



May 19, 2022

The Honorable
Ronald Mariano
Speaker, Massachusetts House of
Representatives
State House, Room 356
Boston, MA 02133

The Honorable
Karen Spilka
President, Massachusetts State Senate
State House, Room 332
Boston, MA 02133

The Honorable
Jeffrey N. Roy
Chair Joint Committee on
Telecommunications, Utilities, and Energy
State House, Room 109D
Boston, MA 02133

The Honorable
Michael J. Barrett,
Chair Joint Committee on
Telecommunications, Utilities, and Energy
State House, Room 43
Boston, MA 02133

Re: Decarbonizing the Commonwealth's Buildings

Dear Speaker Mariano, President Spilka, Chairs Roy and Barrett:

Our organizations are committed to identifying and advocating for the essential **building decarbonization strategies, legislation, and regulations** that will allow Massachusetts to meet its greenhouse gas (GHG) emission targets and get us to net zero emissions by 2050. **Climate legislation that is under review by the Joint Committee on Telecommunications, Utilities, and Energy (TUE) and the wind bill currently in conference committee are opportunities to dramatically advance the Commonwealth's efforts to decarbonize buildings.**

Getting there as soon as possible is critical, given the findings from the latest [report](#) from the International Panel on Climate Change (IPCC). The report concludes with a "now-or-never" [final warning](#) that **global GHG emissions must [start rapidly declining now](#) and be cut in half in the next decade.** Otherwise we will be leaving an unlivable planet to our children and grandchildren. .

Decarbonizing Buildings

As you are likely aware, buildings account for 27% of GHG emissions in Massachusetts and more if you include their use of fossil fueled electricity. The challenges we face in decarbonizing buildings are many and daunting, including **retrofitting more than 2.5 million housing units to achieve high energy efficiency and to heat with electricity as well as about 750,000 commercial properties.** .

It is critical that we accelerate efforts to decarbonize buildings given the magnitude of their emissions and the challenges. The climate bill you are currently considering is a great opportunity to facilitate the implementation of several key strategies for building decarbonization. These are:

- Developing and implementing **large building performance standards.**
- **Optimizing Mass Save** and providing other funding to accelerate retrofitting residential buildings.
- Implementing **programs and incentives for municipal leaders** to decarbonize buildings in their cities and towns.
- **Establishing a Green Bank** to offer low interest loans to building owners for retrofitting buildings.
- **Preparing the workforce** to design, install and maintain the systems needed to accelerate powering buildings with electricity.
- Assuring that all new construction and major renovations are **100% powered by electricity**, including heating, cooling and appliances.

Performance Standards for Large Buildings

Although relatively small in number compared to small residential buildings, large commercial and residential buildings account for a significant proportion of building floor area, which is highly correlated with energy use and GHG emissions. **In Boston, buildings of 20,000 sq. ft. or more account for about 50% of all floor space** and thus may be responsible for about 50% of emissions. We need to implement requirements for measuring emissions from those large buildings to know the magnitude of the challenge we face.

Measuring emissions is the place to start, followed by phasing in reasonable emission and energy use targets for buildings to meet with an appropriate set of enforcement mechanisms. Owners of large buildings, if provided with financial mechanisms to make renovations affordable (e.g., PACE program, Green Bank) have the capacity to meet reasonable targets, but it is highly unlikely they will do so in a timely fashion if they are not required to comply.

Boston has already begun the process of accelerating decarbonization of large buildings with its Building Emissions Reduction and Disclosure Ordinance (BERDO) and will be

receiving the first round of emission measurements in 2022. They are now preparing proposals for performance standards. If charged with developing similar plans for the state, the Department of Energy Resources (DOER) could be collaborating with and learning from their Boston colleagues to get the state on board with a similar plan quickly, and **we cannot afford to delay even one year.**

We recommend charging DOER with developing requirements for large buildings to report GHG emissions and energy use annually by the end of 2023 and developing performance standards for these buildings and compliance mechanisms June of 2024. The Senate included the measurement requirement in its climate bill but rejected an amendment on performance standards.

Optimizing Mass Save and Funding Residential Retrofits

While the Mass Save program is rated as the top energy efficiency program in the U.S., **reforms are needed to expand the scope of supported equipment, increase participation by low- and moderate-income homeowners and renters, and increase transparency.**

S.2819 proposes four changes to the Energy Efficiency Advisory Council (EEAC) and Mass Save programs:

- Requiring **better metrics** on performance of incentives and on equitable distribution of incentives as well as more frequent and detailed reports on program performance.
- **Expanding covered technologies** to include those that combine energy efficiency and electrification with renewables.
- **Eliminating support for new fossil equipment** and workforce development or training as it relates to new fossil fuel equipment unless such support is for a backup or supplemental thermal energy source for a heat pump.
- Consideration of historic and current participation by low- and moderate-income households that rent in the development of programs to achieve **equitable access and eliminate disparities in program uptake.**

We encourage TUE to take whatever steps they deem appropriate to be sure these measures are contained in a climate bill adopted by both the Senate and the House. In addition, we urge TUE to include in its climate bill requirements for Mass Save to offer financial support for:

- **Replacement of other fossil fuel powered appliances** (e.g. water heaters, stoves) besides gas/oil furnaces and boilers with appliances powered by electricity when such replacement will cost effectively reduce the use of energy and/or fossil fuels.
- **Duct sealing, and air sealing, and upgrading of an electrical system** as needed for installation of heat pumps. These measures may be essential for some households to be able to make the most efficient and effective use of heat pumps.
- **The installation of solar panels, batteries, and thermal storage** that reduces the amount of electricity a building requires from the electric grid,
- **Leasing of heat pumps** if connected to a geothermal network

The support for rewiring and upgrading of electric service is particularly important because the greatest reduction of energy use and GHG emissions in the residential building sector covered by Mass Save will come from retrofitting currently uninsulated buildings that have knob-and-tube wiring and that do not have at least 100 amp service. Those buildings, of which a large number are rented multi-family rental units, use two to three times more energy than a modern unit of the same size. They will require significant investments to cover rewiring and upgrading of electric service to allow for insulation and installation of heat pumps.

Programs and Incentives to Advance Municipal Leadership

The Green Communities program within DOER has been successful in supporting many municipalities to make public buildings more energy efficient, but municipalities need such support to do much more than this, including transitioning vehicle fleets to zero emission vehicles, installing charging stations, deploying microgrids, financing alternative energy projects on municipal land, motivating businesses and residents to adopt energy efficiency measures and more. **Section 12 of H.3350 includes a comprehensive list of measures we believe the Green Communities Program should be authorized to support through climate legislation.**

Municipalities can also engage more actively in the state's efforts to achieve its emission goals if they are given the support and tools to track energy use and emissions and to develop and implement comprehensive emission reduction plans. Section 13 of H.3350 describes an approach to accomplishing those tasks that we urge TUE to include in its climate bill.

Green Bank

Clearly, the legislature needs to think about **long-term funding for the work of decarbonizing buildings**. There is simply too much to do and this work can only be accomplished if we have the incentives, grants, and other sources of funding required to allow building owners to do the work.

Several states have been successful in attracting private capital to address climate change through establishing green banks. We should make this source of low interest loans available in Massachusetts. **We recommend that TUE include Representative Paul Mark's Green Bank Bill (H.3340) in its climate bill.** The Green Bank would need an initial \$50-100 million in state funding and would use that to attract private capital.

The oldest green bank in the United States is the Connecticut Green Bank, which has been operating for ten years with solid success. The US Green Bank Alliance and the Coalition for Green Capital assist new green banks and can provide advice and guidance on establishing and operating a green bank. In addition, the Coalition for Green Capital assists green banks in finding investors. We are aware that the TUE has heard a presentation from Jeff

Schub with the Coalition for Green Capital and trust that he fully addressed the committee's questions about green banks..

Workforce Development

Given the scale and speed needed to decarbonize buildings in Massachusetts, ensuring a workforce fully competent in the design, installation and maintenance of effective clean energy solutions is paramount. In addition to creating a task force to develop a clean energy jobs plan in which equity, justice and diversity are key elements (as proposed in *Building Justice with Jobs*: [H.3365](#)), we need specific organizational means for identifying and acting on high-impact opportunities over the time needed to complete decarbonizing buildings.

Some specific organizational approaches the committee should consider are in the *Just Transition to Clean Energy bills* ([H.1954](#) + [S.1197](#)) in which a Just Transition Office (JTO) identifies relevant workforce groups, provides employment, training, incentives and benefits, as well as develops requirements for employers. The JTO - as laid out in *Clean Energy Workforce Standards & Accountability Act* ([H.1955](#) + [S.1198](#)) - would partner with the Massachusetts Clean Energy Technology Center to develop and implement successive 5-year workforce development plans adjusted to the specific findings of its research.

Regardless of which administrative entity is ultimately chosen, tapping the insights and lessons learned from relevant businesses and nonprofits is essential to pursuing robust and realistic solutions that also reflect the values of equity, justice and diversity.

Local Option for All Electric New Construction

Failing to fully electrify all new buildings and major rehabs would be a tragic missed opportunity to advance the Commonwealth's climate goals and would mean many of these buildings would need to be retrofit in the future to reduce emissions.

A new opt-in stretch building code is under development by DOER and will not be finalized until the fall of 2022. Its first draft includes strong incentives for builders and developers to make new buildings all electric. While a step in the right direction, the incentives are not strong enough to assure electrification of all new buildings.

While Massachusetts' building decarbonization advocates continue to call for DOER to include an all-electric requirement in the opt-in code, the Baker administration has gone on record opposing the requirement. **We cannot take the risk that the code that is ultimately approved fails to require all-electric new construction. At a minimum we must give municipalities the power to require all new construction and major rehabs to be all electric** except in certain rare situations where some gas may be needed for special functions.

Given that some developers have been able to go all-electric without incurring extra costs, municipalities should have the authority to require new construction and major rehabs to be

all-electric. If some developers and builders feel they cannot economically go all electric, then we should implement an educational program to get them up to speed. If a developer or builder has a genuinely valid reason for not going all electric in a particular case, municipalities could establish an appeals process for reviewing their claim and allowing for appropriate exceptions.

Of course, developers and builders want more time. Making change is not easy, but the climate crisis cannot wait for them to get on board with all-electric buildings at their own pace. Enabling some municipalities to start this process now will prime the pump for others later.

By making the all-electric requirement opt-in for municipalities, each town and city will have the opportunity to hear from builders and developers in their area before deciding to adopt an all-electric requirement. The Senate climate bill allows for 10 municipalities to adopt the all-electric local option. These pilot-test communities will provide data on their experiences that can help prepare all municipalities to adopt an all-electric requirement. **We urge you to include the local option in your climate bill for at least 20 communities.**

Thank you for considering our comments. We look forward to a climate bill this session that seriously addresses decarbonization of buildings.

Sincerely yours,

Roger Luckmann MD MPH on behalf of
Elders Climate Action Massachusetts

Adele Franks on behalf of
Climate Action Now Western Massachusetts

Elizabeth Foster-Nolan, President
League of Women Voters of Massachusetts