Town of Harvard Energy Advisory Committee (HEAC)

Quarterly Update to Select Board
September 6, 2022

MEMBERS:

BRIAN SMITH – CHAIR
DAVID FAY
FORREST HODGKINS
PETER KELLY-JOSEPH
ELLEN SACHS-LEICHER

KARA MINAR, SELECT BOARD LIAISON

HEAC FY23 Goals

No.	Goal	Lead	Support
1	Decarbonization Plan – Reduce Emissions	Brian	Ellen
2	Buildings – Electrification Plan; Assessment / Energy Reduction Projects	Forrest	Brian/David
3	Vehicles – Convert to Electric Vehicles	Peter	Forrest
4	Vehicles – Charging Stations	Brian	Peter
5	Green Community Program – Meet Obligations and Maximize Grants	Brian	Forrest/David
6	Renewable Electricity – Solar Photovoltaic Systems	David	Brian
7	Renewable Electricity – Energy Supply	Ellen	David
8	Streetlights – Replace with LED Fixtures	David	Brian

① Decarbonization Plan – Reduce Emissions

Goal - Reduce Emissions 50% by 2030, 85% by 2050 to align with MA

Action	Status	Next Step
1. Obtain DOER grant funds for consultant	Completed July 2021	NA
2. Municipal Decarbonization plan – finalize plan by Nov 2022.	Initial review by stakeholders with review of climate plan complete	Perform another round of reviews with HEAC and stakeholders. Create implementation roadmap.
3. Community Decarbonization plan – finalize by Nov 2022.	Initial review by key personnel complete	Perform detailed review by HEAC, HCIC and other community stakeholders.

② Buildings – Electrification Plan; Building Assessment

Goal – Convert Harvard's municipal buildings from carbon-based fuel combustion to high efficiency electric heating.

- Building Electrification

Action	Status	Next Step
1. Develop a detailed long-range plan for strategic electrification, with financial analysis, to upgrade municipal building heating systems.	Not started.	1. Develop and issue RFP by Nov 2022. (Use DOER grant for RFP?) 2. Obtain funding and target plan by Sep 2023.

- Building Energy Assessment – identify energy reduction projects prior to electrification; also prerequisite for some grants

Action	Status	Next Step
1. Define objective of audits – electrification vs. efficiency.	In progress.	Coordinate with TBS building study.
2. Prepare scope of work for audits of all buildings.		
3. Develop plan for audits including cost and quality		
4. Obtain funding and schedule audits to be completed.		

③ Vehicles – Convert to Electric Vehicles

Goal - Convert Harvard's municipal vehicles from carbon-based fuel combustion to electric vehicles or other low carbon options

→ Initial target – replace all light duty vehicles with EV's by 2040.

Action	Status	Next Step
1. Prepare Town Vehicle Inventory. Coordinate with NGRID Fleet Advisory program consultant.	Inventory complete. Report and implementation plan in process.	1. Review Fleet Electrification report and recommendations. Review with Town Staff by Oct 2022. 2. Discuss info gap about vehicle use, miles, lifecycle cost, etc.
2. Identify candidates for replacement in short term.	Initially replacing police vehicles with Hybrids. Consider conversions to Hybrid of light or medium-duty vehicles.	Work with town staff to select vehicles.
3. Obtain quotes and identify funding sources.	Pending above.	

④ Vehicles – Charging Stations

Goal - Convert Harvard's municipal vehicles from carbon-based fuel combustion to electric vehicles or other low carbon options

→ Install chargers per plan by 2030. Maximize grant funding.

Action	Status	Next Step
1. Create Charger Plan for Town use on Town property.	Feasibility reviews performed by ECI. Charger are only partially funded if not public use.	Focus on Public Safety Building. 1. Obtain quote for Fast charger from ECI for police cruisers. 2. Determine if build-out will exceed electric supply?
2. Create Charger Plan for public use on Town property	Feasibility reviews performed by ECI. DC Fast chargers are only partially funded.	1. ECI to process application to NGRID for certain locations. Focus on HES #2/TBS. 2. Issue latest plan.
3. Support community efforts to install chargers on non-Town property.	Based on above plan.	

⑤ Green Community Program

Goal – Meet Obligations and Maximize Grants

- Existing Program and Grants

Action	Status	Next Step
1. Submit final report for Spring 2021 Grant Round.	Completed < 9/2.	Address pending DOER comments by 9/30
2. Prepare application w/MRPC and submit to DOER by Oct 3 for 2022 Block 2 Competitive grant.	Working on list of projects.	Obtain quotes needed for projects. Decide if wait for 2023 Block 1. Max grant issue.
3. Update Energy Use Data and submit Annual Report by Nov 4.	Updating data.	Obtain report template and prepare updates.

- Prepare for Climate Leaders Program

Action	Status	Next Step
1. Specialized MA Stretch Building Code –Adopt in 2023.	No work yet.	Determine path forward. Create plan by Dec 2022.
2. Hire Municipal clean energy coordinator.	No work yet.	Define role and plan by Jun 2023. Evaluate options – shared or dedicated.

⑥ Renewable Electricity – Solar Photovoltaic Systems

Goal – Convert all electricity to 100% renewable sources.

- Solar PV – Install 3 systems on town owned property and commission by 2025.

Action	Status	Next Step
1. SB Green Initiative Goal 1) Utilize the capital fund for at least one solar PV project on a town-owned building	Two buildings identified - New COA (likely PPA) and Public Safety (likely direct purchase)	1. COA - PBC subcommittee. 2. Public Safety – Determine Lead group.
2. SB Green Initiative Goal 2) Meet with HEAC on the status of their investigation into a municipal solar panel field to generate revenues	Solect confirmed Stow Road gravel pit good for solar PV.	Obtain PPA proposal from Solect. Also part of Revenue Ideation committee.
3. Evaluate solar PV feasibility of remaining property. Hire 3rd Party?	Informal evaluation of several sites done.	Discuss need for 3rd party quote for Town evaluation.

- Battery Storage – Install 2 battery storage systems and commission by 2025

Action	Status	Next Step
1. Add to HES PV system and evaluate others.	No work yet.	1. Establish project scope and owner.

⑦ Renewable Electricity – Energy Supply

Goal – Convert all electricity to 100% renewable sources.

- Residential Electricity Supply – Community Choice Aggregation

Action	Status	Next Step
1. Town Procurement finalize 100% renewable supply as default option starting Nov 2022.	Town selected one year term expires Nov 2023.	DOER Climate Leaders program specifies 100% Class 1 Renewable option. Include for renewal in Q3 2023.
2. Support rollout of new electricity supply program.	HEAC ready to support.	

- Municipal Electricity Supply

Action	Status	Next Step
1. For next term, DOER Climate Leaders program requires at least 2X the minimum RPS Class 1 Renewable supply.	Term expires Dec 2024	Town Procurement to include 100% or 2X min RPS Class 1 (per DOER CL) during renewal in Q3 2024.

⑧ Streetlights – Replace with LED Fixtures

Goal – NGRID program to replace Streetlights with LED Fixtures

- Details – 44 lights eligible, Save ~$1600 per year, One Time rebate $3400

Action	Status	Next Step
1. Town Approval	Select Board approved 2/2/21	NA
2. Review with Historical Commission	Completed Jan-Mar 2022; Requested warmer light	Need final approval
3. NGRID install warmer light test fixture	Installed in wrong location	NGRID to replace with lower watt fixture in original location. Escalated @ NGRID 8/30
4. Review Fairbanks Street neighbor concerns	Reviewed at 3 HEAC meetings. Too bright.	Pending replacement test fixture
5. Release NGRID to replace fixtures	Pending above.	