Global Warming Solutions Act (GWSA) Implementation Advisory Committee (IAC)
Buildings Work Group
Top Six Policy Priorities for the 2030 Clean Energy and Climate Plan
September 28, 2020

Preamble

During 2019, Global Warming Solutions Act (GWSA) Implementation Advisory Committee (IAC) members with particular expertise in the buildings sector developed a set of four comprehensive policy recommendations for the Commonwealth to consider in developing its Decarbonization Roadmap to 2050. These recommendations called for setting mandatory emissions reduction limits on the building sector statewide by 2020; making the building code 2050-compliant; requiring expanded, detailed building performance and emissions reporting, benchmarking, and improvements; and requiring a cross-sectional focus that enables the Commonwealth to actively maintain a dynamic, cross-sector, integrative design approach that leverages win-win options that advance multiple goals simultaneously wherever possible. These policy topic areas as well as the details described within continue to serve as recommendations to the Executive Office of Energy and Environmental Affairs (EEA).

Following the development of these policy recommendations, submitted in August 2019, the GWSA IAC has sought to follow the state's progress, has engaged in further discussions and research on current and emerging issues, and has received feedback from the newly formed GWSA IAC Climate Justice Work Group (CJWG). Informed by these processes, the Buildings Work Group has now spent several months honing in on our top six policy priorities that we urge EEA to elevate in its update to the state's Clean Energy and Climate Plan for 2030 (CECP). We will first identify underlying concepts, assumptions, and policies that buttress our top six policy priorities and provide the foundation from which to understand their prioritization.

It is our expectation that the Commonwealth's investments in climate change mitigation will be much greater than they are to date, and scaled appropriately in the near-, medium-, and long-term to avoid the worst impacts of climate change, protect the most vulnerable, be responsive to the communities most harmed, and maximize the opportunities and benefits of a climate-smart Commonwealth fueled by clean energy. We expect that building sector decarbonization will be pursued aggressively through many strategies, some that might only enable actions now to reach deep decarbonization by 2050. We moreover expect that the approximately 2 million existing buildings in Massachusetts will be prioritized for rapid and deep energy retrofits, as the vast majority will likely still be standing in 2050. The wave of new construction anticipated this decade will need to reflect the robust knowledge and best practices of the state's green building practitioners so as to minimize the necessity for, and cost of, deep energy retrofits in the future.

We acknowledge and appreciate the climate justice recommendations, which we have integrated into our top 6 policy priorities as applicable. We also acknowledge the moment of deep uncertainty, risk, and challenge due to the global pandemic. In planning for 2020 to 2030, we want to be cognizant of potential pandemic carry-on effects while not over-calibrating or delaying

our response; rather, we encourage the state to gear up for a green and just rebuilding effort as soon as 2021. In this, we call on Massachusetts to respond to the urgency of the climate crisis with bold and comprehensive action as a global leader. This leadership should include pricing carbon economy-wide; integrating a just social cost of carbon; embedding a holistic climate change lens throughout statewide program design, development, implementation, and evaluation; empowering local jurisdictions to accelerate building decarbonization via funding, policy flexibility, and technical assistance tools; pairing mitigation with resilience and a cross-sectoral focus; and prioritizing MWBE workforce development and hiring opportunities in energy efficiency, renewable energy, and climate-related programs.

With our partners at the state, IAC member organizations, CJWG members, and other engaged stakeholders and communities, we look forward to discussing and developing paths forward for our top six policy priorities as well as the other policy strategies and tactics that will be required to enable the Commonwealth to achieve a net zero future.

Buildings Work Group Top Six Policy Priorities

Buildings Priority 1

Set mandatory GHG emissions reduction limits on the building sector statewide by 2025 (enforcement starting by 2030), starting with larger C&I and residential buildings and including smaller C&I and residential buildings, via either a CO2e intensity per square foot building performance standard (i.e. calculating a building's cap by multiplying its square footage by the emissions intensity limit for its building type) or a carbon fee on utility bills, with alternative compliance payments or fines for non-compliance and a portion of the revenue returned (likely via utility bills if collected in that manner) to low-and-moderate income households and small businesses proportionate with their ability to pay.

Buildings Priority 2

Realign three-year energy efficiency programs and Mass Save cost-effectiveness fully with Global Warming Solutions Act (GWSA) mandates, prioritizing GHG reductions and equity outcomes such as improved air quality and public health within the cost-benefit analyses, including per-measure and per-sector calculations, performance incentives, and goals, by mid-2023 to be fully integrated into the 2025-2027 energy efficiency plan.

Buildings Priority 3

Set a mandatory threshold for the percentage of space heating and cooling and water heating statewide from renewable and highly efficient clean electric sources, particularly heat pumps (air-, ground-, or water-source), providing sufficient incentives for early retirement and fuel switching solely to technologies utilizing non-fossil fuel sources.

Buildings Priority 4

Establish a large-scale statewide financing program or climate bank for building sector decarbonization (non-fossil fuel) by 2025 that includes ample funding support for, but is not limited to, deep energy retrofits (building on models of Energiesprong and RetrofitNY), equitable workforce development, local and district-scale projects, renewable energy generation, and projects that advance both GHG reductions and climate adaptation or resilience, while also requiring that barriers to building decarbonization be removed in other state funding/financing programs, such as the Community Preservation Act and Massachusetts School Building Authority.

Buildings Priority 5

Adopt a net zero stretch code pathway by 2022, consolidating into a single stretch code no later than 2030 for new construction and major renovations that is net zero and disallows combustion for primary heating and fossil fuels for all applications.

Buildings Priority 6

Set rigorous annually-increasing targets for serving populations traditionally underserved by Mass Save, including moderate-income ratepayers, renters, those with limited English proficiency, small businesses, and Environmental Justice communities.

Appendix

The GWSA IAC Buildings Work Group narrowed our identified policy priorities initially to eight items and then voted on each participating organization's top six. The other two priorities that received a good amount of support and attention but did not rise to the top six were as follows:

Buildings Priority 7

Fully subsidize at appropriate touchpoints heat-pump heating and cooling systems, pre-weatherization/electrification barrier mitigation, and whole-building retrofits for Environmental Justice communities, low-to-moderate income residents, renters (integrating anti-displacement requirements in subsidy approval), and limited English proficiency customers via Mass Save or a comparable program.

Buildings Priority 8

Develop and codify requirements to enable electrified end uses to readily support the grid, including near-real time advanced metering infrastructure (AMI) or some combination of time-of-use and real-time electricity pricing, and specifying data formats and connectivity interfaces for load management of electric space- and water-heating equipment.

In addition, several policy concepts were championed by at least one work group member during our deliberations throughout the summer of 2020. Many overlap with the priorities above or otherwise deserve consideration. These are listed here, in no particular order:

- Statewide data platforms
- Appliance standards
- Solar requirements for buildings
- Minimum efficiency requirements for rentals, leases, and sales
- Fossil fuel technology phase-out, including gas cooking
- Leveraging storage and other demand management and climate resilience technologies, including a distribution grid-scale load management program
- More fully incentivizing, enabling, and funding municipalities and regions to decarbonize new and existing buildings
- Statewide building reporting, disclosure, and compliance program
- Incentivizing landlords and renters to share the costs and benefits of efficiency upgrades
- Incentivizing commercial, institutional, and industrial building energy efficiency investments in existing and new buildings beyond current Mass Save offerings
- Focus on ultra-efficient building envelope and enclosures for new and existing buildings, such as Passive House standards
- Prioritization of energy efficiency and renewables in the Qualified Allocation Plan (QAP)

- Creation of a one-stop portal that not only collects and aligns MassHousing funding, federal funding, and other funding sources for affordable housing, but also prioritizes clean energy within the allocation of those resources
- Codes for standby power levels for builder-installed loads, such as GFCI and smoke, fire, and CO2 alarms