from municipalities and give producers the incentive to design products to make them easier to reuse and recycle and less toxic.

***Spotlight Corner***

To help reduce food waste the city of Cambridge has created a curbside compost collection program. This program is available to any resident who uses the City's trash collection and compost bins and carts are provided. <https://www.cambridgema.gov/Services/curbsidecomposting>

**NBS17: Promote a culture of reuse by promoting the swap shop and local businesses that collect used items.**

The Town of Acton will conduct outreach to inform residents and businesses of options to donate used items, including the promotion of the swap shop located at the Transfer Station. Acton will also explore the possibility of an exchange center for multi-unit dwellings.

**NBS18: Conduct a waste audit in Acton to explore curbside solid waste and recycling collection to reduce waste, increase composting, improve efficiency and reduce emissions.**

The Town of Acton will work with the Massachusetts Department of Environmental Protection (MASSDEP) to develop a feasibility study for implementing a town-wide curbside solid waste and recycling collection system, which would include options for PAYT. Acton will include multi-unit dwellings in the study. The Town will also investigate setting a standard for haulers to electrify their vehicles.

**Lead by example**

**NBS20: Transition to electric mowing equipment.**

The Town will develop a phased plan to purchase electric mowing equipment for all mowing equipment replacements.



*Tom Tidman, Natural Resources Director, and Mel Anderson, Sustainability Fellow, lead residents on a Nature Walk & Talk.*

# Nature-based Solutions & Waste Diversion

Short = 1-2 years  
 Medium = 3-5 years  
 Long = 6-10 years

ID	Action	Co-Benefits	Action Type	Implementation Timeline	Municipal Lead Implementers	Potential Community Partners
<b>NBS1</b>	Prioritize increasing equitable access to green space and water table recharging areas.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Improves public health</li> <li>Protects or enhances biodiversity</li> <li>Preserves green and open spaces</li> <li>Centers equity and environmental justice</li> </ul>	Policy / Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>Natural Resources</li> <li>Acton Water District</li> <li>GIS</li> <li>Recreation</li> <li>Sustainability</li> <li>Land Stewardship Committee</li> <li>Conservation Commission</li> <li>DEIC</li> </ul>	<ul style="list-style-type: none"> <li>Green Acton</li> <li>The Nature Conservancy</li> <li>MAPC</li> <li>Mass Audubon</li> </ul>
<b>NBS2</b>	Adopt a no net loss policy for trees in the town.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Protects or enhances biodiversity</li> </ul>	Policy / Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>Natural Resources</li> <li>Sustainability</li> <li>Planning</li> <li>DPW</li> <li>Land Stewardship Committee</li> </ul>	<ul style="list-style-type: none"> <li>Green Acton</li> <li>Acton Conservation Trust</li> <li>The Nature Conservancy</li> <li>Mass Audubon</li> </ul>
<b>NBS3</b>	Develop a tree planting plan.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Preserves green and open spaces</li> <li>Centers equity and environmental justice</li> </ul>	Policy / Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>DPW</li> <li>Natural Resources</li> <li>Sustainability</li> <li>Land Stewardship Committee</li> </ul>	<ul style="list-style-type: none"> <li>Green Acton</li> <li>The Nature Conservancy</li> </ul>
<b>NBS4</b>	Explore the opportunity to establish a municipal nursery.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Preserves green and open spaces</li> </ul>	Feasibility assessment/ Pilot program	Medium	<ul style="list-style-type: none"> <li>Natural Resources</li> <li>DPW</li> <li>Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>Green Acton</li> <li>The Nature Conservancy</li> </ul>
<b>NBS5</b>	Ensure development is paired with nature-based solutions.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Improves public health</li> <li>Protects or enhances biodiversity</li> <li>Preserves green and open spaces</li> </ul>	Policy / Regulations/ Standards	Medium	<ul style="list-style-type: none"> <li>Natural Resources</li> <li>Planning</li> <li>Sustainability</li> <li>Acton Water District</li> <li>Conservation Commission</li> <li>Planning Board</li> </ul>	<ul style="list-style-type: none"> <li>Local developers</li> <li>Green Acton</li> <li>Acton Conservation Trust</li> <li>The Nature Conservancy</li> <li>Mass Audubon</li> </ul>
<b>NBS6</b>	Review and update bylaws and procedure to incorporate climate change and sustainability considerations.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Improves public health</li> <li>Protects or enhances biodiversity</li> <li>Preserves green and open spaces</li> </ul>	Policy / Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Planning</li> <li>Natural Resources</li> <li>Acton Water District</li> <li>Conservation Commission</li> <li>Planning Board</li> <li>Select Board</li> </ul>	<ul style="list-style-type: none"> <li>Green Acton</li> <li>The Nature Conservancy</li> <li>MAPC</li> <li>Mass Audubon</li> </ul>

## Nature-based Solutions & Waste Diversion (cont.)

ID	Action	Co-Benefits	Action Type	Implementation Timeline	Municipal Lead Implementers	Potential Community Partners
<b>NBS7</b>	Provide resources, including financial assistance, to support Community Supported Agriculture (CSA) memberships for low-income residents.	<ul style="list-style-type: none"> <li>Improves public health</li> <li>Centers equity and environmental justice</li> </ul>	Financing	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Community Resources</li> <li>Agricultural Commission</li> </ul>	<ul style="list-style-type: none"> <li>Local farms</li> <li>Green Acton</li> <li>Boston Area Gleaners</li> </ul>
<b>NBS8</b>	Explore opportunities to encourage agrophotovoltaics (APV).	<ul style="list-style-type: none"> <li>Produce local energy</li> <li>Improves local resilience</li> </ul>	Feasibility assessment/ Pilot program	Medium	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Natural Resources</li> <li>Planning</li> <li>Agricultural Commission</li> </ul>	<ul style="list-style-type: none"> <li>Local farms</li> <li>Boston Area Gleaners</li> </ul>
<b>NBS9</b>	Promote programs for farms and restaurants to donate extra food to food pantries or shelters.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Improves public health</li> <li>Centers equity and environmental justice</li> </ul>	Training /Education/ Outreach	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Community Resources</li> <li>Agricultural Commission</li> </ul>	<ul style="list-style-type: none"> <li>Local restaurants and farms</li> <li>Acton Food Pantry, and other food pantries</li> </ul>
<b>NBS10</b>	Ensure town-wide planning efforts incorporate the latest available climate change data and include resilience-focused priorities or strategies.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Improves public health</li> <li>Protects or enhances biodiversity</li> <li>Preserves green and open spaces</li> <li>Centers equity and environmental justice</li> </ul>	Policy / Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>DPW</li> <li>Fire</li> <li>Police</li> <li>Acton Water District</li> </ul>	<ul style="list-style-type: none"> <li>Green Acton</li> <li>Acton Climate Coalition</li> </ul>
<b>NBS11</b>	Explore opportunities to promote and/or pilot projects with natural carbon sinks and sequestration solutions.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Protects or enhances biodiversity</li> <li>Preserves green and open spaces</li> </ul>	Feasibility assessment/ Pilot program	Medium	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Natural Resources</li> <li>Planning</li> </ul>	<ul style="list-style-type: none"> <li>Acton Conservation Trust</li> <li>Mass Audubon</li> </ul>
<b>NBS12</b>	Explore policies and programs to reduce impervious surfaces in line with the Municipal Separate Storm Sewer System (MS4) permit.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Protects or enhances biodiversity</li> </ul>	Policy / Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>DPW</li> <li>Engineering</li> <li>Sustainability</li> <li>Acton Water District</li> </ul>	<ul style="list-style-type: none"> <li>MassDEP</li> </ul>

## Nature-based Solutions & Waste Diversion (cont.)

ID	Action	Co-Benefits	Action Type	Implementation Timeline	Municipal Lead Implementers	Potential Community Partners
<b>NBS13</b>	Support sustainable and resilient water management.	<ul style="list-style-type: none"> <li>Improves public health</li> <li>Centers equity and environmental justice</li> </ul>	Policy / Regulations/ Standards	Long	<ul style="list-style-type: none"> <li>DPW</li> <li>Engineering</li> <li>Sustainability</li> <li>Acton Water District</li> <li>WRAC</li> </ul>	<ul style="list-style-type: none"> <li>Green Acton</li> <li>MassDEP</li> </ul>
<b>NBS14</b>	Provide emergency funds to low-income residents to manage climate change related disasters.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Centers equity and environmental justice</li> </ul>	Financing	Medium	<ul style="list-style-type: none"> <li>Sustainability</li> <li>AHA</li> <li>Fire</li> <li>DPW</li> </ul>	<ul style="list-style-type: none"> <li>Committee for Action on Housing and Climate Change</li> <li>HUD</li> </ul>
<b>NBS15</b>	Explore opportunities to promote green roof installations.	<ul style="list-style-type: none"> <li>Improves local resilience</li> </ul>	Feasibility assessment/ Pilot program	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Planning</li> </ul>	<ul style="list-style-type: none"> <li>Built Environment Plus</li> <li>Mass Audubon</li> </ul>
<b>NBS16</b>	Advocate for initiatives that increase waste diversion.	<ul style="list-style-type: none"> <li>Improves public health</li> <li>Centers equity and environmental justice</li> </ul>	Advocacy	Medium	<ul style="list-style-type: none"> <li>Sustainability</li> <li>DPW</li> <li>Green Advisory Board</li> <li>Select Board</li> </ul>	<ul style="list-style-type: none"> <li>Waste haulers</li> <li>MassDEP</li> <li>MassRecycle</li> </ul>
<b>NBS17</b>	Promote a culture of reuse by promoting the community-wide swap shop and local businesses that collect used items.	<ul style="list-style-type: none"> <li>Centers equity and environmental justice</li> </ul>	Training /Education/ Outreach	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>DPW</li> </ul>	<ul style="list-style-type: none"> <li>Swap Shop</li> <li>Energize Acton</li> <li>Green Acton</li> <li>E4TheFuture</li> <li>Local donation and reuse centers and businesses</li> </ul>
<b>NBS18</b>	Conduct a waste audit in Acton to explore private hauling options to reduce waste, increase composting, improve efficiency and reduce emissions.	<ul style="list-style-type: none"> <li>Improves public health</li> <li>Centers equity and environmental justice</li> </ul>	Feasibility assessment/ Pilot program	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>DPW</li> </ul>	<ul style="list-style-type: none"> <li>MassDEP</li> <li>Waste haulers</li> <li>Electric garbage truck companies</li> </ul>
<b>NBS19</b>	Ensure recycling options are offered for residents in multi-unit buildings as mandated by the state, and at no cost to low-income residents.	<ul style="list-style-type: none"> <li>Centers equity and environmental justice</li> </ul>	Policy / Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>DPW</li> <li>AHA</li> <li>ACHC</li> </ul>	<ul style="list-style-type: none"> <li>Committee for Action on Housing and Climate Change</li> <li>Recycle Smart MA</li> <li>MassDEP</li> <li>MassRecycle</li> </ul>
<b>NBS20</b>	Transition to electric mowing equipment.	<ul style="list-style-type: none"> <li>Improves air quality</li> <li>Improves public health</li> </ul>	Policy / Regulations/ Standards	Short	<ul style="list-style-type: none"> <li>Natural Resources</li> <li>Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>Electric lawn mower companies</li> </ul>

# Education and outreach

**EO1: Provide resources and information for residents, organizations, and businesses that want to reduce their greenhouse gas (GHG) emissions (e.g. information about solar, electric vehicles, heat pumps, and other clean energy technologies).**

This includes referring residents and businesses to the website, [EnergizeActon.org](http://EnergizeActon.org), which includes a list of actions to reduce GHG emissions. Energize Acton is a collaboration between the Acton Climate Coalition (ACC) and the Town of Acton Sustainability Office. Through this effort the Town of Acton will continue to encourage residents to learn about Scope 3 emissions (e.g. from consumption and air travel) and to voluntarily reduce those emissions as much as possible. The Town will also prioritize information on the site, and related outreach, that is of greatest benefit to renters, low-income households, and Environmental Justice communities, and include translation into multiple languages as needed.

**EO2: Foster careers in the sustainable and environmental sector.**

Engage Acton-Boxborough Regional School District and local independent and vocational technical schools to foster climate literacy for all students and to encourage the development of knowledge and skills relevant in the clean energy sector and other environmental careers, including those that intersect with other disciplines such as sociology, history, economics, etc.

**EO3: Create an educational program for contractors and real estate agents active in Acton to provide updates on clean energy technologies.**

The Town will coordinate with regional partners to develop and/or promote educational programs to provide heat pump training or education programs for HVAC Contractors to become experienced system design and installers. These programs and opportunities will also be open to real estate agents who would like to learn how to evaluate a home's heat pump system.

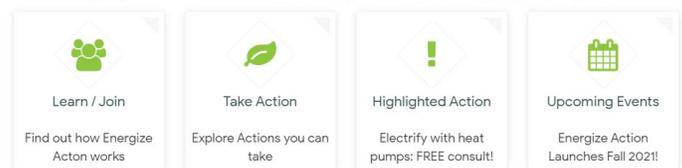
## Cross-Cutting Goal

**CC1: Develop a budget for the implementation of the Climate Action Plan and future budget projects needed to meet the net zero by 2030 goal.**

The Town will work with a consultant during Phase II of the Climate Action Plan process to help develop a GHG and cost benefit analysis for potential strategies in the Climate Action Plan. The Town will conduct annual tracking of municipal and community-wide emissions identified in GHG inventory (and actions such as EV purchases) via tools like ICLEI.

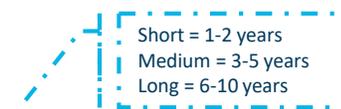


WELCOME TO ENERGIZE ACTON! Join your Acton neighbors to take action on our Climate Emerger Sign up. Record your actions. Track your — and community — progress.



*Screenshot of the [EnergizeActon.org](http://EnergizeActon.org) site.*

## Education and Outreach



ID	Action	Co-Benefits	Action Type	Implementation Timeline	Municipal Lead Implementers	Potential Community Partners
EO1	Provide resources and information for residents, organizations, and businesses that want to reduce their GHG emissions.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Centers equity and environmental justice</li> <li>Scalable or transferable to other neighborhoods</li> </ul>	Training /Education/ Outreach	Short	<ul style="list-style-type: none"> <li>Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>Energize Acton</li> </ul>
EO2	Engage Acton-Boxborough Regional School District and local independent and vocational technical schools.	<ul style="list-style-type: none"> <li>Improves local resilience</li> <li>Supports "green" workforce development</li> <li>Centers equity and environmental justice</li> <li>Scalable or transferable to other neighborhoods</li> </ul>	Training /Education/ Outreach	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>ABRSD</li> </ul>	<ul style="list-style-type: none"> <li>MassCEC</li> <li>Vocational schools in the region</li> </ul>
EO3	Create an educational program for contractors and real estate agents active in Acton to provide updates on clean energy technologies.	<ul style="list-style-type: none"> <li>Supports "green" workforce development</li> <li>Centers equity and environmental justice</li> <li>Scalable or transferable to other neighborhoods</li> </ul>	Training /Education/ Outreach	Short	<ul style="list-style-type: none"> <li>Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>Local energy contractors</li> <li>Energize Acton</li> </ul>

## Cross-Cutting

ID	Action	Co-Benefits	Action Type	Implementation Timeline	Municipal Lead Implementers	Potential Community Partners
CC1	Develop a budget for the implementation of the Climate Action Plan and future budget projects needed to meet the net zero by 2030 goal.	<ul style="list-style-type: none"> <li>Produces local energy</li> <li>Improves air quality</li> <li>Supports "green" workforce developments</li> <li>Improves local resilience</li> <li>Improves public health</li> <li>Protect or enhance biodiversity</li> <li>Preserves green and open spaces</li> <li>Centers equity and environmental justice</li> <li>Scalable or transferable to other neighborhoods</li> </ul>	Financing	Short	<ul style="list-style-type: none"> <li>Sustainability</li> <li>Green Advisory Board</li> <li>Select Board</li> </ul>	<ul style="list-style-type: none"> <li>ICLEI</li> <li>Acton Climate Coalition</li> </ul>

**Questions? Reach out to the  
Sustainability Office at  
[sustainability@actonma.gov](mailto:sustainability@actonma.gov) or  
dial 978-929-6515**

