

# Newton Citizens Commission on Energy

City of Newton

<http://www.newtonma.gov/building/projects/energycomm/default.asp>

Halina Brown (Chair), Michael Gevelber, Stephen Grody, Philip Hanser, Asa Hopkins,  
Jonathan Kantar, Jon Klein, James Purdy (Vice Chair), Puja Vohra,  
Ann Berwick, William Ferguson (*ex-officio*)  
Advisory Members: Cory Alperstein, Fred Brustman, Edward Craddock, Ira Krepchin



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## Minutes of the Meeting of May 26, 2021

The meeting was held on Zoom.

Attending: Halina Brown, Michael Gevelber, Stephen Grody, Philip Hanser, Asa Hopkins, Jon Kantar, Jim Purdy; Fred Brustman, Paul Eldrenkamp, Scott Rodman, Dan Ruben, Liora Silkes, Demie Stathoplos, Philip Vergragt

### 1. Energy Coach

The City's Energy Coach Liora Silkes was asked to report on her first three months on the job. She gave a brief overview. She is focusing on increasing outreach to the public.

Halina noted that the Commission needs to progress with BERDO at our next meeting. Liora has talked with Jennifer Steel about CAP progress, of which BERDO could be a part.

### 2. Presentation by Dan Rubin on Green Newton's Building Standards Committee

Dan Rubin reported on the Green Newton Building Standards Committee ("BSC"). It has 13 members with professional experience in the subject matter. At the outset, Paul Eldringkamp proposed four principles, and the BSC adopted them: passive house, low embodied carbon, electrification of building systems, and Smart Growth planning to facilitate non-automobile transportation.

The BSC introduced the four principles to the City and to two major developers, Northland (Needham Street project) and Mark Development (Riverside project).

The BSC also worked with the City to get the Special Permit requirements updated, resulting in the City incorporating Passive House (as well as LEED) for project larger than 20,000 sf; placeholder sections were also designated in the Zoning Code to address embodied carbon and electrification.

The two developers engaged in an ongoing dialog with the BSC, and both developers hired expert consultants in the relevant areas to help address the BSC demands and principles; and they proceeded with meeting us more than halfway.

The BSC has also engaged developers on other projects, including Riverdale, 1149 Beacon, Dunstan East, etc.

The chief difficulties have been opposition to the project by members of the public, primarily for reasons that aren't primarily about the four principles; also restaurants that are prospective tenants in the projects don't want to give up gas cooking, so gas connections will be provided for this purpose.

Most City Councilors support the principles, but the ZBA mindset is still "20th century", so more work is needed, especially on 40B housing developments.

The BSC presents itself to developers as allies, if they incorporate our concerns. The BSC has worked to support approval of their permits. The question is how far to push.

Why have we been successful? Partly because climate is motivating Newtonians to accept the need for change. Also Green Newton has a great reputation and a fair amount of influence. We have good connections with the administration and City Council.

Professionals from outside Newton contact us.

Momentum is on our side.

Halina asked, if given the choice on progressing in the same manner vs getting a policy framework in place with the City that can continue the work, which would you pick? Dan said there are advantages to both, but it would be much easier if there were state and local regulations and standards.

Jon Kantar added, this provided opportunities to educate people as to our concerns and why they should support them with action.

Halina asked, so at some point will the policy makers codify what we've been doing?

Paul said that this has worked in large part because the numbers make sense; it is good business.

Michael congratulated the BSC. So far, accomplishments have been mostly through special permit, but to what extent have these principles filtered down to the City staff in a sort of codified list. I.e., to what extent do city staff think this way? Dan replied that each issue is a negotiation.

He also asked, have you considered setting up a web site to publicize the BSC's work? Michael would like to get one of his employees working on it.

Dan replied, it's a big project to get up a website, but it would definitely be a worthwhile project.

Jon said that nimby-ism is a real challenge for the BSC as well as the developer. So a lot of time goes into the meetings and hearings. As to City staff internalizing our principles, they have to a great extent, and we are informed of new projects very early in the process.

Stephen said regarding Halina's and Michael's questions, money is a key factor as Paul suggested. What if the BSC were a consulting firm, and evolved into a down market of smaller project size, or consulted in other places outside Newton? Paul replied, he would look at size

of project – a large scale enables the developers to be market leaders not followers; there is also more impact, both directly on the project, and on the overall vision of what a good project is. Jon agreed with Paul; our leverage point is that we're a political force in Newton. It's harder to take that elsewhere.

Dan summarized: we've got allies in the City Council and the Mayor, and we chose good developments to support.

Michael said that what gives leverage is the ability to help these projects over the finish line. Newton set a high bar on renewable aggregation, so we can reach out to likeminded communities. Halina said without opposition to the developer's project we wouldn't have leverage.

Phil asked if there were any situations where companies are replicating their Newton project elsewhere. Answer: not at this point; the developers will have their hands full with these large projects for the time being.

### **3. Discussion of how to reach out to and train/require the contractors working on residential house improvements to meet Climate Action goals. Paul Eldringkamp to discuss his experience in energy efficient home construction.**

Phil said that his impression is that new home construction and renovation seems to be done by very small companies who build at lowest common denominator. How can we reach them? Paul replied that NESEA put together a study tour in 2011-2014 to Austria, Sweden, and Denmark. At the time, Passive House was growing fast in those countries. Paul summarized that there are carrots, sticks, and "tambourines" (i.e., educational opportunities) that were learned from the study. In Massachusetts, we have had some of those, e.g. a deep energy retrofit program through DOER and MassSave, but at very high program cost in relation to the programs' benefits.

Paul explained that by "tambourines" he means conferences, associations, and organizations like MA CEC, Synops, etc. For the most part, smaller scale contractors are not coming forward to adopt these practices. So, we need the sticks - especially stretch code, zero net energy code – and enforcement is needed to make these work. Paul said that Newton has a very good Building Department (i.e., Inspectional Services Department, which administers the building code and verifies compliance. He suggested that we could support their work by getting them to adopt blower door testing. In summary, the single most effective way to make progress is via the codes (which he didn't always believe.)

Halina asked, so how do we introduce blower door tests to all sorts of renovations? e.g., in the range of \$10-20K? Jon said ISD not especially cooperative with sustainability efforts by others. He is doubtful that we could get blower door tests adopted as a requirement except in new construction HERS ratings.

Halina replied, but stretch codes don't apply to smaller scale renovations. Paul said new stretch code provisions are being developed now and may become effective later this year, including some of the measures to reduce embodied carbon.

Michael proposed that contractors need to be actively engaged. E.g., award a "green seal" to builders who do things like leak identification and sealing as part of their routine business

practice. In a \$100-200K project, this is not unduly expensive. It results in a much better project, and a more comfortable house.

Paul said, in his fantasy, Newton makes these blower door tests available for contractors to use – opening and closing walls is a relatively small expense in the context of a job like this, e.g., air sealing at a knee wall. If Newton offered a free blower door/infrared inspection to people pulling permits, more would use it to improve the product. It is also a great opportunity to teach contractors how to make a tight building; for example, using theatrical fog to illustrate the principles; once the crew gets it, they will incorporate it into their quality construction.

Jon said that the contractors he observes in Newton are in a rush and don't have the time to try something unfamiliar. But perhaps with enough carrots, some would.

Phil said his general impression is that contractors rush to minimize the construction period, and as a result, they pre-order the HVAC system and oversize it, which leads to high operating costs.

Stephen compared our problem to Dr Atul Gawande's surgical checklist, with such supposedly "stupid" items as "count the sponges after surgery;" but this simple innovation has actually made a difference in surgical outcomes. So maybe there is a similar checklist for people getting into construction/renovation. Jon said that the stretch code includes multiple checklists, maybe 6-10 things, and inspectors are supposed to check this during construction.

Jon said that he hasn't had a problem with ISD in his projects; he and Paul have reputations for doing things right; but some contractors probably get away with things. The high compliance rate with HERS ratings on stretch code projects is evidence that builders and manufacturers have adapted.

Jon suggested that the MassSave audit might be a place to do this, but this is done only occasionally.

Halina summarized:

1. There may be work coming out this summer about standards for renovations.
2. Even if 10% of owners adopt the checklist for their work, that is progress.
3. What do we have to recommend to the city? Jon suggested that Liora could offer this as a guide for people who want it.

Asa stated that it's the same logic as the four principles of the BSC, isn't it? The idea is that you can create a simple checklist for single family renovation – heat pump, blower door, double insulation, etc.

Liora said we're using 4 points for residents to use (the *Take Action* categories) and the checklist from MassCEC. A variety of innovations are happening outside the audit world. Many people are trying to get blower door tests incorporated.

Asa also cited the Decarbonization Roadmap assessments being done through MassCEC.

Halina related her experience about requesting insulation in window replacement – there should be a checklist for homeowner use in situations like this.

Paul made three suggestions: 1. Have the Mass Save audit first, but have the insulation contractor walk through with the auditor. 2. Electrification – wall mounted heat pump units may not work well where the space is split up into too many pieces, so this has to be taken into account in project design. 3. Use the best window you can afford, and this makes the heat pump economically viable.

Stephen agreed that the idea of a collaborative audit is a great thing. Paul added that it also educates remodeling contractors and the auditors.

Phil asked, how do you reverse the usual process and get the insulation contractor in at the beginning? Paul replied that his checklist does this; however, it is aimed at homeowners who are planning substantial projects.

Halina asked Liora if she would consider following up on the idea of a collaborative audit and checklist? Liora said yes, but we need to consider different approaches for different audiences.

#### **4. Greenhouse Gas Inventory**

Michael and Halina are starting to update the inventory (upon which the familiar pie chart is based) with a graduate student intern from MA CEC on June 1. He will build a new/updated inventory. Halina asked members to volunteer to stand by and look things over with the intern? There were no immediate responses, so Halina proposed later drafting a volunteer when needed.

Michael noted that the utilities still dragging their feet on providing the critical energy consumption data. But he hopes for a product at the end of July.

The meeting was adjourned at 9 pm.

Respectfully submitted by Jim Purdy