

Maine Climate Council (MCC)

Buildings, Infrastructure & Housing (BIH) Working Group Meeting

December 7, 2023

Virtual via Zoom

In attendance:

Working Group members: Michael Stoddard, Kathleen Meil, Eben Perkins, Don McGilvery, Todd Rothstein, Matthew Pitzer, Chris Kessler, Sharon Klein, Tom Twist, Pat Stanton, Steve Hudson, Francis Eanes, Dan Dixon, Naomi Beal, Jesse Thompson, Pat Strauch, Gary Fearon, Jason Shedlock, Deb Paredes, Rozanna Patane, Safiya Khalid

Staff: David Plumb, Molly Siegel

Welcome

- Working Group (WG) co-chairs Kathleen Meil and Michael Stoddard introduced new WG members and those who weren't present at the first meeting, and reviewed the meeting goals and agenda.
- Co-chairs reminded the group that members of the public can contact the BIH working group at any time using the MCC Contact webpage:
<https://www.maine.gov/future/initiatives/climate/climate-council/contact>

Review BIH Targets and Progress

- The co-chairs reviewed the [modeling](#) and assumptions that were used to come up with the targets in the 2020 climate plan
- For example, using the assumption of a 60% emissions reduction from switching a home from fossil fuel consumption to heat pumps, the emissions modeling consultants determined that in order to meet Maine's emissions goals, we would need 115,000 homes wholly heated by heat pumps, plus 130,000 more homes with either one or two heat pumps, plus a proportionate number of commercial buildings incorporating heat pumps.
- The modelers reviewed four different scenarios with slightly different assumptions (numbers of heat pumps, number of homes weatherized, etc.). Each scenario would reach Maine's 2050 emissions goals, but only some of them would reach the 2030 goals.
- The co-chairs reviewed Maine's progress towards the buildings-related targets in *Maine Won't Wait*, as well as equity metrics. These numbers can be found in the [2023 Maine Won't Wait progress report](#).
- The co-chairs also reviewed areas where the Maine Climate Council has **not** set numerical targets, such as building codes, affordable housing, and demand management. The co-chairs clarified that the latest building code currently being adopted in Maine for new construction, the 2021 IECC, is not "net zero".
- AVESTA Housing analyzed how much it costs to build efficient buildings and found that, in most cases, total costs were lower due to significantly lower operating costs.

Prioritization Discussion- how the WG will spend its time

Attendees submitted anonymous answers to the question: “What are the **most important considerations** the Buildings WG should discuss as it develops recommendations for Maine’s updated climate action plan?”

The group voted on the answers using an online poll. The most popular responses (ranked by number of votes) were:

- Workforce Development, Well-paying jobs w/comprehensive benefits and the ability to recruit, train and retain workers.
- Consider how Maine's most vulnerable populations will access the benefits of energy efficient buildings
- How well do the new financial incentives line up with the need on the ground? Eg heat pump rebates; lack of rebates for energy audits
- Maximizing whole house heat pump adoption and targeting residential oil consumption
- Workforce and funding for deeper level low income retrofits
- Consideration and analysis of the cost of such aggressive electrification goals, and consideration of RNG, hydrogen, and other low carbon fuels to ensure reliability and resiliency.
- Compare costs of strategies per ton of carbon reduced
- Workforce development training for energy programs
- We could identify areas where we are not going to hit our goals, and focus on mapping out a working strategy for those areas.
- Human behavior and what affects human behavior beyond financial incentives
- How to accelerate climate friendly building material production in Maine equity of adoption of clean energy equipment among all income levels
- Eliminate barriers and fear re: new building codes present in Rural maine
- The coordination of buildings and the electrical grid
- As significant \$\$ flows into Maine during CAP revision process, we should discuss "what" is available, "how" to access, and "who" can help businesses, homeowner, & others.
- Funding action Harmonizing funding with development process
- Upfront grant vs reimbursement
- Consideration of the promotion of durable building construction.
- Cost benefit analysis for measures
- Creative but "doable" ideas
- Alternative financing methods to get us there faster....
- Plans to improve the power grid to accept future solar arrays Improved investment in solar rebates
- Continued work on battery storage with rebate programs
- Rebate programs in GEO thermal
- Ensuring that there is effective oversight and quality assurance/quality control of new construction, weatherization and heat pump installations to make sure improvements are effective.
- Costs for low and very low income residents.
- New technologies are making big progress. Materials studies may lead to more energy efficient building materials.

- Balance of upgrading financially
- Green vs Real World, ie in our rural town there will be a lot of fossil fuel and in many households, wood burning stoves prevail regardless of income level

Discussion

- Suggested themes for further review by the Work Group that emerged in the open discussion were:
 - Public education about the value of efficiency
 - Preparing contractors and other members of the workforce to help us meet our energy efficiency goals
 - Equity, including closing the gap for low income households, possibly through financing
 - Looking at who is using available rebates and incentives to make sure they are meeting Maine consumers' needs, particularly the most vulnerable populations
 - Grid resilience and demand management, in collaboration with other working groups
 - Modeling the full costs and benefits of energy efficiency in affordable housing
 - Focusing on the activities with the highest impact on emissions, such as switching to whole-home heat pumps
 - Balancing our commitments to emissions reductions AND our commitments to community resilience and equity

Next Steps

- Co-chairs will reach out soon with information about upcoming BIH meetings in 2024, including some in-person meetings
- Attendees are encouraged to email WG staff if they have ideas about presenters that could add value to WG discussions. Please email amalia.siegel@maine.gov with suggestions.