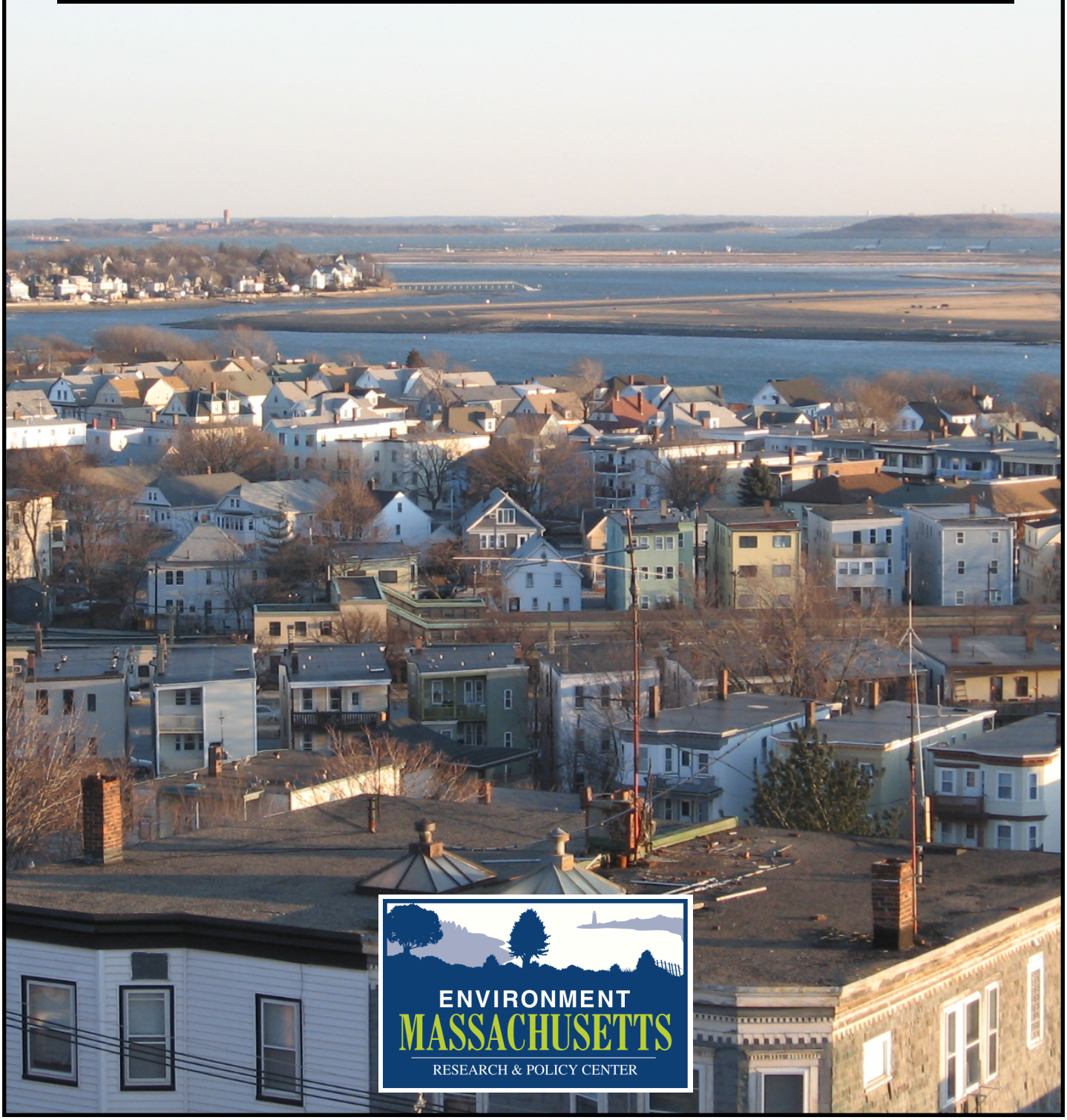
Renewable Communities 2022

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



ENVIRONMENT MASSACHUSETTS
RESEARCH & POLICY CENTER

Renewable Communities 2022

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

Jack Quigley and Ben Hellerstein
Environment Massachusetts Research & Policy Center
August 2022

The Environment Massachusetts Research & Policy Center is a 501(c)(3) organization. We are dedicated to protecting Massachusetts' air, water and open spaces. We investigate problems, craft solutions, educate the public and decision-makers, and help Bay Staters make their voices heard in local, state and national debates over the quality of our environment and our lives. For more information about Environment Massachusetts Research & Policy Center or for additional copies of this report, please visit www.environmentmassachusettscenter.org.

Introduction

Across Massachusetts, cities and towns are leading the way to a future powered entirely by clean and renewable sources of energy. Municipal officials and staff — working with citizen activists, nonprofit organizations, and businesses — are taking action to reduce fossil fuel consumption and increase the use of renewable energy.

This is the fifth edition of *Renewable Communities*, previously published in 2016, 2019, 2020, and 2021. This year's report includes nine new case studies of cities and towns that have adopted innovative policies and programs to reduce the use of fossil fuels and transition to clean energy. Several of the case studies in this report focus on strategies to encourage the switch to cleaner modes of transportation, including public transit, biking, and electric vehicles.

These case studies illustrate how action at the local level can accelerate Massachusetts' progress toward 100 percent renewable energy. We hope this report will inspire more communities to follow the example of the cities and towns featured here.

Case studies

Beverly: Greenhouse gas emissions across the city's 11 public schools have decreased by more than 23% since 2011 through energy efficiency and conservation measures.

Boston: Center-running bus lanes along Columbus Avenue are helping to reduce delays and make bus service more reliable.

Boston: Solarize Eastie is bringing affordable solar energy and battery storage to residents of East Boston.

Brookline: The new Driscoll School will include a ground-source heat pump system to heat and cool the building efficiently, without the use of fossil fuels.

Concord: The town's municipal light plant offers incentives for residents to purchase electric vehicles (EVs) and install charging stations in their homes.

Easthampton: The police department is replacing two of the gas-powered cars in its fleet with electric vehicles.

Melrose: In partnership with National Grid, the city has installed the first electric vehicle chargers on the East Cost that are mounted on utility poles.

Nantucket: Housing Nantucket, a nonprofit organization, is installing solar panels on six affordable housing units.

Salem: The city has joined the Bluebikes program, adding seven bike sharing docks at transit stations and other high-traffic locations.

ENVIRONMENT MASSACHUSETTS
RESEARCH & POLICY CENTER

Renewable Communities 2022

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

Beverly: Green schools

Since 2011, officials in Beverly have reduced greenhouse gas emissions by more than 23% across the city's 11 public schools through energy efficiency and conservation measures.[1]

The Green Communities program of the Massachusetts Department of Energy Resources (DOER) provides funding and technical assistance to help communities reduce municipal energy use.[2] Since joining Green Communities in 2011, Beverly has received more than $1.2 million in funding for energy efficiency and conservation initiatives, including projects at several schools.[3]

So far, retrofits have been completed at five of Beverly's schools, including improved heating, cooling and ventilation equipment as well as an energy management system.[4] In addition, the city also built its new middle school to meet high standards for sustainability, receiving LEED Silver certification.[5]

More than 40 years ago, Beverly High School became home to one of the nation's first solar installations. The city plans to install new panels at the high school as well as six other sites across the city in 2022, totalling 4.3 megawatts of solar generating capacity.[6] A separate project will install solar panels at city hall, the Council on Aging, and the police station.[7]

In addition to reducing emissions from building energy use, the city has also taken steps to transition to cleaner transportation options. Eight electric vehicle charging stations are available at the high school and two stations have been installed at the Ayers Ryal Side Elementary School, as well as six other chargers across the city.[8]

Beverly introduced its first electric school bus into the city's fleet in 2020.[9] An electric school bus in Beverly delivered power back to the grid for more than 50 hours during summer 2021, one of the first times a school bus has been used for "vehicle to grid" operations in the United States.[10]

Beverly's Resilient Together plan, developed in partnership with the neighboring city of Salem, calls for municipal operations to be powered entirely with clean electricity by 2030, and for 100% of the electricity consumed city-wide to come from clean sources by 2040.[11]

1. "Green Public Schools," City of Beverly, <https://beverlyma.gov/738/Green-Public-Schools>.
2. "Green Communities Division," Massachusetts Department of Energy Resources, <https://www.mass.gov/orgs/green-communities-division>.
3. *Green Community Designations Reach Two Hundred Eighty*, Massachusetts Department of Energy Resources, 8 June 2022, <https://www.mass.gov/doc/map-of-280-gcs-and-grant-summaries/download>.
4. "Green Public Schools," City of Beverly, <https://beverlyma.gov/738/Green-Public-Schools>.
5. Ibid.
6. "Beverly to Install Solar Panels At 6 Municipal Sites," Scott Souza, Patch, 13 June 2022, <https://patch.com/massachusetts/beverly/beverly-install-solar-panels-6-municipal-sites>.
7. Ibid.
8. "Electric Vehicles," City of Beverly, <https://beverlyma.gov/712/Electric-Vehicles>.
9. Ibid.
10. "Massachusetts Electric School Bus Helps Power Electricity Grid in Breakthrough for Vehicle-to-Grid Technology," Proterra, 13 October 2021, <https://www.proterra.com/press-release/massachusetts-electric-school-bus/>.
11. *Resilient Together Climate Action & Resilience Plan*, Cities of Beverly and Salem, Spring 2020, <https://kladashboard-clientsourcefiles.s3.amazonaws.com/Beverly-Salem/Resilient+Together+Climate+Action+Plan+Final.pdf>, p. 44.

ENVIRONMENT MASSACHUSETTS
RESEARCH & POLICY CENTER

Renewable Communities 2022

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

Boston: Center-running bus lanes

In October 2021, the first center-running bus lanes in New England were opened for service on Columbus Avenue in Boston, between Walnut Street and Jackson Square.[1]

In recent years, bus lanes have become an increasingly common sight along major roadways in Boston and surrounding communities, as part of a strategy to make bus trips faster and reduce traffic-related delays. These lanes, typically designated with red paint and reserved for the use of buses only or for buses and bicycles, have had significant benefits. Data collected during a bus lane pilot in Arlington showed that the designated lanes saved riders up to 10 minutes. Bus service during the pilot was more reliable, and trips were 53% faster between 8:00–9:00 a.m.[2]

While most of the region's bus lanes are adjacent to the curb or parked cars, the bus lanes along Columbus Avenue run in the middle of the roadway. Placing bus lanes in the center of the roadway eliminates potential conflicts with cars that are pulling into or out of parking spaces, as well as vehicles that are double-parked for deliveries or drop-offs. When combined with restrictions on left turns, center-running bus lanes can significantly reduce delays for transit riders.[3]

Three MBTA buses — the 22, 29, and 44 — travel down Columbus Avenue, and more than 8,000 people ride those routes each day.[4] The initial planning for this project began in August 2019, and the bus lanes opened for service on October 30, 2021.[5] The city and the MBTA collaborated on the project, with Boston contributing $1 million toward the total cost of $14 million.[6]

The Columbus Avenue project has also improved safety and accessibility for bus riders. Platforms alongside the bus lanes allow for easier and safer boarding.[7] These platforms include canopy shelters and seating, improved lighting, safety barriers, and emergency call boxes. Bus arrival times are displayed on digital screens and shared over audio announcements.[8]

Boston and the MBTA have secured funding to extend the Columbus Avenue bus lanes northward to Ruggles Station, and the city is also looking to add center-running bus lanes to Blue Hill Avenue in Mattapan.[9]

1. "Columbus Avenue Bus Lanes," Massachusetts Bay Transportation Authority, <https://www.mbta.com/projects/columbus-avenue-bus-lanes>.
2. "ArlingtonBRT," BostonBRT, <http://www.bostonbrt.org/arlingtonbrt>.
3. "Center Transit Lane," NACTO, <https://nacto.org/publication/transit-street-design-guide/transit-lanes-transitways/transit-lanes/center-transit-lane/>.
4. "MBTA, city of Boston cut ribbon on New England's first center-running bus lane on Columbus Avenue," Mass Transit, 12 November 2021, <https://www.masstransitmag.com/bus/infrastructure/press-release/21246323/massachusetts-bay-transportation-authority-mbta-mbta-city-of-boston-cutribbon-on-new-englands-first-centerrunning-bus-lane-on-columbus-avenue>.
5. "Columbus Avenue Bus Lanes," Massachusetts Bay Transportation Authority, <https://www.mbta.com/projects/columbus-avenue-bus-lanes>.
6. "MBTA, city of Boston cut ribbon on New England's first center-running bus lane on Columbus Avenue," Mass Transit, 12 November 2021, <https://www.masstransitmag.com/bus/infrastructure/press-release/21246323/massachusetts-bay-transportation-authority-mbta-mbta-city-of-boston-cutribbon-on-new-englands-first-centerrunning-bus-lane-on-columbus-avenue>.
7. "Columbus Avenue Bus Lanes," Massachusetts Bay Transportation Authority, <https://www.mbta.com/projects/columbus-avenue-bus-lanes>.
8. Ibid.
9. Ruggles: "Boston, MBTA to Extend Columbus Ave. Bus Lanes to Ruggles," StreetsBlog Mass, 1 April 2021, <https://mass.streetsblog.org/2021/04/01/boston-mbta-win-funding-to-extend-columbus-ave-bus-lanes-to-ruggles/>. Blue Hill Avenue: "City secures funding for Blue Hill Ave. bus lanes," The Bay State Banner, 1 December 2021, <https://www.baystatebanner.com/2021/12/01/city-secures-funding-for-blue-hill-ave-bus-lanes/>

ENVIRONMENT MASSACHUSETTS
RESEARCH & POLICY CENTER

Renewable Communities 2022

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

Boston: Solarize Eastie

In May 2022, Mayor Michelle Wu announced a program to bring affordable solar energy and battery storage to residents of East Boston.[1]

Solarize Eastie is a partnership between the city of Boston and Green Roots, an environmental justice organization that works in Chelsea and surrounding communities.[2] More than half of the 45,000 residents of East Boston are Latino immigrants, and the median income for the neighborhood is just over $50,000.[3]

The East Boston initiative is similar to other "Solarize" programs that have run in cities and towns across Massachusetts. These programs aim to increase the adoption of rooftop solar through community outreach, while using bulk purchasing to lower the cost of going solar.[4]

The city and Green Roots are working with two businesses — ACE Solar and Resonant Energy — to install and finance the solar projects.[5] Solarize Eastie will offer a 15% discount on solar installation costs, as well as subsidies for qualifying building owners.[6] Additionally, low- and moderate-income building owners can install solar with no upfront cost through the Solar Access Program, leasing their roofs to Resonant Energy and receiving a portion of the electricity generated from the solar panels as electric bill savings.[7]

Solarize Eastie complements other city initiatives to expand access to renewable energy and energy efficiency. Earlier in the year, Mayor Wu proposed a city budget that included $20 million for an energy-efficiency retrofit pilot program for multi-family housing, as well as $33 million to improve air quality and energy efficiency in public housing.[8]

1. "Access Increased to Renewable Energy and Energy Efficiency," City of Boston, 11 May 2022, <https://www.boston.gov/news/access-increased-renewable-energy-and-energy-efficiency>.
2. Ibid.
3. Ibid.
4. "Solarize-Heat Smart Toolkit," Massachusetts Clean Energy Center, <https://www.masscec.com/resources/solarize-heat-smart-toolkit>.
5. "Solarize Eastie," Resonant Energy, <https://www.resonant.energy/solarize-eastie>.
6. "Pilot program to aggregate home solar, storage demand in East Boston," Solar Builder, 10 May 2022, <https://solarbuildermag.com/news/pilot-program-to-aggregate-home-solar-storage-demand-in-east-boston/>.
7. "Residential – Solar Access Program," Resonant Energy, <https://www.resonant.energy/solar-access-program>.
8. "Access Increased to Renewable Energy and Energy Efficiency," City of Boston, 11 May 2022, <https://www.boston.gov/news/access-increased-renewable-energy-and-energy-efficiency>.

ENVIRONMENT MASSACHUSETTS
RESEARCH & POLICY CENTER

Renewable Communities 2022

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

Brookline: Ground-source heat pumps

Brookline's new Driscoll School, set to open in September 2023, will include a ground-source heat pump system to provide heating and cooling.[1]

Planning for the Driscoll School project began in 2018.[2] Town leaders considered multiple technologies, including air-source heat pumps, but settled on ground-source heat pumps as the most cost-effective and energy-efficient way to heat and cool the building without the use of fossil fuels.[3]

Ground-source heat pumps take advantage of the relatively constant temperature of the earth to provide heating and cooling for a building. A typical ground-source heat pump system circulates a liquid through pipes that are buried in the ground, and then transfers heat into or out of the building through the use of a refrigerant.[4]

In October 2021, town meeting members voted 197–17 in favor of borrowing $4.9 million to install the ground source heat system at the new Driscoll School.[5] The heat pump project is projected to pay for itself entirely within 21 years, according to a report from the Brookline School Committee.[6] Another report detailing the payback and emissions data for this pump show that the new heat pump will reduce carbon dioxide emissions by 188 thousand kilograms annually.[7]

Town leaders have set a goal of reaching zero greenhouse gas emissions community-wide by 2040.[8]

1. "Brookline Town Meeting approves $4.9M green heat pump for new Driscoll School," Abby Patkin, Wicked Local, 11 October 2021, <https://www.wickedlocal.com/story/brookline-tab/2021/10/11/brooklines-driscoll-school-getting-4-9-million-green-heat-pump/6092179001/>.
2. "Driscoll School Building Project," Public Schools of Brookline, <https://www.brookline.k12.ma.us/Page/2353>.
3. "Brookline Town Meeting approves $4.9M green heat pump for new Driscoll School," Abby Patkin, Wicked Local, 11 October 2021, <https://www.wickedlocal.com/story/brookline-tab/2021/10/11/brooklines-driscoll-school-getting-4-9-million-green-heat-pump/6092179001/>.
4. "Geothermal Heat Pumps", U.S. Department of Energy, <https://www.energy.gov/energysaver/geothermal-heat-pumps>.
5. "Special Town Meeting," Town of Brookline, 5 October 2021, <https://www.brooklinema.gov/DocumentCenter/View/32652/2021-STM-October-5-Minutes> p. 4.
6. "Reports of Select Board and Advisory Committee on the Articles in the Warrant for the Special Town Meeting," Town of Brookline, <https://www.brooklinema.gov/DocumentCenter/View/25568/Combined-Reports-October-5-2021-Special-Town-Meeting-with-Supplements>, p. 82.
7. "Driscoll School - Mechanical System Payback Summary," Town of Brookline, 22 September 2021, <https://www.brooklinema.gov/DocumentCenter/View/25500/Driscoll-School-50-Year-Payback-Summary-Renewable-Energy-Rate-9-22-21-Update?bidId=>.
8. "Zero Emissions Advisory Board," Town of Brookline, <https://www.brooklinema.gov/2081/Zero-Emissions-Advisory-Board>.

ENVIRONMENT MASSACHUSETTS
RESEARCH & POLICY CENTER

Renewable Communities 2022

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

Concord: Electric vehicle incentives

Concord is providing its residents with incentives to encourage the switch to electric vehicles (EVs).

Residents who buy or lease a fully electric vehicle are eligible for a rebate from the town's municipal light plant of between $650–$1,000, depending on the type of car and the resident's income. When combined with tax credits and rebates offered by the state and federal government, Concord residents can receive up to $11,000 off the cost of purchasing an EV.[1] The town offers rebates for both new and used vehicles.[2]

Concord residents can also receive a rebate of up to $250 for installing a level 2 EV charger in their home.[3] Residents who choose to charge their vehicles at night or in the morning, when demand for electricity is typically lower, will receive a monthly credit on their electric bills.[4]

These incentives have helped make Concord residents among the fastest adopters of electric vehicles in the state.[5] According to a sustainability report prepared by the town, 384 fully electric vehicles were registered in Concord as of 2022, and EVs and plug-in hybrids make up 4% of the vehicles registered in town.[6]

As a town with a municipal light plant, Concord has more flexibility in determining where the community's electricity will come from. A 2021 report from the Massachusetts Climate Action Network ranked Concord's light plant first among all municipal utilities in the state for addressing climate change and transitioning to clean, renewable sources of energy.[7]

The EV incentives are one piece of Concord's strategy to transition to zero-carbon modes of transportation. As outlined in the town's sustainability report, Concord aims to increase access to public transportation, establish more connections between biking and walking paths, and increase the number of electric vehicles on the road to nearly 8,000 by 2030.[8] The municipal utility also plans to provide 100% carbon-free electricity to residents by 2030.[9] Once this goal is achieved, electric vehicles charged in Concord will be completely emissions-free.[10]

1. "DriveEV Rebate Program," Town of Concord, <https://concordma.gov/2907/DriveEV-Rebate-Program>.
2. Ibid.
3. "EV level 2 program," Town of Concord, <https://concordma.gov/2233/EV-Level-2-Program>.
4. "EV Miles Program," Town of Concord, <https://concordma.gov/2274/EV-Miles-Program>.
5. "Benefits to Driving Electric," Town of Concord, <https://concordma.gov/2213/Benefits-to-Driving-Electric>.
6. "Mobility," Sustainable Concord, <https://sustainableconcord.org/category/mobility>.
7. *What's the Score?: A Comparative Analysis of Massachusetts Municipal Light Plants' Clean Energy and Climate Action Performance by The Massachusetts Climate Action Network*, Logan Malik, Massachusetts Climate Action Network, September 2021, <https://d3n8a8pro7vhmx.cloudfront.net/massclimateaction/pages/2200/attachments/original/1632398717/MCAN's_2021_Municipal_Light_Plant_Scorecard.pdf?1632398717>, p. 17.
8. "Mobility," Sustainable Concord, <https://sustainableconcord.org/category/mobility>.
9. "Energy," Sustainable Concord, <https://sustainableconcord.org/category/energy>.
10. "Benefits to Driving Electric," Town of Concord, <https://concordma.gov/2213/Benefits-to-Driving-Electric>.

ENVIRONMENT MASSACHUSETTS
RESEARCH & POLICY CENTER

Renewable Communities 2022

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

Easthampton: Electric police cars

The Easthampton police department is adding two electric vehicles (EVs) to its fleet.[1]

A $15,000 grant from the Green Communities program of the Massachusetts Department of Energy Resources (DOER) paid for a portion of the cost of the Tesla Model Y vehicles.[2] The police department chose this model in part because of its five-star safety rating. Two electric charging stations will be installed to power the vehicles.[3]

The EVs are replacing two gas-powered cars. The current vehicles have an expected lifespan of around five years, while the Tesla vehicles are expected to stay in operation significantly longer, between 12–15 years.[4] The city expects the EVs to save approximately $5,600 annually in fuel costs and reduce gasoline use by more than 1,800 gallons per year.[5]

Easthampton joined the Green Communities program in 2010, committing to reduce greenhouse gas emissions from municipal operations.[6] In a resolution adopted in 2021, the city council said that Easthampton and the region are facing a "climate emergency" and immediate action is needed.[7]

1. "Easthampton police get OK for Tesla vehicles," Emily Thurlow, Daily Hampshire Gazette, 23 May 2022, <https://www.gazettenet.com/Easthampton-Police-receives-City-Council-approval-for-appropriation-of-%2489k-toward-the-purchase-of-two-Teslas-46445449>.
2. Ibid.
3. Ibid.
4. "Easthampton City Council approves supplemental appropriations," Ryan Feyre, The Reminder, 24 May 2022, <https://www.thereminder.com/localnews/easthampton/easthampton-city-council-approves-supplemental-app/>.
5. "Easthampton police get OK for Tesla vehicles," Emily Thurlow, Daily Hampshire Gazette, 23 May 2022, <https://www.gazettenet.com/Easthampton-Police-receives-City-Council-approval-for-appropriation-of-%2489k-toward-the-purchase-of-two-Teslas-46445449>.
6. *Green Community Designations Reach Two Hundred Eighty*, Massachusetts Department of Energy Resources, <https://www.mass.gov/doc/map-of-280-gcs-and-grant-summaries/download>.
7. "Easthampton City Council Resolution Declaring a Climate Emergency," City of Easthampton, 22 September 2021, <https://www.easthamptonma.gov/DocumentCenter/View/2711/2021--Climate-Emergency-Resolution-PDF?bidId=>.

ENVIRONMENT MASSACHUSETTS
RESEARCH & POLICY CENTER

Renewable Communities 2022

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

Melrose: Pole-mounted electric vehicle chargers

The city of Melrose, in partnership with National Grid, has installed nine electric vehicle (EV) charging stations, including 15 total charging ports, that are mounted on utility poles and are available for curbside use.[1]

Pole-mounted EV chargers are already in use in the United Kingdom and other parts of Europe, and are beginning to catch on in the United States.[2] The new chargers in Melrose are the first of their kind on the East Coast.[3] Because utility pole-mounted charging stations can tap into the power running overhead rather than requiring trenches to be dug for underground wires, the overall costs are about 40% lower than other types of EV charger installations.[4]

Melrose Sustainability Manager Martha Grover said that these chargers are meant to encourage more residents to switch to EVs by signaling that charging is easy and accessible, especially those who live in apartments or condos without access to a garage for home charging.[5]

Residents can use the AmpUp smartphone app to charge their vehicles at these stations.[6] Through the company's Electric Vehicle Charging Station Program, National Grid is supporting both the installation of the chargers and the cost of the charging equipment.[7] The city will own and operate the charging stations.[8]

Ground-mounted EV charging stations are already available in Melrose at the city hall parking lot and near the commuter rail station.[9]

Expanding EV charging infrastructure is in line with the city's Net Zero Action Plan, published in April 2022. The plan outlines 31 strategies to reduce global warming pollution, such as promoting EV adoption through a community engagement program and developing standardized signage for EV charging stations.[10] The city's future plans include adding EV charging stations at the public library and working with private property owners to install chargers for their guests and tenants.[11]

1. "City of Melrose Introduces Innovative Electric Vehicle Charger Program," City of Melrose, 22 April 2021, <https://www.cityofmelrose.org/home/news/city-melrose-introduces-innovative-electric-vehicle-charger-program>.
2. "National Grid Installs Pole-Mounted EV Chargers In Massachusetts," Steve Hanley, CleanTechnica, 30 May 2022, <https://cleantechnica.com/2022/05/30/national-grid-installs-pole-mounted-ev-chargers-in-massachusetts/>.
3. "City of Melrose Introduces Innovative Electric Vehicle Charger Program," City of Melrose, 22 April 2021, <https://www.cityofmelrose.org/home/news/city-melrose-introduces-innovative-electric-vehicle-charger-program>.
4. Email communication with Martha Grover, Sustainability Manager, City of Melrose, and Jake Navarro, Director of Clean Transportation Products, National Grid, 9 August 2022.
5. "Melrose Breaks New Ground By Looking Up With Elevated EV Chargers," Patch, 22 April 2021, <https://patch.com/massachusetts/melrose/melrose-breaks-new-ground-looking-elevated-ev-chargers>.
6. "EV Charger Program", City of Melrose, <https://www.cityofmelrose.org/renewable-energy/electric-vehicles/pages/ev-charger-program>.
7. "National Grid Deploys Innovative EV Chargers in Melrose, MA", National Grid, 22 April 2021, <https://www.nationalgridus.com/News/National-Grid-Deploys-Innovative-EV-Chargers-in-Melrose,-MA/>.
8. "National Grid Installs Pole-Mounted EV Chargers In Massachusetts," Steve Hanley, CleanTechnica, 30 May 2022, <https://cleantechnica.com/2022/05/30/national-grid-installs-pole-mounted-ev-chargers-in-massachusetts/>.
9. "EV Charger Program", City of Melrose, <https://www.cityofmelrose.org/renewable-energy/electric-vehicles/pages/ev-charger-program>.
10. *Net Zero Action Plan*, City of Melrose, April 2022, <https://www.cityofmelrose.org/sites/g/files/vyhlif3451/f/uploads/melrose_net_zero_action_plan_v4.pdf>.
11. Telephone communication with Martha Grover, Sustainability Manager, City of Melrose, June 2022.

ENVIRONMENT MASSACHUSETTS
RESEARCH & POLICY CENTER

Renewable Communities 2022

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

Nantucket: Solar on affordable housing

Housing Nantucket, a nonprofit organization, is installing solar panels on six affordable housing units.[1]

Housing Nantucket aims to provide affordable housing options for Nantucket residents who make between 50–150% of the area median income.[2] The organization currently operates 38 rental units across the island, with an additional 22-unit development under construction.[3]

Housing Nantucket is helping some of its tenants reduce their energy costs through rooftop solar. ACK Smart, a solar company on Nantucket, is responsible for installing panels on these six units.[4]

Tenants who receive solar energy through this program will see a modest increase in their rent, in exchange for lower and more predictable electric bills. These solar installations will participate in the state's SMART solar incentive program. Housing Nantucket will allocate the revenue from the SMART incentives, as well as the additional rental income, into a revolving fund to help pay for future clean energy and energy efficiency projects.[5]

Grants from ReMain Nantucket and from the Massachusetts Clean Energy Center's EmPower Massachusetts program have helped Housing Nantucket to launch this solar initiative.[6]

The organization plans to install solar panels on more of its properties in the future. Generating more solar energy on affordable housing properties, and elsewhere on the island, could help Nantucket avoid the need to build an additional underwater transmission cable to ensure a reliable supply of electricity.[7]

1. "Housing Nantucket Taking Steps To Increase Solar Energy On Island," JohnCarl McGrady, Nantucket Current, 22 June 2022, <https://www.nantucketcurrent.com/housing-nantucket-taking-steps-to-increase-solar-energy-on-island>.
2. "About Housing Nantucket," Housing Nantucket, <https://www.housingnantucket.org/about/>.
3. "Affordable Rentals," Housing Nantucket, <https://www.housingnantucket.org/affordable-rentals/>.
4. "Solar panels will cut energy costs for Housing Nantucket tenants," Ella Adams, Cape Cod Times, 16 June 2022, <https://www.capecodtimes.com/story/news/2022/06/16/solar-panels-help-housing-nantucket-tenants-reduce-costs/7622959001/>.
5. "Going Greener," Housing Nantucket, 23 February 2022, <https://www.housingnantucket.org/going-greener/>.
6. "Solar panels will cut energy costs for Housing Nantucket tenants," Ella Adams, Cape Cod Times, 16 June 2022, <https://www.capecodtimes.com/story/news/2022/06/16/solar-panels-help-housing-nantucket-tenants-reduce-costs/7622959001/>.
7. "Housing Nantucket Taking Steps To Increase Solar Energy On Island," JohnCarl McGrady, Nantucket Current, 22 June 2022, <https://www.nantucketcurrent.com/housing-nantucket-taking-steps-to-increase-solar-energy-on-island>.

ENVIRONMENT MASSACHUSETTS
RESEARCH & POLICY CENTER

Renewable Communities 2022

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

Salem: Bluebikes

In June 2021, Salem became the latest city to join the Bluebikes program, adding seven stations and 50 bikes across the city, with an eighth station to be announced.[1]

Bluebikes, originally known as Hubway, is a bike share program that has operated in the Boston area since 2011. Today, Bluebikes serves riders in Boston, Arlington, Brookline, Cambridge, Chelsea, Everett, Newton, Revere, Somerville, and Watertown.[2] Salem is the latest addition to the Bluebikes program and the furthest community from Boston to join so far.[3]

Riders have taken more than 15 million trips on Bluebikes since 2011. Almost 3 million of those rides happened last year, making 2021 the most popular year for Bluebikes yet.[4]

The introduction of Bluebikes to Salem was funded in part by a grant from the Massachusetts Department of Transportation.[5] Bluebikes docks have been installed at high-traffic locations including the Salem commuter rail station, the ferry landing, and Salem State University.[6]

From June 2021 through May 2022, riders in Salem took over 5,100 trips with Bluebikes, with more than 700 trips completed in May alone.[7]

The continued expansion of Salem's Bluebikes as well as other forms of clean transportation is in line with Salem's Resilient Together plan, developed in partnership with the city of Beverly. The plan calls for expanding bike share into neighboring communities, reorienting roadway spending to promote pedestrian and cyclist safety, and providing bicycle parking at major destinations.[8]

1. "Salem joins Bluebikes, Metro Boston's public bike share system," City of Salem, 16 June 2021, <https://www.salemma.gov/bluebikes>.
2. "About Bluebikes," Bluebikes, <https://www.bluebikes.com/about>.
3. "Salem joins growing Bluebikes bikeshare program," Grant Welker, Boston Business Journal, 16 June 2021, <https://www.bizjournals.com/boston/news/2021/06/16/salem-joins-growing-bluebikes-bikeshare-program.html>.
4. "System Data," Bluebikes, <https://www.bluebikes.com/system-data>.
5. "Salem joins Bluebikes, Metro Boston's public bike share system," City of Salem, 16 June 2021, <https://www.salemma.gov/bluebikes>.
6. Ibid.
7. "Index of bucket hubway-data," Bluebikes, <https://s3.amazonaws.com/hubway-data/index.html>. (To calculate the number of rides, we filtered all data results from June 2021– May 2022 to the stations that are in Salem (Salem MBTA, Hawthorne Blvd, Mayor Salvo Path, Shetland Park, Salem Ferry, Salem Willows, Lafayette at Leach Street, Salem State), and counted those values.)
8. *Resilient Together Climate Action & Resilience Plan*, Cities of Beverly and Salem, Spring 2020, <https://kladashboard-clientsourcefiles.s3.amazonaws.com/Beverly-Salem/Resilient+Together+Climate+Action+Plan+Final.pdf>, p. 64.