

Newton Citizens Commission on Energy

City of Newton

<https://www.newtonma.gov/government/climate-and-sustainability/citizens-commission-on-energy>



Mayor Ruthanne Fuller

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 July 28, 2021

The meeting was held on Zoom.

Attending: Halina Brown, Michael Gevelber, Stephen Grody, Philip Hanser, Jon Kantar, Jim Purdy;
Cory Alperstein, Evan Collins, Bill Ferguson, Demie Stathoplos

1. Update on BERDO for Newton

Bill Ferguson gave the update on BERDO. Bill is waiting to hear from the administrator of the Mass Energy Insight (MEI) regarding conversion of data between MEI and the EPA Portfolio Manager. This data can be used to estimate the cost to bring buildings into compliance with applicable standards. We have to enter data into EPA Portfolio Manager, which is to be used for benchmarking. It will give us a carbon footprint per square foot.

This should be indicative of private sector costs to comply with the standards. He is planning to work on this next week [first week of August]. The program administrator for MEI is Peregrine Systems, which is the City's consultant on the Newton Power Choice aggregation.

Bill is going through Boston's BERDO 2.0 ordinance in detail. We need to lay out all the functions the City of Newton has to accomplish in order to put a BERDO in place, e.g., establishment of a review board. Part of this is to estimate the cost to Newton to administer the program. Bill looked at the Synapse study done for Boston to come up with their emission standards; NCCE member Asa Hopkins worked on the study for Boston, and Bill said he has confidence in it.

The biggest issues are legal – Bill plans to approach Newton's Law Department to confirm that we have the authority needed to implement a BERDO. Bill will speak to the Mayor first and is preparing to do that; he has already mentioned it to Newton's Chief Operating Officer Jonathan Yeo.

Phil suggested that we go to the law depts in Boston and Cambridge first to get their experience on this.

Michael commented that Asa had explained to him that Boston's BERDO has been evolving over a number of years. Their first step was to establish the inventory of emissions. They then moved to

BERDO 2.0, which sets the emission objectives and brings in the topic of costs to comply. But Newton shouldn't simply copy Boston's emission standards.

Michael also noted that Boston's BERDO addresses what it costs to meet the standards, and it sets an alternative compliance price \$234 per metric ton of CO2 equivalent. This translates into in effect doubling the price of natural gas. It is the equivalent net present value that the market would see.

Halina noted that the first ton of emission reduction costs more than the last. The \$234 is the net present value of what it will take to shift the market. Michael's calculations are about half that.

Phil commented that \$234 per ton is a very large number relative to the social cost of carbon. So he worries about the economics. Bill said that the City of Newton would probably buy RECs to offset emissions; the current price for RECs is \$42 per MWhr.

Bill said he wants to work through the strategy with Michael regarding cost of RECs vs. alternate compliance payments or other options. The City's cost was estimated to be 4 cents per KWH to address the GHG emissions of municipal buildings.

Stephen commented that what we're talking about is establishing a regulation that applies to our own community; allowing property owners to escape a financial penalty, by paying an Alternate Compliance Price or buying RECS, forces wealth out of the City instead of using it for the purpose and reason for regulating in the first. Money and such payments should be kept in the community and used to improve the buildings here and not exported for use by others with more geographically distant concerns. The problem the regulation address is local, not regional or systemic.

Bill asked Evan, who has been working on the inventory with Michael, if he can provide square footages for the City broken out into three categories - municipal, residential, and non-residential. Evan said he can.

2. Update on the GHG emissions inventory.

Evan presented results to date. The database can be queried by building size/number of apartments or the number of properties in an owner's portfolio. Michael said that a key question is what percentage of total square footage in Newton is accounted for by the larger categories that Evan is using. Evan can provide the answer.

Phil suggested also breaking it out between private and public housing. Boston's BERDO used this approach to focus on the larger properties.

Evan shared a deck of slides on the work.

1. Natural gas usage from various sources. (He needed to correct data to remove the portion of the Chestnut Hill zip code 02467 that lies outside Newton.)

Jon Kantar observed that the NGrid data tracks the data from the 2013 inventory, except for offset due to the 02467 zip code adjustment.

Phil said he wonders about the variability from year to year. Evan replied that much of it is due to weather. Michael said there is also some is also fuel switching from oil to gas over these years.

Phil added that we need to incorporate data on losses from gas leaks which accounted for approximately 8 percent of the Newton's GHG footprint in the 2013 inventory.

2. Electricity usage data is from Eversource, corrected for zip code 02467. Their data is about 20% lower than the MassSave data.

H is waiting to hear from the utility if the data is consumer side or producer side . Phil commented that 8-10% of the variation might be explained by that.

Michael noted that there may be other sources of possible error in MassSave vs Eversource data.

Halina said we should go with data we trust and carry it forward for trend analysis.

3. Aggregation: A substantial portion of the electricity use is not part of the aggregation (i.e., Newton Power Choice. One part of this is that there is a much smaller percentage of aggregation in non-residential customers.

Halina remarked that if the non-agg customers are unaware of their option to join, it is an opportunity to increase aggregation.

Michael commented that the focus needs to be on substantially increasing participation by non-aggregation customers; getting them in at the default level will accomplish more than inducing current participants to opt up to 100 percent renewable.

So, it's worthwhile to go to the large users in BERDO and address the their participation in the aggregation. Jim noted that there are likely many residential customers not taking part in the aggregation because they would only be automatically enrolled if they had regular Eversource accounts; many may be with commercial suppliers who promise lower rates along with "green energy", though much of that is RECs from out-of-state wind or hydro, rather than Class I renewables as provided by Newton Power Choice. This may be a difficult task to get those people to leave the commercial suppliers and join the aggregation.

4. Natural gas versus heating oil trends – Evan said that we don't see much impact on conversions from the more expensive oil to cheaper gas. Michael commented that it doesn't seem that price is driving fuel conversions, so there's a lesson here regarding the cost motive for going to heat pump from combustion furnace.

Phil commented that there was a big push with substantial discounts in the 1990s to encourage the conversions from oil to gas; the data Evan is presenting begins after 2000..

Michael added, that the oil-to-gas conversions were about marketing, not price, and the idea of having the cleaner fuel. Evan said that since 2015 about 1000 residential premises changed from oil to gas.

Cory posted the following information in the chat:

A useful report from the Yale Program on Climate Change Communication. Today, they subdivided and pie-charted the masses of people who are "Alarmed" about the climate situation. Turns out 20% of them, though alarmed, are "Inactive," 34% are already "Active" (this means YOU) and 46% are "Willing." Furthermore, "Almost none of the Willing Alarmed are currently participating in [a campaign to convince elected officials to take action on global warming], but a large majority say they "definitely" (13%) or 'probably' would (55%)."

Jim agrees with Cory that the lesson of oil-gas conversion is relevant to encouraging future conversions from gas to electric heat pump.

3. Discussion of draft memo on recommendations to the City

Jon walked us through the memo, which is attached to these minutes..

Bill observed that there's a lot of training called for in the memo. What is the City's role, e.g., recruitment of contractors into the program.

Jon said that supply houses often are oblivious to the new technologies, and there aren't activities sponsored by them to promote these to contractors. So the City's cachet and backing could be very helpful. Bill said, so maybe City could co-sponsor with Mass Save for events that would draw architects/designers, vendors, and contractors together. Also work with manufacturers reps to hold events. Maybe get Inspectional Services Division to participate. And the City is a large customer so there should be relationships there that can be tapped.

Bill cited Portland Group, Republic Plumbing, and Plumbers Supply, all of them with a Newton presence.

Jon continued, there is also the educational side – trade schools, CEC, DOER programs, etc., (see list in the memo). The City could maintain a training portal to direct people to these programs.

Regarding incentives, it still has to be worked out.

The Energy Coach role – should include outreach to contractors and professionals as well as homeowners.

Bill said, the City wants to identify a couple of home energy performance contractors (HPC's) to provide expanded services beyond the MassSAVE program – for heat pumps, EV chargers, provide info to help homeowners think about solar. “One-stop service” concept, e.g., for heat pumps needs to consider electrical service to the home, age of the existing boiler, etc. So if residents don't participate in the HPC program, they can be educated by the vendor. The City is developing an RFQ now for interested contractors to be considered.

Jon said that the data we just saw from Evan indicates that the main motives are comfort or replacement of failing equipment, less often to go more renewable. The contractor/subcontractor or repair person tends not to even consider the heat pump option.

Bill said the HPC RFQ is for home performance contractors asking them to expand the services they provide through MassSave. In return, city helps market them, endorses them to consumers.

Jon asked, do such providers exist? Bill replied that we are hoping to ascertain that through the RFQ process. If not satisfied, may need to back off some services.

Halina suggested to defer the second item in the memo to next meeting. Bill said that we should feel free to send the memo to the City for consideration.

Bill added that they had planned to hold PHIUS training in Newton when interrupted by Covid. We could start by offering that kind of program.

Halina asked Jon to work on revisions to part one of the memo.

Demie commented that we should have vendors at the October 17 Harvest Festival, in conjunction with Green Newton, 350, Mothers Out Front, etc.

Bill said that Liora has been talking to Paula in Cultural Affairs about City involvement in the environmental side of the Harvest Festival.

Phil asked, how do we get general contractors involved in this? Maybe that could be done at Harvest Fair.

Cory suggested that we could get Nick Falcoff (a Newton based contractor doing high performance buildings) to participate at Harvest Fair. Jon agrees with this idea.

CA also encouraged us to look at the Attorney General's stakeholder process. She posted the following in the chat:

- You may want to watch the AGO videos of the stakeholder process. There is room for input until Aug 3 on how the design process will move forward, what are the issues, etc. This is critical to how the AGO sees the transition off of gas, reduction of carbon emissions and meeting the roadmap to 2050 legal requirement.

<https://thefutureofgas.com/>

<https://thefutureofgas.com/sep> - recordings

The meeting was adjourned at 8:55

Respectfully submitted by Jim Purdy