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MEMORANDUM

DATE: February 11, 2022

TO: Councilor Deborah Crossley, Chair, Zoning & Planning Committee
Councilor Rebecca Walker Grossman, Chair, Finance Committee
Members of the Zoning & Planning Committee and Finance Committee

FROM: Barney Heath, Director, Department of Planning and Development
Jennifer Caira, Deputy Director Department of Planning and Development
Zachery LeMel, Chief of Long Range Planning

RE: **#48-22 Requesting an update on the status of implementing the Climate Action Plan**
Chair's Note: Sustainability Directors will join the committee to present the array of action items pertaining to reducing emissions and fostering clean energy sources in Newton buildings. With Sustainability and Planning staff we will discuss options for advancing the work both within ZAP committee, and by using working group/s, other committees, commissions, etc. as well as outside resources to inform how zoning can be used to set the desired policy in each case.

MEETING: February 14, 2022

CC: City Council
Planning Board
Jonathan Yeo, Chief Operating Officer
Ann Berwick, Co-Director of Sustainability
Bill Ferguson, Co-Director of Sustainability
Liora Silkes, Energy Coach
Jennifer Steel, Chief Environmental Planner
Nicole Freedman, Director of Transportation Planning

Introduction

At the 2022 City of Newton Inauguration both Mayor Fuller and Council President Albright spoke to the dire need for taking actions that address climate change. Particularly, multiple items dealing with the reduction of building energy use and greenhouse gas emissions (GHG) all fall to the ZAP Committee. While climate considerations have been incorporated as part of recent zoning, there is an acknowledgement that more can and should be done to quickly and efficiently tackle these items and achieve the goals set out in [Newton's Climate Action Plan](#) (CAP). At the upcoming ZAP meeting City staff will present an overview of these CAP items, which include:

- BERDO - Building Energy Reduction and Disclosure Ordinance ("Boston/Cambridge Model")
- Sustainable Residential Incentives ("Lexington Model")
- Updates to Sustainable Development Requirements (Ch. 30 Sec. 5.13)

- Solar requirements for new commercial buildings (“Watertown Model”)
- Reduced size threshold for projects to comply (Special Permit criterion 5) and address electrification requirements for Special Permit projects
- Embodied carbon tracking and monitoring
- Increased electric vehicle (EV) requirements
- Electrification home rule petition/the State electrification bill
 - The home rule petition is currently at Public Facilities and is not intended to come to ZAP unless the petition is approved by the State when additional ordinance language will be needed. Similarly, no action will be required of ZAP on the State electrification bill until/if it is approved.
 - Note: no City Council action is required now, but Newton State Representative Kay Khan has filed a bill, HD 4755, requiring that all new construction and substantial renovations statewide be electric.

Building Energy Items Before ZAP

Newton’s Co-Directors of Climate and Sustainability, Ann Berwick and Bill Ferguson, recently outlined the building energy use and GHG emissions items above in a memo to the Mayor (attachment A). This memo provides a brief introduction to each item: what it is, why it is being undertaken, and the overlap between the different proposals. The Co-Directors’ memo begins to outline the need for a different process to work through these items and what that might look. The ideas are further expanded upon and refined below.

Workplan for Building Energy CAP Items

Addressing all the above CAP items, through the traditional approach, in light of the current zoning efforts on ZAP’s general calendar, will not be efficient in terms of timing which is of the essence. Given this, the City’s Sustainability Directors and the Planning Department recommend that the CAP items be analyzed through two working groups (BERDO and Sustainable Residential Incentives) made up expressly to tackle those items. There is expected to be overlap of working group members, but each item has a different set of experts and stakeholders as well. The working groups would not only technically assess and create proposals for ZAP to consider, but also engage the appropriate stakeholders to build a coalition of support in advance of the item returning to ZAP and a City Council vote. Lastly, multiple working groups mean that both items can progress simultaneously.

City staff believe the third category of items, updates to Sustainable Development Requirements, can be handled internally by staff with the assistance of expert advisors as needed. Some of these items, like embodied carbon, are currently moving forward in this manner and portions should be ready for ZAP soon.

Generally, the size and makeup of each working group should be proportional to the impact and priority of the item. BERDO, for example, would only apply to commercial and large residential buildings and therefore would require representation from commercial property owners and the broader economic development community. The Sustainable Residential Incentives, in its current form in Lexington, would only apply to new construction and substantial renovations of single- and two-family homes. For both these items, appropriate thresholds for Newton will need to be determined.

It is the expectation that City Councilors would participate in these working groups. If broader policy issues arise the City Councilors on the working group can provide guidance, and if needed recommend that a broader conversation be held at ZAP. City Councilors would also play a critical role in broader outreach to impacted stakeholders. The engagement with stakeholders and the transparency of the

process are critical to success. Luckily other communities like Boston and Cambridge for BERDO have provided us with successful models. In addition, City staff believe outside support may be needed in particular for outreach and communications. Informing and soliciting feedback from the broader community is a priority for City staff.

To begin thinking about these CAP items and the various needs each one has, City staff have drafted a calendar of building energy CAP items (Attachment B). It attempts to put these items in order of priority/impact, as well as feasibility given staffing constraints. The time devoted to each item would follow a similar process:

- Kick-off presentation to ZAP
- Working group meetings – technical and outreach (# dependent on item)
- Check-ins at ZAP (if policy decisions arise or if item has a longer timeline)
- Zoning Ordinance proposals at ZAP and Public Hearing

At the upcoming ZAP meeting, City staff recommend the conversation focus on the merits of this model, appropriate group make-up, and the general timelines.

A Note on the Recent DOER Net Zero Stretch Code Proposal

The Department of Energy Resources (DOER) released a straw proposal on February 8 related to updates to the “stretch energy code” and the more ambitious “specialized code.” Newton is already a stretch code community and, as such, automatically adopts the new stretch code. Adoption of the specialized code would require City Council action. It is important to note that neither the stretch code nor the specialized code gives the City the authority to require that all new construction be electrified. The details of these codes are not yet available, but it appears that they make substantial progress on building envelope requirements.

Looking Ahead / Next Steps

To proceed, City staff are looking to ZAP for confirmation that building energy CAP items described above are considered the correct implementation tools to achieve many of the policy goals in the CAP approved upon by the City Council in 2019.

Attachments

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| Attachment A | Newton Directors of Sustainability Letter to the Mayor |
| Attachment B | Building Energy CAP Items Draft Calendar |

To: Mayor Fuller, Jonathan Yeo
From: Bill Ferguson, Ann Berwick
CC: Jennifer Steel, Liora Silkes, Nicole Freedman, Sam Nighman, Devra Bailin, Barney Heath, Jennifer Caira, Zach LeMel
Date: January 26, 2022
Re: Reducing building energy use and GHG emissions

The Climate and Sustainability Team has been working to update the Climate Action Plan to reflect new and ongoing efforts, update our tracking tool, and summarize our current thinking.

However, there is a set of issues relative to reducing building energy use and GHG emissions that we'd like to discuss separately from that broader effort. These are: (1) the electrification Home Rule petition, (2) the State electrification bill, (3) BERDO, (4) the Green Leadership Collaborative, (5) an alternative approach to electrification that Lexington is considering, (6) the Watertown solar requirement for large new commercial buildings, and (7) reducing the Chapter 30 Sustainable Design Requirement from 20,000 to 10,000 sf.

Here is a brief outline of those issues, together with our recommendations and issues for further discussion.

BERDO (Building Energy Reduction and Disclosure Ordinance)

- Adopt BERDO-type ordinance, possibly with Newton-specific adaptations (but do not reinvent this wheel, i.e., adopt most of the Boston BERDO approach).

BERDO in Boston explicitly addresses *large existing* commercial buildings and residential buildings with over 15 separate dwelling units and, effectively, *new large* buildings because they will have to be designed to anticipate the need to comply with progressively stricter BERDO standards as they phase in. This is the basis for our recommendation below to limit the electrification Home Rule Petition to residential construction and small commercial buildings. We also note that the fact that BERDO reaches existing buildings is very advantageous.

For at least the purposes of this memo, we are considering residential buildings with over 15 separate dwelling units to be commercial. It is also possible that Newton will limit its own version of BERDO to actual commercial construction, which is another reason to think about BERDO as addressing just commercial construction for our current purposes.

Boston started with BERDO 1.0 (GHG emissions reporting requirements only), moving to BERDO 2.0 in 2021 (GHG emissions reduction requirements). We think that this basic trajectory makes sense; BERDO 1.0 is useful mainly because it is a predicate to BERDO 2.0 by establishing the energy use reporting requirement that is needed to enforce a BERDO 2.0 ordinance. By starting with BERDO 1.0, Newton can also learn from Boston's experience with BERDO 2.0 before we move forward.

Although Boston has already enacted BERDO 2.0 by ordinance, there is some concern that it will take months or longer for Boston to adopt regulations. It's not clear whether this concern is warranted—Boston published phase one of its regulations just before Christmas, and BERDO is presumably a priority for Mayor Wu. Newton will have to decide how far to go with BERDO 2.0 before Boston's regulations have been finalized and any legal challenges are addressed.

Our BERDO recommendation raises two issues:

- (1) BERDO omits small commercial buildings. Our recommendation is to address small commercial buildings by including them with residential buildings in the Home Rule Petition.
- (2) The more complicated question is whether, ideally, we would want the electrification Home Rule Petition to include large commercial buildings, and want to adopt BERDO as well. We think there are good arguments on both sides of that question, which we won't go into here.

Electrification Home Rule Petition

- Continue moving the electrification Home Rule Petition/Ordinance forward, but consider narrowing it to new residential and small commercial buildings and substantial renovations (rather than the current approach, which addresses new residential *and all new commercial* buildings).

State Electrification Bill

- Continue work on the State bill requiring electrification of all new buildings and substantial renovations.

The bill was filed on January 24: HD4755. Unlike community-by-community Home Rule petitions and BERDO, this statute would automatically address all new buildings and substantial renovations in the State, residential and commercial. No Home Rule rigamarole or adoption of local ordinances required. This would be a major step forward.

Green Leadership Collaborative

- Use the proposed Green Leadership Collaborative initiative as a mechanism to help implement BERDO, rather than as it was initially envisioned in the Climate Action Plan. Alternatively, we could discuss whether there is a way for the City to provide the umbrella for this initiative, without a lot of time on the part of City staff.

The Green Leadership Collaborative, proposed in the Climate Action Plan, would involve the City in organizing large businesses to work together on their own climate action plans, which would involve significant City staff resources.

An Alternative Approach to Electrification for Residential Buildings

- For new residential buildings, consider the approach that Lexington is discussing (but has made no decision on), i.e., limit building size by zoning but allow increases in size for buildings that meet a specific building performance standard and electrify. (We're calling it the "Lexington approach," even though it is only under consideration in Lexington.) For example, if zoning currently allows a 2500 sf home in a particular location, only an 1800 sf house would be allowed unless the home were built to a specified performance standard (Passive House? HERS 45?), added solar, and electrified. Lexington believes this approach eliminates the preemption problem that the Home Rule Petition is meant to address.

If Newton adopts this approach, we recommend that it be limited to residential construction. Applying it to commercial construction might simply be too complicated. We are not certain whether it can include renovations, but are exploring that question.

Just as the electrification Home Rule Petition as originally conceived and BERDO are to some extent redundant (i.e., for large commercial construction), the Lexington approach could make the electrification Home Rule Petition at least partly superfluous (for residential construction). The question arises as to whether the Lexington approach should replace the Home Rule Petition or, alternatively, proceed contemporaneously.

We recommend proceeding both with the Lexington approach and the Home Rule Petition contemporaneously. The Home Rule Petition does have the advantage that it has a clear path forward for substantial renovations.

Solar for New Commercial Buildings

- Adopt a version of the Watertown ordinance requiring solar on new commercial buildings (with possible Newton adaptations).

Chapter 30 Sustainable Development Requirements (Special Permits)

- Reduce the Chapter 30 Sustainable Development Requirements from 20,000 sf to 10,000 sf.

Note that the Sustainable Design Requirements still require the reserved solar and embodied carbon requirements to be filled in. There is currently a working group addressing embodied carbon.

Process

- Coordinate closely with the Newton Economic Development Commission, the Chamber, and other stakeholders.

All of these issues affect buildings, their owners, and their residents. Stakeholders need to be part of the process, both because they are deeply affected and because they will have important insights.

In summary, here are our recommendations, including issues for further discussion:

- Adopt BERDO-type ordinance, starting with BERDO 1.0, possibly with Newton-specific adaptations.
- Continue moving the electrification Home Rule Petition/Ordinance forward, but consider limiting it to new residential and new small commercial buildings and substantial renovations.

To be resolved: (1) Should we narrow the Home Rule Petition/Ordinance to new residential and small commercial buildings and substantial renovations in light of BERDO (rather than the current Home Rule Petition/Ordinance approach, which addresses new residential *and all new commercial* buildings), or should we move forward with *both* BERDO and large commercial buildings in the Home Rule Petition/Ordinance? (2) If we narrow the electrification Home Rule Petition to exclude large commercial buildings, should we include small commercial buildings with residential in the Home Rule Petition?

- Continue work on the State bill requiring electrification of all new buildings and substantial renovations.
- Redefine the role of the proposed Green Leadership Collaborative initiative to focus on BERDO implementation. Alternatively, we could discuss whether there is a way for the City to provide the umbrella for this initiative, without requiring a lot of time on the part of City staff.
- For new buildings, move forward with the Home Rule Petition/Ordinance and consider the Lexington approach.

To be resolved: (1) If we move forward with the Lexington approach, should we limit it to residential construction? (2) If we require compliance with a performance standard, what should that performance standard be? (3) In light of the fact that this is a zoning approach, is it possible to include substantial renovations?

- Adopt a version of the Watertown ordinance requiring solar on new commercial buildings, possibly with Newton-specific adaptations.
- Reduce the Chapter 30 Sustainable Development Requirements from 20,000 sf to 10,000 sf.

To be resolved: The content of the reserved solar and embodied carbon sections.

- Do not shortchange the process! Be sure to include affected stakeholders in addressing these issues.

