



## **Testimony in support of the Better Buildings Act (H.3366, S.2232) and the GREEN Act (H.3320, S.2152)**

Joint Committee on Telecommunications, Utilities and Energy  
Wednesday, September 29, 2021

Thank you to the chairs and members of the committee for the opportunity to offer our testimony today. My name is Ben Hellerstein and I am the state director for Environment Massachusetts, the statewide environmental advocacy organization. Environment Massachusetts works to protect clean air, clean water, and open spaces together with our thousands of citizen members and supporters across the Commonwealth.

I am testifying today in support of two bills to reduce fossil fuel use in our buildings and transition to clean heating systems: the Better Buildings Act (H.3366, S.2232), filed by Rep. Maria Robinson and Sen. Becca Rausch, and the GREEN Act (H.3320, S.2152), filed by Rep. Natalie Higgins, Rep. Michael Kushmerek, and Sen. Brendan Crighton.

These bills are action bills. They take necessary steps to meet — and surpass — the Commonwealth’s climate goals.

In March, thanks in large part to the work of your committee, the Legislature passed a climate bill that included a number of important steps to reduce Massachusetts’ global warming pollution and promote renewable energy. These steps included energy efficiency standards for appliances, an increase to the renewable portfolio standard (RPS), and expanded offshore wind procurements. The bill also set statewide emissions goals and required the administration to come up with a plan to meet those goals.

Goals and plans are good, but those goals and plans must lead to action. And action is where the Baker administration is coming up short.

Massachusetts is falling far behind the pace needed on building electrification. Fewer than 500 homes completely replaced fossil fuel heating with heat pumps in 2020.<sup>1</sup> The administration’s

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<sup>1</sup> “Massachusetts should be converting 100,000 homes a year to electric heat. The actual number: 461,” Sabrina Shankman, *Boston Globe*, 21 August 2021, <<https://www.bostonglobe.com/2021/08/21/science/massachusetts-should-be-converting-100000-homes-year-electric-heat-actual-number-461/>>.

response is to appoint yet another committee, the Commission on Clean Heat, to spend a year studying the problem.

If the Baker administration is slow to act, it's up to the Legislature to step in. The two bills we're supporting today will take important, concrete, tangible steps toward meeting and exceeding the climate goals you set in March.

## **The Better Buildings Act (H.3366, S.2232)**

The Better Buildings Act will provide a framework for reducing fossil fuel use and promoting electrification in large buildings, such as office buildings, apartment buildings, hospitals, and university campuses.

This bill closes an important gap in our current policies related to energy efficiency in our buildings. Building codes require new buildings to meet certain standards for energy efficiency. The new opt-in stretch code will spur further improvements to energy efficiency and electrification in new buildings. But there are currently no statewide requirements for existing buildings to become more efficient over time.

In Boston, an estimated 85 percent of the building square footage that will exist in 2050 has already been built.<sup>2</sup> If we're going to meet our long-term climate goals as well as our intermediate targets, we need to make our existing buildings more energy-efficient and replace fossil fuel heating systems with clean alternatives powered by electricity.

The Better Buildings Act will require the owners of large buildings to report their energy use to the state each year. Based on that data, the Department of Energy Resources (DOER) will set energy performance standards for large buildings. Owners of buildings that fall below those standards will be required to make their buildings more efficient. These standards will be designed to reduce emissions from large buildings by at least 80 percent by 2040.

The Boston City Council approved energy performance standards for large buildings last week, and cities from Reno, Nevada to St. Louis, Missouri, have taken similar actions. Passing the Better Buildings Act will help Massachusetts join the cities and states that are taking strong action to address emissions from large buildings.

The following organizations have participated in conversations around the content of this bill: Environment Massachusetts, MASSPIRG, Health Care Without Harm, AIA Massachusetts, Ceres, Boston Climate Action Network (BCAN), Metropolitan Area Planning Council (MAPC), Northeast Energy Efficiency Partnerships (NEEP), and A Better City.

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<sup>2</sup> *Carbon Free Boston Summary Report*, Boston Green Ribbon Commission, 2019, <<https://www.greenribboncommission.org/wp-content/uploads/2019/01/Carbon-Free-Boston-Report-web.pdf>>.

## **The GREEN Act (H.3320, S.2152)**

The GREEN Act will support Massachusetts' Gateway Cities, as well as smaller communities with similar demographics, in leading the way toward a cleaner, healthier, and safer future.

Gateway Cities are home to Massachusetts' industrial past and present, lifelong residents and recent immigrants, major institutions and small businesses, and a long track record of innovation. While the history of these diverse communities is an asset, it also presents a big challenge in the form of aging infrastructure.

Many houses and apartments in Gateway Cities were built decades ago. In Worcester, New Bedford, and Chelsea, the proportion of housing units built before 1939 is 47 percent, 51 percent, and 66 percent, respectively. This compares to 26 percent statewide.<sup>3</sup>

These older buildings were built long before energy codes existed. They often use energy inefficiently, due to a lack of insulation, old appliances, and outdated lighting fixtures. Most homes burn oil or gas for heating, and residents — particularly low- and moderate-income families — may lack the opportunity to switch to cleaner alternatives.

The GREEN Act will establish a new program focused on retrofitting housing in Gateway Cities and similar communities to be energy-efficient, fossil-fuel-free, and powered by renewable electricity. The program will operate in two phases.

Phase 1 of the GREEN Initiative will fund at least one project in each Gateway City and 10 projects in smaller communities each year, focusing on naturally occurring affordable housing units. Each of these projects will retrofit at least 10 housing units to be highly efficient, use clean heating and cooking technologies, and, where possible, be powered with energy from rooftop solar panels. Community engagement and public education is a core part of the program.

The second phase will build on the results of phase one, scaling up the program to operate on a community-wide level.

The GREEN Act will begin to address some of the most challenging building stock in Massachusetts, while developing models that can be replicated and scaled up in communities of all shapes and sizes.

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To conclude, I respectfully ask you to report favorably on the Better Buildings Act and the GREEN Act. These bills are action bills that will move us toward a cleaner, greener, and healthier future for Massachusetts.

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<sup>3</sup> Housing MA: The Massachusetts Housing Data Portal, Metropolitan Area Planning Council, <<http://www.housing.ma/>>.

I have enclosed fact sheets on the two bills we are supporting. You may contact me at [ben@environmentmassachusetts.org](mailto:ben@environmentmassachusetts.org) or 914-420-9706 with any questions. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Hellerstein". The signature is stylized and cursive, with a long horizontal stroke at the end.

Ben Hellerstein  
State Director  
Environment Massachusetts



# The Better Buildings Act

Reducing energy use and harmful pollution from existing large buildings

*An Act relative to better buildings*

Rep. Maria Robinson (H.3366); Sen. Becca Rausch (S.2232)

Our buildings are responsible for a large share of Massachusetts' global warming pollution. Burning oil and gas in residential and commercial buildings — primarily for heating and hot water — produces 27% of our greenhouse gas emissions, and electricity is responsible for an additional 19% of emissions.<sup>1</sup>

Pollution from fossil fuels also harms our health, contributing to asthma, heart attack, and premature birth. A recent study from the Harvard School of Public Health shows a link between air pollution from fossil fuels and a higher rate of death from COVID-19.<sup>2</sup>

To achieve our climate goals and protect public health, we must reduce the amount of energy used in our buildings, while transitioning away from polluting sources of energy toward clean and renewable resources like solar and wind.

Increasing energy efficiency and replacing fossil fuel heating with clean alternatives in large buildings — including office buildings, apartment buildings, and hospital and university campuses — is one way to make rapid progress toward a pollution-free future. Improving the efficiency of a single large building can have the same energy reduction benefits as implementing similar measures in several single-family houses. These energy efficiency measures can also help renters and small business tenants save money on their utility bills.

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<sup>1</sup> "Appendix C: Massachusetts Annual Greenhouse Gas Emissions Inventory: 1990-2017, with Partial 2018 & 2019 Data," Massachusetts Department of Environmental Protection, <<https://www.mass.gov/lists/massdep-emissions-inventories>>.

<sup>2</sup> "Coronavirus and Air Pollution," Harvard School of Public Health, <<https://www.hsph.harvard.edu/c-change/subtopics/coronavirus-and-pollution/>>.

**Contact:** Ben Hellerstein, [ben@environmentmassachusetts.org](mailto:ben@environmentmassachusetts.org)

## How can we reduce energy use in large buildings?

We can reduce energy use in our buildings by installing more efficient appliances and lighting, reducing heat loss through walls and windows, and encouraging tenants to adopt energy-saving behaviors. We can replace heating and cooling systems with efficient electric technologies like heat pumps. We can install rooftop solar panels to generate clean, renewable electricity on site.

The building code requires new buildings to be built to a minimum energy efficiency standard, but there are no statewide requirements for existing buildings to become more efficient. A study in Boston projected that 85% of the square footage that will exist in 2050 has already been built.<sup>3</sup>

The first step toward reducing energy use in large buildings is to require the owners of these buildings to report their energy use on an annual basis. A similar requirement already exists in Boston and Cambridge. Adopting it on the state level would extend the benefits of this program to smaller communities. The second step is to set energy performance standards for large buildings and require the owners of inefficient buildings to reduce their energy use over time. Washington State and cities from St. Louis, Missouri, to Reno, Nevada, have already adopted similar policies.

## What will the Better Buildings Act do?

- The Better Buildings Act will apply to large buildings only. The threshold will start at 25,000 square feet and decrease to 15,000 square feet over time.
- Owners of large buildings will report energy use in their buildings to the Department of Energy Resources (DOER) every year. DOER will make the energy use information available online and publish an annual report analyzing the data.
- DOER will establish energy performance standards for different types of large buildings. The least energy-efficient buildings will be required to reduce their energy use or greenhouse gas emissions by at least 20 percent over five years. These standards will achieve an 80 percent emissions reduction from large buildings by 2040.
- DOER will work with utility companies to provide information and incentives to help building owners meet the standards.
- Owners of buildings that fail to meet the standards can pay an alternative compliance payment.
- Cities and towns can establish their own energy disclosure requirements and performance standards for large buildings, similar to existing programs in Boston and Cambridge.

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<sup>3</sup> *Carbon Free Boston Summary Report*, Boston Green Ribbon Commission, 2019, <[https://www.greenribboncommission.org/wp-content/uploads/2019/01/FINAL\\_CFB\\_SummaryRpt\\_FEB19.pdf](https://www.greenribboncommission.org/wp-content/uploads/2019/01/FINAL_CFB_SummaryRpt_FEB19.pdf)>.



## The GREEN Act

### Gateway Cities Renewable, Efficient, and Electrified Neighborhoods

*An Act establishing the GREEN Initiative*

H.3320, Rep. Natalie Higgins and Rep. Michael Kushmerek

*An Act establishing the gateway cities renewable, efficient, and electrified neighborhoods initiative*

S.2152, Sen. Brendan Crighton

Gateway Cities are home to Massachusetts' industrial past and present, lifelong residents and recent immigrants, major institutions and small businesses, and a long track record of innovation. While the history of these diverse communities is an asset, it also presents a big challenge in the form of aging infrastructure.

**Many houses and apartments in Gateway Cities were built more than a century ago.** These buildings often use energy inefficiently, due to a lack of insulation, old appliances, and outdated lighting fixtures. Most homes burn oil or gas for heating, and residents — particularly low- and moderate-income families — may lack the opportunity to switch to cleaner alternatives.

**Inefficient homes, heated with fossil fuels, are harmful to the people who live in them and to the broader community:**

- Burning oil and gas releases air pollution linked to asthma, heart attack, and other diseases. A growing body of research connects gas stoves with poor indoor air quality and health problems.
- Climate change, caused by pollution from fossil fuels, is increasing the frequency and severity of damaging storms and heat waves.
- Residents face high utility bills, and many find it too expensive to heat their homes to a comfortable temperature during the winter months.
- Our reliance on dangerous fossil fuels can lead to tragedy, as experienced in the 2018 gas explosions in Lawrence, Andover, and North Andover.

While utilities and state agencies offer energy efficiency programs, these programs don't always serve the residents of Gateway Cities adequately. Many obstacles can stand in the way of efficiency improvements, including language barriers, a lack of access to credit, split incentives between landlords and tenants, and the need to make structural repairs before homes can be retrofitted. These obstacles are especially significant for private rental housing occupied by low-income tenants.

These challenges are real, but they are solvable. **With the right support and incentives, houses and apartments can be retrofitted to be efficient, fossil-fuel-free, and powered with renewable electricity.** The result will be cleaner, healthier, and safer communities for all.

Gateway Cities, as well as smaller communities with similar demographics, have an important role to play in the statewide transition to 100% renewable energy. The GREEN Act will bring together residents, building owners, community organizations, and municipal and state officials to create solutions for energy-efficient, pollution-free homes. Through innovative action at the local level, these communities can lead the Commonwealth toward a greener future.

## **What does the GREEN Act do?**

The GREEN Act will establish a new program — the Gateway Cities Renewable, Efficient, and Electrified Neighborhoods Initiative, or GREEN Initiative — to retrofit low- and moderate-income housing in Gateway Cities and in smaller communities with similar demographics.

Phase 1 of the GREEN Initiative will fund at least one project in each Gateway City and 10 projects in smaller communities each year, focusing on naturally occurring affordable housing units. Each project will retrofit at least 10 housing units to be highly efficient, use clean heating and cooking technologies, and, where possible, be powered with energy from rooftop solar panels. Local governments and nonprofit organizations will oversee the projects and share the results with the broader community. The GREEN Initiative will provide additional incentives and technical support to assist with retrofits, in coordination with existing state and utility programs.

After two years, the Department of Energy Resources will collect data on the results of Phase 1 and identify the most effective retrofit approaches for each housing type. DOER will convene an interagency task force to design and oversee Phase 2 of the GREEN Initiative, which will continue for at least eight more years.

### **Contact:**

Ben Hellerstein, [ben@environmentmassachusetts.org](mailto:ben@environmentmassachusetts.org)

Sarah Dooling, [sarah@massclimateaction.net](mailto:sarah@massclimateaction.net)