

Buildings, Infrastructure & Housing (BIH) Working Group Meeting

Maine Climate Council

March 20th, 2024, 2-5 pm

In-person & Virtual via Zoom

Meeting Purpose: The BIH Working Group met to take inventory of progress and funding, including potential funding gaps, for continuing the progress of weatherization and heating systems in existing buildings.

In Attendance:

Working Group Members: Sharon Klein, Matt Pitzer, Kathleen Meil, Bridget, Michael Stoddard, Naomi Beal, Tom Twist, Don McGilvery, Dan Dixon, Matt, Eben Perkins, Representative Christopher Kessler, Dale Basher, Elaine Clark, Pat Stanton, Rozanna Patane, Mark Salisbury, Jeff Marks, Scott Brown, Deb Paredes

Staff: David Plumb, Molly Siegel

- **Recap of BioHome3D tour:** Tour of the UMaine Advanced Structures and Composites Center's [BioHome3D](#), the world's first 3D printed, 100% bio-based home It is a big and positive step in how we do housing!
- 3 important points:
 - What it's made of: locally sourced wood fiber and bio-based resin, wood fiber insulation, blown-in cellulose insulation, all recyclable materials
 - It is efficient
 - Scaling up seems possible
- WG members also noted how beautiful BioHome3D is!
- For this model, the walls, floor, and roof are all printed; additional components (counters, window frames, etc.) *could* be 3-D printed in future homes

Presentations

MaineHousing – Amanada Roy & Genevieve Soucy

- **Weatherization assistance program (WAP)**– for low-income customers eligible for LIHEAP
 - Reduces energy cost, improves energy efficiency, & ensures participant health and safety (mold, mildew, air contaminates, unsafe wiring)
 - Community benefits: training and technical assistance, workforce development, training center
 - Funding from Department of Energy (DOE)
 - DOE guidelines require an energy audit + improvements that address the whole home – but also cap the per-home investment at \$8,250
 - Since the average project cost is \$17,446 per home, MaineHousing has a \$9,196 shortfall on every home retrofitted through WAP
 - LIHEAP funding fills that gap
 - There is a limited pool of funding to address pre-weatherization (pre-Wx) needs
 - Pre-Wx services are delivered through CAP agencies, which can address ~27 homes per year *in total* across the state

- For 2023 program year: MaineHousing expects to weatherize 375 total home units through WAP (312 to date)
 - These are primarily single-family (1-4 unit) homes
- **Heat pump program:** funded by DOE Sustainable Energy Resources for Consumers (SERC) grant
- **Central heating improvement program (CHIP):** heating system repairs, replacements, chimney, etc.

Discussion

- Can we spread the WAP funding to reach more homes?
 - Theoretically, we could target improvements that give the client the best savings within the DOE per-home budget of \$8,250
 - DOE does not allow that – despite MaineHousing’s advocacy
- Any data on carbon reduction through home weatherization? Can we get some data on this topic to see how the first \$8,000 of carbon and money savings compare to the next \$8,000
- The group discussed the tensions between doing more comprehensive projects and focusing on the topmost carbon and money saving aspects of the home
- Technical note: savings to investment (SIR) ratio needs to be 1.0 to work with the home
- Other Issues – training, identification, and availability of qualified contractors

Downeast Community Partners – Dale Basher

- Shared video and photos of home repairs
- CAP agencies (including Downeast Community Partners) deliver pre-Wx services before WAP-funded retrofits
 - Downeast Community Partners worked on 7 homes last year
 - Roof replacement is a common issue in homes
 - 61% of homes are rejected from the program because they need more pre-Wx services than Downeast Community Partners can deliver
- Works with trained volunteers to deliver pre-weatherization upgrades
- Issues: Need data to show pre- and post-weatherization, and staffing issues

Efficiency Maine's initiatives for weatherization and heat pumps - Bridget Gifford & Michael Stoddard

- On track to meet low-income heat pump goals from *Maine Won't Wait* (MWW) (10,000 heat pumps)
- On track to meet weatherization goals for 2030, if budget level is maintained
- Heat pumps rebated have increased from 2018
 - Over 140,000 rebates for heat pumps which is over the MWW goal
- Program offerings: insulation incentives, rebate, tax credits
 - Low income (MaineCare, TANF, SNAP, HEAP), get 80% of rebate cost
 - Moderate income (<\$70,000 for single tax filers or <\$100,000 for joint filers), get 60% of rebate cost
 - Any income, get 40% rebate cost

Discussion

We need to start looking into the data to see how much carbon the work we are doing is reducing – do our goals still make sense based on the current data (or should we adjust the goals)?

York Energy Coaches - Rozanne Patane

- Discussed the Energy Coach Program, how she works with educating people about heat pumps and familiarizing people with rebates and tax credits, and her observations:
 - Renters feel left out
 - Need better public awareness & education on heat pumps
 - Sometimes it just takes people a long time to understand their options and commit to a path forward!

Recommendations for the Maine Climate Council

- Prioritizing the most cost-effective and carbon reducing repairs/designs (carbon abatement)
- Spread the word better – support local initiatives, outreach, and education to make sure there is not misinformation
- Better workforce training
- Address state licensing issues
- Energy coach to be a paid position
- Home repair program
- Indoor air quality/ventilation
- Eliminate fossil fuels from LIHEAP
- Retrofit schools and design for good air quality
- New up-to-date data
- Targets for larger buildings
- Scale of funding