



**Hingham
Climate Action
Planning Committee**

MEETING MINUTES

DATE: October 13, 2021
PLACE: Remote meeting via Zoom
MEMBERS PRESENT: Brad Moyer (Chair), Carlos DaSilva, Gary Tondorf-Dick, Kathy Reardon, Beth Porter, Elliott Place, Maria Zade, and Thomas Morahan
MEMBERS ABSENT: Nancy Wiley and Shannon Kacherovich
INVITED GUESTS: Brenda Black, Advisory Committee liaison
ATTACHMENTS: [Charter](#), [MCAN Clean Energy Checklist](#), [Solar Mobility Proposal](#)

The Chair called the duly noticed meeting to order at 7:05pm.

Discussion and Approval of Minutes

The Committee voted in favor of approving the minutes from the September meeting. All members present voted in favor with the exception of Beth Porter. Beth abstained because she was absent from the prior meeting.

Discussion and Approval of Charter

Brad gave an overview of the comments and suggestions he had incorporated into the Charter based on discussion at the last meeting and individual email comments. Following a discussion between Brad and Brenda, the Committee chose to strike the term "subcommittee" in favor of "working groups." The Committee felt that the later term better reflected the true work of these groups, namely research and interactions with the community. In the "Record Keeping" section, Gary suggested that we change the first sentence to specify that while meetings of the CAPC would have recorded minutes, working groups would instead be asked to report back informally to the Committee.

At the close of discussion, the Chair called for a roll call vote. All members voted in favor of approving the Charter as finalized at tonight's meeting.

Discussion Re: Forming Working Groups (formerly Subcommittees) and establishing goals and initial tasks for any subcommittees so formed

After discussion of the merits and purviews of potential working groups, the following was approved by roll call vote:



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Name	Purpose	Members
Hingham Greenhouse Gas Reduction Initiatives Working Group	To investigate and compile actions taken by Town Administration and Town committees focused on sustainability and greenhouse gas reduction efforts	Carlos Da Silva Kathy Reardon (lead) Tom Morahan
Energy Infrastructure Working Group	To research demand and capacity issues related to Hingham's energy infrastructure and transitioning to an all-electrical power source	Gary Tondorf-Dick Tom Morahan (lead)
Hingham Community Engagement Working Group	To engage with concerned citizens groups, both for informing the CAPC as to desires of the Town's citizens and to help report out the CAPC's activities and recommendations	Elliott Place (lead) Carlos Da Silva Beth Porter
Regional Engagement Working Group	To engage with regional municipal and citizen groups to share ideas and opportunities for pursuing net zero GHG emissions, including the hiring of a sustainability director	Maria Zade (lead) Elliott Place Carlos Da Silva
Residential Net Zero Working Group	To investigate how to improve energy efficiency and transition residential fossil fuel reliance onto electrical and/or renewable energy sources	Gary Tondorf-Dick (lead) Brad Moyer
Grant Research Opportunities & Incentives Working Group	To research and recommend pursuit of grant and incentive opportunities available for the Town and its residents	Maria Zade Beth Porter (lead)

Consultant Update

While MAPC had initially indicated that they would not be available until summer 2022, they now indicate that they may be able to begin working with the Committee in January 2022. MAPC will confirm with Brad sometime during the week of October 18th. The committee agreed to meet again on October 27th to review MAPC's response and decide further steps, e.g. beginning the RFP process to contract with another consultant, if needed. Beth suggested that we could ask Kathy Reilly to take the initial steps in the RFP process in the event that MAPC is unavailable. Brad said that he would discuss it with Kathy Reilly.



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Discussion of Net Zero Building Definition Provided by Hingham Net Zero and the Energy Action Committee

The discussion was postponed to the October 27th meeting.

Report from the Open Forum Discussion of Town and Regional Climate Activity

Elliott attended the 350MA/Sustainable South Shore Clean Energy Zoom meeting on September 29th. The meeting was attended by more than 30 representatives of 16 South Shore towns, plus Needham and Peabody. Senators Marco Pacheco and Pat O'Connor spoke about the following initiatives: Bill S.9; Next-Generation Roadmap for Mass. Climate Policy; fossil-fuel-free affordable housing legislation; H 2167 promoting local all-electric buildings and homes ordinances; and S.604, "establishing tracking and reporting requirements for Massachusetts transportation fuels and associated greenhouse gas emissions."

Bill James from JPods.com discussed Solar-Powered Mobility Networks, which are town networks of personal transportation vehicles that run from rails under solar canopies. He suggested that towns such as Hingham and Hull cooperate and connect such networks within their borders.

There was discussion of Municipal Aggregation, Stretch Codes, back-up batteries and many other initiatives in surrounding towns.

Mass Power Forward and Mass Climate Action Network presented a South Shore Local Clean Energy Checklist. Based on this checklist, Hingham ranks well ahead of other South Shore communities in terms of sustainability efforts.

The group discussed setting up a Slack Communication Network to share ideas and initiatives. They also shared ideas of how to engage young people in coming up with innovative climate actions. One suggestion was to set up high school competitions for the best ideas. The group challenged all representatives to speak to their High School Green Teams.

New Business:

Laurie Freeman has resigned from the Committee as she is no longer a resident of Hingham. The Conservation Commission is expected to appoint a new representative soon.

Carlos reports that, at a joint meeting of the Hingham School Committee, Select Board, and Advisory Committee, Advisory Committee Chair Robert Curley inquired as to whether net zero concerns were being incorporated in the plans for the Public Safety and Foster School building projects.

Elliott reports that Hingham Net Zero's next general meeting will include a discussion with Kate Hodges, assistant town administrator covering the role of the Sustainability Director in Concord on Wed, Oct 20th at 7pm via Zoom.

Link: <https://us02web.zoom.us/j/87349394001?pwd=cjd4NDNJbEswcDEwK3dGcGZyQmN2UT09>



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Meeting ID: 873 4939 4001

Passcode: 403656

John Borger requests that minutes be posted on the Town website. He further asks whether there is a role for volunteers outside of the appointed members of the CAPC on the working groups. Brad says that there can be such a role.

Kathy asked Brenda to provide guidance on when the Committee would need to provide a proposal for a Sustainability Director. Brenda reports that budget requests are submitted around Thanksgiving. Hingham Net Zero is likely lobbying the Town Administrator now for a Sustainability Director. If we choose, the Committee can provide support in the next few weeks.

Carlos suggests that we create some type of document to counteract spam calls from Eversource and others who do not contract in Hingham.

Next meeting

The next meeting will address the Committee's next steps in the consultant engagement process and a discussion of the Net Zero Building Definition.

This meeting is scheduled for Wednesday, October 27th at 7pm.

The meeting adjourned at 9:09pm.

20th Century Transportation

Energy Technology **Fossil fuels**
Gas engines
Trains, automobiles, subways, planes

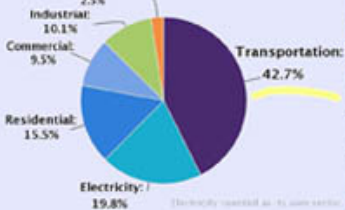
Space **On streets** --Cars, bikes, pedestrians
Tunnels
Up to 12-lane highway

Air quality 2019: **415 ppm** carbon dioxide CO2
Transportation has passed electricity as largest source of emissions in US
Asthma from pollution. Lungs susceptible to COVID
10-foot sea level rise by 2065 forecast, drought, fires

2016 MA Greenhouse Gas Emissions

Source: Massachusetts Department of Environmental Protection (MassDEP)

Other (agri., waste, HG trans., dist.):



Rose Kennedy
Greenway

Fort Point
Channel Area

Blue Hill Ave.

More info: YouTube Solar Mobility Song
www.baystatesunway.com, www.jpoids.com
www.facebook.com/hyperloopMA

21st Century Solar Mobility

Clean energy
Solar, computers, energy storage innovation
Solar Personal Rapid Transit/JPods, Hyperloop
Grade separated -- Above streets
Also evacuated tube tunnels for Hyperloop
Pair of overhead beams going in two directions
have **capacity of 12-lane highway**

Aim for **350 ppm** CO2 to stabilize climate
Use space over streets to generate solar energy
Zero emissions from 100% clean energy powered transportation.

Time Average American loses 97 hours per year in congestion. Boston average: **129 hours**.
Drivers wait for lights, traffic, finding parking
Transit riders wait for buses, trains, passengers

Equity Loss of time affects everyone

Safety U.S.: **38,000 vehicular deaths** per year

Cost Danger of COVID in mass transit
Taxes subsidize transit

\$530 million per mile to build Greenline extension
\$1.45 per passenger mile to operate bus

Jobs Jobs lost due to COVID

Solar Personal Rapid Transit (Solar PRT) pods at stations **24/7**. **No stops** till destination.
Hyperloop MA travels up to 670 mph
Walk or bike to nearby station or use last-mile service

Everyone will have affordable great transportation

Use safety inspection, licensing and insurance used for theme parks, which have **0 deaths**
Provide clean air for pods

Private investment. Citizens can own shares.

5% revenue to right-of-way owners.

\$15 million per mile to build Solar PRT
\$.03/passenger mile to operate Solar PRT

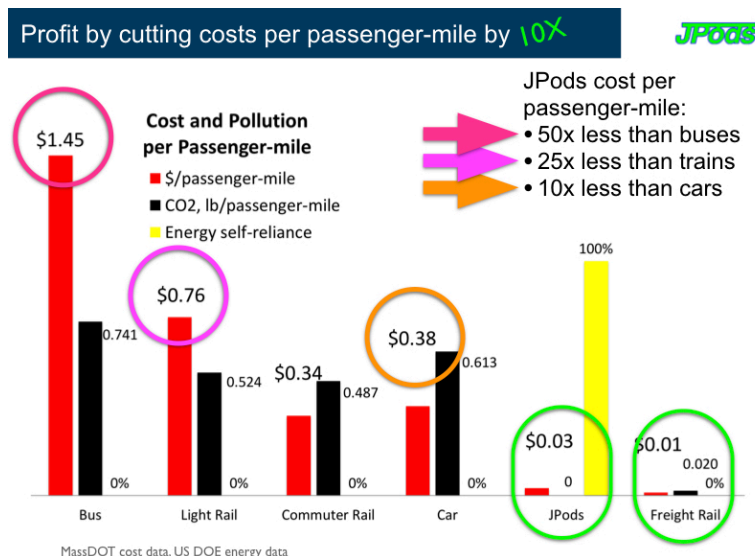
Design, construction, and operation jobs
Driving jobs for "last-mile" electric vehicles

Bottom line **More of the same**

Simultaneously work with State Solar Mobility law and on local projects with local approval

21st Century Solar Mobility offers an opportunity to solve the 43% of Massachusetts greenhouse gas emissions that come from transportation by using solar over street rights-of-way to power the transportation, which addresses the fundamental goal of getting back to 350 ppm carbon dioxide while addressing the essential goal of equity for all people.

- Check out existing **Personal Rapid Transit examples** at <https://www.youtube.com/watch?v=iaSaWfw07Sw> for similar, though not solar powered, transportation that already exists: **Heathrow Airport Personal Rapid Transit**, which opened in 2011, connects business parking and 3 terminals, and **Morgantown Personal Rapid Transit**, which opened in 1975, connects 3 West Virginia University campuses and downtown Morgantown. For both, riders choose the station they would like to stop at and get in a pod that goes directly there.
- **Massachusetts legislation.** At the start of 2021, the Massachusetts legislature has adopted legislation that will help move Solar Mobility ahead.
- For insight into how global transportation transformation might be achieved **within ten years**, treat yourself to watching at least the first few minutes of Tony Seba’s presentation on the [Future of Transportation / Keynote: 2020 NC DOT Transportation Summit - YouTube](#) In addition to the Transportation as a Service (TaaS) described by Tony Seba, there are two other key components for a complete transformation to electric TaaS: 1) Use **solar over streets** as an **ample source of clean electric energy** for transportation, 2) Build a **grade-separated network** so transportation flows easily and passengers only stop at their chosen destinations and so streets become safe for their other uses, including walking and biking.
- For a sense of experiencing Solar Mobility, **enjoy the Solar Mobility Song - YouTube** at <https://www.youtube.com/watch?v=FSQS4zOrWiU> You can also find the video by searching for “Solar Mobility Song - YouTube” on the Internet.
- Comparison of operating costs and carbon dioxide emissions from www.jpods.com JPods is Solar Personal Rapid Transit.



South Shore Local Clean Energy Checklist

Key at bottom of page 3.

As of 2019, with Hingham as of 2021

Developed by Mass Power Forward, including Mass Climate Action Network

http://www.massclimateaction.org/local_clean_energy, with additions from Sustainable South Shore as noted

www.sustainablesouthshore.org

	B r a i n t r e e *	C o h a s s e t	D u x b u r y	H a n s o n	H a n o v e r	H i n g h a m 2 0 2 1	H u l l *	K i n g s t o n	M a r s h f i e l d	M i l t o n	N o r w e l l	P e m b r o k e	P l y m o u t h	Q u i n c y	R o c k l a n d	S c i t u a t e	W e y m o u t h
Total actions:	20	29	24	18	22	42	27	28	23	37	12	20	23	24	25	31	21
Energy efficiency																	
Completed energy audits in municipal buildings to identify energy-saving opportunities	X '05, IP	X	X	X	X	X, S	X 80%	X	X	X	X	X	X	X	X	X	X
Implemented energy efficiency upgrades in municipal buildings:	S	S	IP	X	X	S	S	X	X	X	X	X	X	X	X	X	X
• Installing LED or high-efficiency fluorescent interior lights		S	IP	X	X	S		X	X	S	X	S	X	X	X	S	IP
• Installing occupancy sensors to automatically turn lights on and off as needed		IP	IP	X	X	S	S	X	S	X	X	S			X	X	X
• Installing new, high-efficiency heating and cooling equipment		IP	IP		X		S	X	S	S				X	X	S	IP
• Installing an energy management system		IP	IP		X	S	S	X	X	X		S	X	X		X	X
• Weatherizing the building (for example, by installing additional insulation or high-performance windows)		IP	IP		X				S	X				X	X	S	S
• Instituting a program to encourage building occupants to reduce energy use by modifying their behavior, such as turning off equipment when not in use		S	IP	X		S			S	X		X		X		S	S
Converted streetlights to LED fixtures	IP	IP			IP	X	IP	IP		X		IP	X	X	X	X	IP
Created a local outreach program to help connect residents and businesses with energy efficiency audits and upgrades	X	IP		IP		IP							X	X	X		
• Mass Save program outreach for homes		IP				X	S	X	X	X				X	X		
• Mass Save for businesses and institutions										X			X		X		
Town Workings																	
Established a committee to focus on energy, climate, and/or environmental issues	IP	X		X		X		X		X	X	X	X	X			X
• Local, volunteer-led						X		X		X	X	X		X			

	Btr	Coh	Dux	Hsn	Hvr	Hng	Hull	Kst	Mfd	Mlt	Nrw	Pm	Plth	Qnc	Rkd	Sct	We
Transportation																	
Adopted a Complete Streets policy, requiring streets to be designed with the needs of all users in mind (including cyclists and pedestrians)	X	IP		IP	IP	X	X			X	X		X		X	X	X
Installed bike lanes	IP					X	S			X	X			S		S	IP
• Are they being updated?				IP						IP						X	
“No idling” by-law in place			X	IP		X	X	X		X				X			
Street planning like traffic calming patterns and roundabouts being implemented	S					X	IP			X		X				S	
Permeable paving for parking lots, etc							S			X							
Installed electric vehicle charging stations that are open for the public to use	X					IP		X					X		X	X	X
Purchased electric vehicles for town fleet	5 + 6 IP	X								X						X	X
Purchased electric transit buses or school buses																	
<i>In addition, on the South Shore:</i>																	
High density zoning near transit stations						X											
Installed sidewalks along main routes						X	X			X		IP				S	
Planned Solar Mobility System Network																	
Held an electric car show	X					X	X	X					X	X			
Learned about support for working from home																	
Other Sustainable Actions																	
Created a bulk purchasing and outreach program for renewable heating technologies (e.g., solar hot water, air source heat pumps)	Mini re bate s									IP							
Composting programs		X	X			S		X		X						S	
Recycling for hard to recycle items such as styrofoam, lids, etc			X		X	S					X	X				S	
Tree plantings	X	X	X	X		X	X			X			X		X		
<i>In addition, on the South Shore:</i>																	
Ban plastic bags			X			X	IP	IP					X		X		
Toxic waste disposal program		S	X	X	X	X	IP	X		X	X	X		X		X	X
Create a community garden			X	X			X			X						X	
Require developers to replace water used in new construction on a 2:1 ratio								X	IP								X
Adaptation																	
Adaptation plan for increased heat waves, stronger storms		IP		X					X				X		X		
If coastal, sea level rise adaptation plan			IP			X	X		XC				X	IP	X	IP	

*Municipal Light Plant, BELD= Braintree Electric Light Dept., IP = In Progress, S = Some, hhs = Households, p=private, C=Committee, RECs=Purchased Renewable Energy Credits—Hingham update in 2021

So now what?

Now you are ready to get started! A reminder: it might be tempting to go for the big guns, even if you are in a beginner town. We don't recommend that - we want you to WIN in your first campaign (and second, and third).

Mass Power Forward is doing webinars on each of these tiers of policy and project recommendations, to help you get started in your town. We are also building a database of experts, developers, and state resources that can help you. Let's be in touch and thank you for all the work that you do!

For more information or for help and coaching to get projects done in your town, email masspowerforward@toxicsaction.org

Specific policy recommendations

Beginning steps

1. Do a **greenhouse gas inventory** to identify the largest sources of global warming pollution in the community. Create a basic climate action plan for the town. (short-term)
2. Conduct an **energy efficiency audit** of all municipal buildings, including schools, and complete all energy efficiency upgrades with a payback period of 10 years or less. Additionally, convert streetlights to LED fixtures. (medium-term)
3. Join the Commonwealth's **Green Communities** Program, which provides funding for local clean energy and energy efficiency projects. (long-term)
4. Adopt a **Complete Streets policy**, requiring roads to be designed in a way that is safe and accessible for all users, including cyclists and pedestrians.

Intermediate steps

1. Pass **community choice aggregation** (which allows the municipality to choose a default source of electricity for residents and businesses), with at least 5 percent additional Class 1 Renewable Energy Credits beyond what the state requires.
2. Advance municipal policies that **promote solar power** in public and private development through "solar-ready" requirements on new construction, renewable energy development on public buildings and community-wide solar challenges such as the Solarize Massachusetts program.
3. Increase access for all to **electric vehicles** through town purchases of electric buses, increasing the percentage of electric vehicles in town fleets, and installing electric vehicle charging stations that are open for the public to use. Learn about Solar Mobility Systems Networks.

Advanced steps

1. Create an **energy efficiency program** with a strong emphasis on serving renters and low-income families.
2. Create a **net zero plan**, setting out a roadmap to achieve zero emissions for buildings and transportation.
3. For communities with existing climate action plans, update the local climate action plan to incorporate **environmental justice and equity principles**.
4. Create a community outreach and bulk purchasing program to increase the adoption of **renewable heating technologies**, such as solar thermal, geothermal, and air source heat pumps.