



**Hingham  
Climate Action  
Planning Committee**

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**MEETING MINUTES**

DATE: March 29, 2023

PLACE: Remote meeting via Zoom

MEMBERS PRESENT: Brad Moyer (Chair), Tom Morahan, Alyson Anderson, Gary Tondorf-Dick, Elliott Place, Beth Porter, Kathy Reardon, Nancy Wiley, Maria Zade

MEMBERS ABSENT: Carlos DaSilva, Henry (Bob) Hidell

GUESTS: Brianna Bennett (HMLP), Brenda Black (Advisory Committee), Tanya Bodell (Energyzt), John Malloy (Energyzt), John Borger, Ginny LeClair (Town of Hingham), John Molloy (Energyzt), Paul Sprecher, and Tony George

ATTACHMENTS: CAPC Agenda Mar 29, 2023; HCAPC Meetings Minutes March 16, 2023

The Chair, Brad Moyer, after establishing quorum, called the duly noticed meeting to order at 7:04 PM, and presented the Virtual Open Meeting Protocol and Procedures as outlined in the Governor’s Chapter 20 Pandemic Directive of 2021.

Brad then proceeded with the first agenda item, Review of the greenhouse gas inventory (GHG inventory) added to the climate action plan, and asked Tanya and John of Energyzt to present on the GHG inventory, which falls under Appendix B in the Climate Action Plan (CAP).

Tanya then presented an overview of the emissions of the Town by sector, displaying a pie chart that provided the Town’s carbon emissions by buildings, transportation, electricity supply, and waste. Buildings constituted the largest contributor by far, and thus also the Town’s best

opportunity for reducing carbon emissions. Tanya also highlighted that, within the buildings sector, residential buildings contributed the majority of carbon emissions.

Tanya also displayed a Sankey diagram that provided an additional level of detail on sector-specific emissions, highlighting that petroleum constituted a large segment of the emissions at both the residential level and then also within the transportation sector.

Based on the level of petroleum GHG contributions, Kathy questioned the pros and cons of moving from petroleum to natural gas, i.e., whether there could be some benefit in natural gas providing an interim step. Tanya noted several of the cons, including the need to lay natural gas piping through much of the Town yet and the number of existing gas leaks identified in the Town. John Borger added that natural gas systems in homes typically have a 15-year lifespan, meaning that you significantly hinder a 2040 decarbonization date as a goal. John also noted that heat pumps offer much greater efficiency than natural gas and is a better first solution for moving off of petroleum.

Brad then asked whether we have additional detail on the breakdown of residential buildings on petroleum versus natural gas and the volumes consumed in home heating. Tanya indicated that Energyzt has estimates, but gathering specific information is hindered by oil delivery companies not willingly sharing aggregated customer information. Estimates indicated approximately 600 gallons per home per year based on what information Energyzt was able to glean from the oil delivery companies. Gary indicated that he believed that number to be too low, expressing concerns that some homes can go through upwards of 250 gallons a week. Tanya indicated that Energyzt was open to increasing that estimate if there are additional data to support such an increase.

John Malloy began to go through the methodology and assumptions that went into calculating the GHG inventory. John walked through the various data sources they used to generate home GHG emissions: property types and sizes from Town data sources; heating fuels used by property; and square footage. Using National Grid data plus estimates for oil, propane, and wood heating sources, including the differences in efficiencies among the heat sources, Energyzt was able to create estimates on the GHG emissions.

At this point, several members of the Committee raised various questions, working through an understanding of the assumptions made and the approach in making those assumptions, including efficiency estimates, use of National Grid data as a proxy for oil-based homes in terms of sizing and energy use, methods of converting among different fuel sources to drive the estimates, and total numbers used.

Next, John reviewed municipal and solid waste recycling surveys for Hingham and multiple other communities, which indicated total tons of waste, and thus allowed for emissions estimates to be generated by using the EPA emissions conversion factor. Wastewater emissions were

excluded for purposes of calculating waste emissions as they typically are miniscule (<1% of waste emissions).

John then discussed the HMLP emissions in reliance on the 2020 report as the 2021 report emissions were not yet available. The 2020 report indicates the amount of electricity used as well as the percentage breakdown of the sources. From that, we are able to calculate CO2 emissions from those sources that generate CO2. Tanya further noted that these emissions generations are based on the Massachusetts reporting standards, which the Committee agreed was the appropriate standard to use.

Lastly, John addressed transportation emissions. John looked at registration information to determine the number of vehicles registered in Hingham (both passenger and commercial, and fossil-fuel based versus electric), estimates for miles travelled using the Hingham 2014 census, Bureau of Transportation annual statistics (most recent year for which data were available was 2020) on average miles per gallon for different vehicle types, and commuting miles. Using these data, John generated a total fuel consumption, which was then converted to CO2. One additional factor that was considered was determining what miles occurred with Hingham as opposed to outside (Scope 3 emissions), and that to generate the Hingham miles travelled for developing the carbon inventory, John assumed 50% of all miles travelled occurred in Hingham. (That estimate was in part determined based on the total square miles in Hingham versus all miles travelled by Hingham vehicles using the Bureau of Transportation estimates). In addition to these estimates, the Committee reviewed assumptions made on the use of public transport, such as the commuter rail, ferry, and bus transit. Energyzt acknowledged that this section is rife with estimates because the data are not complete, and the Committee determined that those estimates were reasonable based on the available information.

The discussion concluded with the Committee acknowledging and stipulating that it was of great importance for the inventory methodology and the underlying assumptions made to be documented within the CAP, both to foster its ability to be replicated in the future when measuring progress against carbon reduction, and also for proper recording in the emissions tool the Committee had previously selected, CDP.

As the hour was late, Brad moved through the remaining agenda items expeditiously.

Discuss additional feedback received on the climate action plan, Update on public presentations to date and upcoming presentations, and Review timeline for finalizing the Climate Action Plan

The Committee discussed the logistics of incorporating other feedback received while awaiting Energyzt to complete its inventory modeling and other changes based on this evening's conversation. The Committee agreed to hold off on entering additional comments until Energyzt could complete incorporating their comments, and then any additional comments should be sent to Brad, who will incorporate them and turn the draft for the next meeting.

Brad then updated the Committee on his presentation of the draft CAP to the School Committee, which went well, and noted that he requested feedback by the end of April due to the massive amount of time being spent focusing on Town Meeting and the override vote. Additional meetings included the Planning Board and HDIC, along with the Select Board. Any planned meeting with the Select Board is awaiting a near final draft of the CAP.

Review and approval of previous meeting minutes

Brad then reviewed the minutes from March 16, 2023, which Beth had thoughtfully composed. After walking through the minutes, no comments were offered, and Tom made a motion to approve which was seconded by Elliott. On a rollcall vote, the minutes were approved with one abstention.

Other business brought before the Committee

On the matter of other business, Brianna raised the South Shore Eco Fest, which is planned for May 20<sup>th</sup>, and Brianna welcomed members of the Committee and the community to participate.

Following Brianna's update, members of the Committee wished Brianna a very happy birthday!

Discussion of possible agenda items for the next meeting and scheduling of that meeting

Brad noted that the primary, if not sole, agenda item for the next meeting would be a detailed walkthrough of the CAP with the feedback received to date. Because of the Town Meeting on April 24<sup>th</sup> and the tremendous amount of time expended by many members of the community and the Committee in preparation for that date, the Committee agreed to set the next date for Wednesday, May 3<sup>rd</sup> at 7pm.

There being no further business to come before the Committee, the meeting was adjourned at 9:48pm.

Respectfully submitted,  
Brad E. Moyer