



BREAKOUT GROUP NOTES

TO: Boston Climate Action Plan Update Working Group Members
DATE: May 15th, 2019, 1:00 -3:00 p.m.
LOCATION: District Hall, Seaport

These notes reflect a discussion among working group members who attended the 5/15/19 meeting. If you have questions or would like broader context of the discussion, please reach out to Kat Eshel at katherine.eshel@boston.gov.

Zero net carbon standards and phasing

Rotation Group #1

- Make sure the definition of possible ZNC offsite offsets does not preclude possible options (example of Boston Medical Center came up)
- During discussion the definition of "ZNC Ready" was changed to "ZNC all electric, with most efficient envelope, and solar ready" (this was applied to discussion during Rotation #2)
- Added LEED Zero as one of the options (this was applied to discussion during Rotation #2)
- Make sure that on-site renewables and passive design are emphasized and done first, before allowing for other options like offsets
- Does there need to be a conversation around roof footprint for two buildings with same FAR but different footprints when deciding on a solar policy?
- Even if a large narrow building has a small roof footprint compared to a wider building, the amount of solar in both cases might still be greater than the solar on 1 small residential unit → so overall it is a net benefit for solar deployment
- Would we get a different answer on the exercise if we ranked the options differently? By ranking ZNC as the first option that have the idea that it should be the target for all options.
- ZNC is currently feasible for some development sizes. E+ buildings show that 1-3 family homes are definitely feasible today; the barrier to overcome is developer and team awareness and education.
- When drafting policies we should think of how many stakeholders would be at play under the different cases (i.e., 1 family home vs. large residential), and use that to decide when a particular type of building would be ready to transition as well as what incentives might be needed.
- Breaking point identified for when a ZNC building is technically feasible today: 4-6 residential.



Rotation Group #2

- Think of what is possible from a technology and financial point of view (electrical hot water → very easy to do today; electric heat → more difficult to require today)
- Different ways of analyzing each category depending on what you want to emphasize; single family home as an example of how different ways of reasoning are possible:
 - a. A single family home policy should be "green" in the next 2 yrs because it's already being done;
 - b. A single family home policy should be "blue" in the next 2 yrs because although it's already being done, we are still not sure that it is attainable everywhere;
 - c. A single family home policy should be "red" in the next 2 yrs because although most electric is possible today, people are still using some natural gas.
- Implications of grid capacity: grid already at capacity; we need to change the generation mix; assume some of this will already be solved through municipal aggregation and greening of grid
- Need more education: everyone involved in every aspect of building design/construction/management, etc.
- For some building sizes, designers and architects are ready to design ZNC → if mandated, they will do it.
- Large commercial institution: idea that "green" nor "blue" are feasible
- Institutions are in a different category/analysis because they have a longer timeframe for decision making
- Would you analyze an institution as a campus as a whole or at the building level?
- Commercial should be ranked before small family/residential because as you think at a "district level", some solutions beyond "solar ready" become feasible for commercial, like heat pumps.
- Example of a case where team designed a passive house and znc "convertible" with all electric; but since all electric was not feasible yet, they switched back to gas.
- Question to possible role of the city: how to make electricity competitive for electric hot water?
- "Time of use" is needed
- The workforce (design, architecture, construction, etc) is ready now for single family home, small multi-family; but for larger buildings it could take even up to 10 years to get the workforce ready.
- Reminder that what we are analyzing and talking about will LIKELY not be the lowest cost option → no one will voluntarily choose these options → this should be kept in mind when thinking of "what is feasible"

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- Idea that we talk a lot about "waiting for data from current projects", but that data might not be ready for 10 years after projects get built. Do we want to wait 10 years because we want to wait for data?
- Example of large passive house buildings in NYC
- Major issue for solar in urban environments → shading
- We didn't wait for data from LEED buildings to come out to move forward with Article 37
- Example from Pennsylvania: points toward tax credits when you do passive
- Monitoring and evaluation should be part of the policies and regulations
- Barrier today to passive housing: need to demystify

Building performance standards

- Resiliency should be included in building standards
- Electrification should be included in building standards
- More building developer feedback is needed
- In favor of penalties in NYC model, especially fines for providing fraudulent data
- The time of sale approach in Burlington means less displacement during retrofit
- Using the HERS rating, the way the Boulder ordinance does, would play nicely with state policy
- Can we do tax offset so costs aren't passed on to renters? Gradually decline over a series of years, like PACE.
- Burlington's model isn't enough to get to our goals
- If offsets are less expensive than the fine, that's a problem
- Any time-of-rental standards should also apply to small commercial
- Time-of-rent standards should be separated from other sorts of inspections, to avoid penalizing socially vulnerable populations (e.g., illegal immigrants)
- Point of sale is too late. Also, no upgrades are made if it's not sold for a long period of time.
- The baseline matters. Setting a percent reduction isn't fair for buildings that have already done a lot of work. How do we calculate an absolute emissions target for each building type? How did New York City set their targets?
- Does NY factor in grid emissions improvements? (Note: NYC set *absolute emissions targets*. *Grid emissions reductions could contribute to meeting the target.*)
- Need a combination of all these models to cover the different markets: large commercial, rentals, homeowners, etc.

Non-parking curb uses

- Curbs can be used for stormwater management or planting bioswales - integrate climate-responsive design like plants grown by curbside to help with stormwater management, similar to towns like Watertown
- Seaport would be a good neighborhood to implement bioswales that collect stormwater, could potentially do a pilot and flood+test a street for resilience

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- Monetization of public space: Parking generates revenue for the City. Need to maintain revenue as we take parking away from the curbside. What are the revenue opportunities we need in order to get rid of meters, etc?
- Develop an officer of revenue management
- Solar panels could provide a different revenue opportunity, interaction with EVs and electric buses (could charge as they move)
- Look at priority rapid bus routes with longest routes and most transit-dependent communities and put lanes there
- If we acknowledge that there's a wider range of opportunity for developers, land owners, etc to do something with that space besides landscaping and public realm, developers and business owners may be more willing to have the conversation.
- Why wouldn't we use parking spaces as EV charging spot if overall goal is reduction of emissions?
- MicroHUBs are an opportunity to replace parking spaces with other uses - there's a huge potential to get people to think differently in the neighborhoods.
- Utilization data from DriveBoston (City carshare) could identify parking that is underutilized (e.g., if a certain has a utilization rate under 20%, the space can be relocated - what becomes of the space that is vacated?)