

# Minutes of Pepperell Climate Change Committee – 2022-06-09

Meeting Recording: [Custus VOD Widget - Climate Change Committee Meeting, June 9, 2022](#)

## Committee Members in Attendance:

Robert Cataldo  
Renee D'Argento  
Jason Veysey  
Jessica Veysey

## Guests:

Tony Beattie

## Agenda for June 9 Meeting:

1. Open meeting
2. Acceptance of minutes from prior meetings
3. New Business Discussion / Action Items
  - a. Community Solar project update
  - b. Community Outreach update
  - c. Tree retention and protection
  - d. Municipal Aggregation next steps
  - e. Pepperell GHG inventory
  - f. MUOD design guidelines
4. Any other business not reasonably foreseen by the Chair
5. Adjournment

## Meeting Minutes

### Open meeting

Ken opened the meeting.

### Acceptance of minutes from prior minutes

Bob moved to approve the accept the minutes from March 10 and May 12. Jim seconded.

At 10:20, Jim proposed amending the motion to only include approval of March 10 minutes and Jason seconded. The motion approving the March 10 minutes carried unanimously.

## Project Updates

### Community Solar project update – Jason

- Consultants are in “analysis mode”. They expect to provide *preliminary analysis of business model* results by middle of June.
- Subcommittee (Bob, Ken, Jason) and additional invitees (Mark Matthews, Ken Kalinowski, Quintin Cutler, Andrew McClain) will review preliminary findings and return specific comments and suggestions as to how to refine the findings to help prepare the final analysis.

- *Final analysis* expected end July, with a presentation to the *Climate Change Committee* when complete.
- Investigating models segmented by a few different types of ownership:
  - *Town owned*
  - *Developer owned*
  - *Special-purpose entity owned* – a special LLC set up to administer the project
- Investigating different levels of build-out
  - < 500 kW build-out, which allows participation in MA SMART program without necessity to deploy energy storage
  - Maximal build-out, involving energy storage and about 1.2 MW of storage
  - Designs that would incorporate both investor participants and subscriber participants
  - Different business models that combine these major dimensions
- Preliminary analysis indicates that *maximal build-out with storage and participation in the SMART program* is likely to be most beneficial.
- No preliminary indication of which ownership model is recommended, but it appears they are leaning toward developer-owned. It remains to be seen how they will treat *investor participants vs monthly subscriber participants*. (Request for analysis was only made the previous week.)
- Members can request to be included in the preliminary analysis or wait for final analysis.

#### *Questions on Solar Project*

Bob: Expressed preference for an in-person work-group review of preliminary findings

Jason: Either in-person or online is ok – will decide later

#### *Related question in Installing Recharge Stations*

Tony: Andrew shared that he's talking with energy companies that will be *installing recharge stations*, suggested that the committee should be consulted. Wanted to know if anyone had been contacted.

Ken: Aware of this effort, but had no details

Tony: Will asked Andrew for the Climate Change Committee to be included.

#### Community Outreach update

##### *Proposal for Funding to Hire an Intern*

Ken: at the last meeting he mentioned that he was trying secure \$3000 from the Master Plan Implementation Fund to hire an individual (for ~3 months) to help increase capacity on the EnergizeMass ([greenpepperell.org](http://greenpepperell.org)) and help with social outreach.

Ken will present at the meeting originally scheduled for June 6 and deferred to June 21, and will provide an update to the committee afterwards.

##### *Updates on [greenpepperell.org](http://greenpepperell.org) Website (Jim & Ken)*

- Have committee members seen the website?
- Try to get more content out, and start putting weights on goals we are achieving – will start to be available in July

- Ken will provide editorial leadership
- Sue will lead graphic design and photography
- Jim will post articles that appear on the website (webmaster), trying to keep the site manageable
- Juliana Molina of the Invasive & Native Plant Advisory Committee is also participating in creation of content and organization of the website
- We're still vague in our what events should be catalysts/triggers for changing the website.
  - There's a particular concern about keeping the website from getting **stale**
  - Jim requested that members occasionally visit the site and provide feedback
  - In particular, if you see content that is incorrect, please send an email to the people who are responsible for the content (currently Ken & Jim).
  - Jim also suggested a monthly teaser to remind members to review

#### *Suggestion for a Weekly Concert Series to Publicize Website*

- Tony suggested something exciting and attractive that the public would be interested in to publicize the website
- Perhaps a weekly concert series sponsored by the Climate Change Committee, with performances by local artists, interspersed with short talks about committee's work
- Perhaps get the *Ads Council* to help with that (Emily Piper – farm program with professional musicians)
- Maybe put together a team to organize for October
- Ken & Tony: annual one day event vs. series ?
- Maybe engage with other committees: *Ag Commission, Invasive and Native Plant Advisory Committee, Ad Council* – Tony to talk with Cheryl & Deb Fountain

#### Tree retention and protection (Jessica)

- No particular updates
- Since last report, Committee has questioned how the tax incentive for tree preservation might be set: replacement value for trees vs some other forested value
- Ken has talked Town Assessor, and learned that any such incentive requires working in Town Administrator and at state level
- Property is valued differently for different property types, which complicates a possible incentive – model after Chapter 61 since it's held as forestry land
- Replacement value (if used) would be fixed, not dependent on property type
- Calculating financial impact to town is difficult

#### Municipal Aggregation next steps

- Waiting for Town Counsel to finish review of contract with Peregrine
- Ken will post updates as they occur

#### Pepperell GHG inventory

- Ken sent the *greenhouse gas inventory* that NIMCOG performed on behalf of the town using the MAPC methodology (based on greenhouse gas protocol for cities and towns)
- Impressions of document?

- (Jim) Why was the study based on 2017 data, since we have both Electrical and Gas data from 2020 and 2021
- (Jessica) 2017 is the latest complete dataset for
- (Ken) Expectation is that inventory will be updated every couple of years
- (Ken) Did anything stand out?
- (Jim) Compared with datasets with Acton and Westboro that Ken sent. More than 50% of GHG is from *transportation*. Next largest was *home heating*. These two are obvious targets to attack. No granularity of electrical vs non-electrical home heating – need more info.
- (Jason) It seems like a diligent and well-constructed inventory
- Potential inventory gaps:
  - (Jason) doesn't account for non-energy sectors: *agriculture, land use, land use change, forestry and industrial products, processes and product use*
  - *Land use change* may be a significant GHG factor for Pepperell, given earlier discussions about the amount of GHGs that are trapped by trees and soil in forested areas
  - *Land use change* should be part of any *Zero Emissions Plan* we might adopt
  - (Jim) *Construction* showing a *0 contribution* seems inaccurate
    - (Jessica) Inventory may have include construction in other categories
    - (Jason) *non-road heavy equipment use in construction* is included (apparently down-scaled county data)
  - (Jason) didn't include propane use
  - (Jason) Plane travel not included
- (Jason) Committee has little ability to affect *transport emissions*
  - (Jim) We could potentially provide infrastructure for *emerging transportation innovations: EV charging stations, fuel-cell fueling infrastructure (hydrogen, etc.)*
- (Jessica) One thing that stood out was that on the *municipal side*, emissions attributed to *town fleet* of vehicles was greater than that of the buildings. Switching to EVs for town fleet is desirable
  - (Jason) Town fleet appears to be very energy inefficient
  - (Tony) Talked to Mike Schrader regarding ARPA money that went to buying a new truck. Mike's understanding was that electric truck technology wasn't capable of plowing snow for long enough without requiring a recharge
  - (Tony) agrees that the town needs to model its fleet better
- (Tony) This an *emissions* study, not a *sequestering* study – suggests exploring that.
- (Jim) Should we try to get the inventory amended to include forests?
  - (Ken) yes and no – it's just meant to be an inventory, vs a full accounting of emissions
  - When preparing a plan to achieve 0 emissions by X date, the forests should be included, in particular assuring preservation
  - (Jessica) – maybe add a one-page forest addendum
  - (Jason) – sequestration wasn't addressed because they didn't have data. Probably too hard to quantify at the municipal level. We have collected rough data on these factors and should use if possible.
- (Renee) – how do we measure the progress that's being made over time?

- Can measure gross decline in GHGs, but would like to know where the decline occurred. Example: did a decline occur because of conversion from fossil fuels to electric?
- (Ken) – this points to challenges of using this tool – not based on actual inventory of Pepperell household, but instead uses the census data and downscales to a community of our size. The metric will reflect what the state as a whole is doing, but not so much what Pepperell is doing.
- (Jason) Metric is currently useful for planning, but not useful for monitoring progress
- (Renee) What can be a tool for monitoring progress?
- (Jim) Suggested that we *create an GHG Inventory Summarization article* on the greenpepperell.org website. A graph that shows community-wide emissions could show progress. Could provide a questionnaire that determines how many households have installed photovoltaics, heat pump systems, etc.
- (Renee) There are 4300 households and the data isn't going to be robust
- (Jason) Number of photovoltaic installations is available from ISO New England (by town and capacity deployed). Inventory of building heating systems doesn't exist – would have to do survey.
- (Jim) MassEnergize town allows people to weigh in on what they've done, the 5% of people who care
- (Jason) We could probably get vehicle registration records from town or state – how many are conventional, hybrid, or electric?
- (Renee) Cross-state traffic. (Ken) Doesn't count for our inventory
- (Tony) asked Dave Rider how many buckets were considered in the assessment. E.g., did they measure the carbon footprint for extracting fossil fuels from Libya as used in Pepperell? The answer was yes – they went back to sources. It's possible they did include plane travel.
- (Tony) Need to grow Pepperell while reducing carbon footprint. The power of the tool is to be able to assist with this.
- (Ken) However we use the inventory, the glaring headline is that we create 100,000 metric tons of CO2 use each year – state says we need to get to net 0 by 2050.
- (Jason) It's much better to start reducing GHGs immediately, rather than waiting until 2050 and then suddenly eliminating all GHGs.
- (Ken) We're likely to miss our targets as a society and exceed the 2 degree rise in temperature.
- (Renee) We're at a crossroads with our zoning and planning. There's push to develop more apartments than necessary for meeting affordable housing targets. Design guidelines become very important as the zoning is being done and the building codes are ahead of the current stretch code.
- (Jason) Even if we get buildings right, if we add more people, emissions from vehicles will grow.
- (Renee) Population isn't growing - household size is decreasing.
- (Ken) Will discuss the numbers that we have received with the Select Board and ask the town and residents to start taking action.

#### MUOD (Mixed Use Overlay District) design guidelines

- Heads up that Jenny on behalf of the *Planning Board* has asked for the Climate Change Committee to review and comment on the *design guidelines*.
- The design guidelines address building design, building envelope design, green space, etc.

- Planning board is looking for feedback by July 8.
- Ken asked who on the committee could review the MUOD and help provide consolidated feedback to the planning board. Renee and Bob agreed to participate.
- (Jim) Can we just capture a couple of high-level principles (such as zero-emissions heating systems) that we can use to guide the discussions?
- (Ken) Zero emissions HVAC systems should be a goal of the design guidelines. There will be others based on work of the committee. **This exercise is to review the designs as they have been written.**
- (Renee) MA Supreme Court ruled against Brookline for requiring a specific type of heating system.
- (Ken) Can be a design guideline, but not a bylaw.
- (Jim) Since we're creating an *exception to zoning rules*, then we should be able to require more stringent guidelines and not offer the exception if rules aren't agreed to.
- (Ken) Is a guideline, or can it be mandated? How does it apply to things like Overlay Districts? Somerville – green zone ordinance. Mandate 0 emission combustion in buildings. Our principles should be zero emissions on buildings, EV stations, high-energy efficiency, green rooftops that reflect light rather than absorbing it. Are these only recommendations or requirements?
- (Tony) Met with Jenny Gingrich (Town Planner) and asked how we can talk more about climate change in our town planning. Both will be attending a webinar at Clark University on June 24 – meeting on *Community Climate Resilience – Bylaws and Best Practice*.

#### Any other business not reasonably foreseen by the Chair

- (Jessica) Filling of two board positions.
- (Ken) Chuck and Sue are leaving the board. Sue wants to continue to assist with maintenance of the website.
- Positions have been posted on the town website. Please send qualified recommendations.
- (Tony) conversation with Emily and Eric Piper – a participant in their program is a microbiologist and may be interested.

#### Adjournment

- Motion: Renee, Second: Jim. Approval: unanimous.