



**MEETING NOTES
BUILDING EMISSIONS PERFORMANCE STANDARD
OPEN HOUSE #2
SEPTEMBER 28, 2020**

The purpose of this Open House was to:

1. Remind attendees of the policy context and development process;
2. Give a detailed overview of the technical analysis process, methodology and preliminary draft results;
3. Report out on the resident advisory group process and initial feedback received for participating residents.
4. Discuss topics raised in the previous meeting in more detail.

Record of the chat from main presentation:

Questions about the process or the presentation:

Rickie Harvey, BCEC: "Is there a list of the TAG members that we could peruse?"

- Available on our webpage

Kenneth Vennard: "Do you have colorblind friendly versions of these graphics?"

- We will update graphics so that they are colorblind friendly moving forward.

Bunker Henderson: "Am I correct in thinking that one or more written reports will be issued in December at the end of this process?"

- A final report of the technical analysis will be made publicly available in upcoming months.

Questions about the technical analysis:

Blake Jackson: "I truly hope to see the types of requirements evolve to include interior fit-outs. They utilize a great deal of energy; however, they are given a "free pass" by not being required to even be "LEED Equivalent" - negating all the work required to make them so by core and shell teams/projects."

- The performance standard is not developing specific requirements for building interventions; these are regulated under the MA building code. Total emissions will be considered in determining if a building has met its building targets.

Linda Hirsch, BCAN: "What is an abatement cost?"

- Abatement cost refers to mitigation abatement cost, or the cost to reduce or remove emissions.

Questions and comments about district energy:

Mike Prokosch: "A TAG question: what sorts of district energy systems is the TAG looking at? Right now district energy in Boston looks like Veolia's fossil fuel-driven steam network"

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and the MATEP diesel-fueled cooling and heating system for the Longwood Medical Area. But cities like Toronto and Vancouver are counting heavily on district heat exchange systems using lakes and oceans, as Boston could. And National Grid is about to launch a pilot study using geothermal energy to heat and cool buildings by repurposing existing gas distribution pipelines and decentralizing that grid. Is the TAG looking at any of those as it weighs the cost and carbon reduction potential of district energy?”

Blake Jackson: “We should also consider waste-to-heat options to close the loop between waste and emissions - another component of the Carbon Free 2050 Plan.”

Sara Driscoll: “Are any of them in the US?”

Philip Eash-Gates – Synapse (he/him): “Mike, I forgot to mention geothermal district heat systems. We have included those among our case studies.”

Philip Eash-Gates – Synapse (he/him): “There was an excellent local study by HEET on this that we’ve reviewed as well.”

Ania Camargo: “Eversource is also proposing networked geothermal pilots to replace leaky gas pipes. (to add to Mike’s question)”

- Answered live; Synapse Energy Economics studied Boston’s local district energy systems and sourced case studies from Europe and the U.S., including geothermal, waste-to-heat, and heat recovery systems.

Questions about the Resident Advisory Group:

Michele Brooks: “Curious about the communities that have been engaged in the resident advisory group - who have these conversations been happening with?”

- Answered live; One Square World and ACE have engaged City Life/Vida Urbana, Chinese Progressive Association and New England United for Justice to reach out to their bases. These partners were selected because of extensive work in housing policy and environmental justice, and strong presence in neighborhoods with lots of large multi-family buildings (e.g., Chinatown, Allston). The outreach has focused on residents of large buildings, in particular tenants.

Rickie Harvey, BCEC: “How many people engaged in these residents’ meetings?”

- Answered in breakout; approximately 90 attendees at the first meeting, approximately 70 at the second meeting, process includes stipend compensation for residents attending the meeting.

Questions about policy (to be covered in greater detail in upcoming open house):

Kristen Simmons, Roslindale (ICF): “What other policies have you looked at? NYC has put a policy in place, for example.”

- Answered live; City staff have been monitoring, learning from and working with cities across the US, including NYC, St. Louis and Washington, DC, which have already passed ordinances, as well as cities participating in the American Cities Climate Challenge.

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Patrick Pierce (Emerson College): “Hi! I was wondering what the exact consequences would be if a building does not meet their energy targets?”

Linda Hirsch, BCAN: “How do these efforts intersect with the pilot studies that the Green Ribbon Commission is planning?”

- The building performance standard policy is one component of Strategy #5 of the Climate Action Plan, another step within the Strategy is pilots and demonstrations of deep energy retrofits to support learning and sharing of best practices through the process.

Breakout discussions:

How to decarbonize a building

Discussion leaders: Ben Silverman (City of Boston), Philip Eash-Gates (Synapse)

Notetaker: Kathleen Hart (City of Boston)

Breakout participants: Kristin Simmons (ICF), Charlie Marino (NYC), Tom Chase (Dorchester resident, New Ecology)

Question: What are your initial thoughts on the process so far:

Responses from attendees:

- Has concerns, but it’s absolutely necessary to do. Financing and technical assistance is extremely important, getting them done right. It’s not going to be easy.
- Lessons learned from NYC – a lack of forethought between tenants and building owners. Split incentive problem.
- One component of getting to zero is off-site renewable energy credits. What’s the building specific target? How does that differ from affordable housing vs. another building.
 - Benjamin Silverman response: Different buildings have different pathways. How do buildings start planning now and how to incorporate these features.
 - Phillip Eash-Gates response: Difficult to forecast prices of off-site credits. Energy efficiency can help lower energy prices. What we’ve seen in MA, is that the cost has been on a pretty steep decline which could mean that the longer payback period may not be cost effective as off-sight credit (solar or wind). There are some tradeoffs that we’re trying to clear up with our technical analysis. Energy efficiency first, then electrification, then maybe off-site renewables after we’ve done those things that are most cost effective.

Question: Other successful interventions that have assisted in decarbonization?

Responses from attendees:

- We haven’t seen anything major in our personal experience. The max percentage reduction we had was 10% reduction which costs 12 million dollars. That didn’t take into account grid benefits. Incremental measures in the marketplace.

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- Passive house used, then solar and other carbon neutral fossils. Belgium. Net zero possible, miscellaneous electric loads. Passive house is a good way to start.
- Net zero tenants brought up – Green engagement for renters
 - Commercial side - transparency for energy consumption, and the conversation between the landlord and the tenants, but far too few buildings have that foundation established.
 - Works for multi-family housing too
- In Europe for retrofitting, using panelization like Circle Square in the South End- they encased the entire building with insulation on the exterior. They're a model for what can be done. Only displaced tenants for 3 days for each apartment, so they can do better.

Designing for equity

Discussion leaders: Kat Eshel (City of Boston), Andrea Atkinson (One Square World)

Notetaker: Taylor Connolly (City of Boston)

Breakout participants: Amanda Clevinger (Brightpower), Judy (Boston Climate Action Network), Helena (grad student at MIT), Meghan Suslovic (City of Cambridge), Michele Brooks (Sierra Club), Patricia Alvarez (Southwest Boston CDC, Hyde Park resident), Judith (Harvard researcher), Sarah (BCAN)

Question: How should any potential revenue from the standard be used?

Responses from attendees:

- No thoughts on payment into the fund. Affordable Housing Performance standard in NYC convoluted; ordinance before council on what constitutes affordable housing (if there are fewer than 35% of units that are affordable, the building is covered under performance standard).
- Overwhelmed with information from the technical analysis update. Lives close to Roxbury Community College; want them involved because of training.
- How money can be put back into weatherization for small buildings that don't meet the threshold
- Potential use of revenue: comprehensive program to cover weatherization, and health and safety repairs to address air quality and interior conditions
- How will BHA pay to retrofit? How will CDCs finance retrofits needed? Would like to see more training for green retrofitting work
- Workforce development interest
- Can it fund solar on residential buildings? Large complexes or solar arrays? Would like to see funds for low income homeowners for solar.
 - Homeowners - lots of moderate and low income in community
 - Mass Save not doing the trick fully

Question: What would you change about Mass Save?

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Responses from attendees:

- Not affordable, even with subsidy
- Does not address the issue of power outage - concern about the intersection with storms, climate change, and increased power outages. What role would energy storage play in any guidance?
- Insulation difficulties - if the attic is full, then they might have to pay someone to move items, creating an additional barrier to insulating
- Need carrot and the stick for low-income owners
- Improved incentives needed
- Could there be a building owners toolbox?

Financing retrofits

Discussion leaders: Brenda Pike (City of Boston/NRDC)

Notetaker: Laura Tajima (Building Electrification Initiative)

Breakout participants: Ania Camargo (Mothers Out Front), Bethany Patten (Bay Village Association, MIT Sloan School of Business), Bunker Henderson (Boston Climate Action Network), Frank Stone (JP resident), James Michel (Boston Clean Energy Coalition), Mike Prokosch (Boston Climate Action Network), Neil Paradise (background as an attorney), Todd Isherwood (former energy project manager for the City of Boston)

Initial thoughts from attendees:

- Have technology and know-how but we need a way to pay for these upgrades
- Spend a lot of time thinking of financing mechanisms and want to learn/work together
- Find financing an interesting topic and important to decarbonization
- Financing can make or break decisions being made, often part of the conversation for decision-makers
- Huge priority to see where is the funding going to come from
- Interested to see what is happening and see if they are following NYC's example

Overview on current financing landscape from Brenda

- The City is looking into creating a building retrofit resource hub to give one-on-one technical assistance and direct building owners to existing resources, such as MassSave, SMART, Alternative Energy Credits, Tax-Exempt Lease, Community Development Financial Institutions, Tax Credits.
- We know that existing resources are not meeting all of the need, especially for under resourced buildings. Retrofits can pay for themselves over their lifetime, so many of the new resources we're exploring are long-term financing.
 - PACE: Loan stays with building not the owner and repaid through property tax bill



- Climate Bank: Could offer longer-term financing and aggregate smaller projects
- Use of Alternative Compliance Payments: For those that do not quite meet their targets, \$/ton for the amount they are off and use these funds to help decarbonize other buildings

Open discussion

Comments and questions from attendees unless otherwise noted:

- NY has implemented Alternative Compliance Payments. Is this Cap and Trade? Is this what the city is exploring right now? \$277/ton? In NYC, the fear is that carbon penalty will be passed to tenants.
 - Brenda Pike response: An Alternative Compliance Payment is not cap and trade. It could be one of several compliance options (efficiency, electrification, clean energy purchases...). Revenue could potentially fund retrofits for low-income housing or other initiatives. We are not currently considering an offset market with people trading.
- Is PACE a state program?
 - Brenda Pike response: Yes, PACE is run through Mass Development, and Boston is considering opting in to the program.
- How can the City push the State/MassSave to get aligned with what you want to do? Due to the cost-effectiveness requirements, Mass Save cannot incentivize due to low prices of gas.
- Data is showing that in 5 years, gas is more expensive than electricity so there is good reason to begin transitioning now especially low-income buildings.
- What is the penalty for not meeting their goals? Have any penalties been levied under BERDO?
 - Brenda Pike response: The City is still evaluating enforcement methods for the performance standard. The focus for the first BERDO compliance period has been on working with buildings to help them comply.
- Can you describe the Climate Bank concept?
 - Brenda Pike response: Many states are doing this - CT Green Bank, NY Green Bank, etc. It crowds in private capital to multiply the effect of philanthropic or public funds. Would make long-term or smaller projects more attractive for private lenders. It would potentially be a non-profit that facilitates investments.
- Is that similar to what the City is doing for public buildings?
 - Brenda Pike response: The City is using energy savings performance contracts. Any building of sufficient size could be doing this right now because savings will cover costs over the long term. Need to make sure there are sufficient long term loans and that they are available for smaller projects.

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- There will need to be a lot of hand holding for nonprofits and building managers. Need someone to advise on how to take advantage of opportunities within a building, who to work with, etc. A contractor list would be helpful.