

Town of Harvard Energy Advisory Committee

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

ASSOCIATE MEMBERS:
STUDENT MEMBER:
LIAISONS:

OPEN
OPEN
KARA MINAR, SELECT BOARD
SUSANMARY REDINGER, SCHOOL COMMITTEE
SHARLENE CRONIN, CAPITAL PLANNING
TBD, FINANCE COMMITTEE
GUY HERMANN, PERMANENT BUILDING COMMITTEE

Meeting Minutes 1/11/23

Attendees: B. Smith, D. Fay, F. Hodgkins, P. Kelly-Joseph, E. Sachs Leicher

Location: This Meeting was held virtually in accordance with Chapter 20 of the Acts of 2021, An Act Relative to Extending Certain COVID-19 Measures Adopted During the State of Emergency and signed into law on June 16, 2021
Zoom Meeting ID: 825 8234 9213

Admin 1. HEAC approved the minutes of 12/14/22 5-0 with comment.

1	Goal: Decarbonization Plan – Reduce Emissions	Lead: Brian	Support: Ellen
	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. 1. Waiting for John Snell implementation roadmap input. 2. Stakeholder meeting – Brian set up with Town/Schools. 3. Align with Climate Plan being finalized (SB 9/20) by end Sept. HCIC SB 9/20 meeting went well. The Climate Plan draft report is being released this week and then to be sent to the Select Board in Nov. David suggest that we have a focus on zero net energy buildings HEAC review Implementation Plan and provide comments by 11/16. Goal is to align with Climate plan. Goal to review final plan and identify steps to issue at Dec HEAC meeting. Climate Plan approved 12/6 by Select Board. Brian to take John Snell's input and review against Climate Plan. Ellen and Brian to engage with stakeholder committees on the Energy and Building modules on the implementation plan. Brian to finalize; Ellen to help.
	3. Community Decarbonization plan – finalize by Nov 2022.	Initial review by key personnel complete	Perform detailed review by HEAC, HCIC and other community stakeholders. – 1. Brian have John Snell revise plan with HEAC comments. 2. Align with Climate Plan by end Sept. Goal to review final plan and identify steps to issue at Dec HEAC meeting. Climate Plan approved 12/6. Brian to take John Snell's input and review against Climate Plan.

Town of Harvard Energy Advisory Committee

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

ASSOCIATE MEMBERS:
STUDENT MEMBER:
LIAISONS:

OPEN
OPEN
KARA MINAR, SELECT BOARD
SUSANMARY REDINGER, SCHOOL COMMITTEE
SHARLENE CRONIN, CAPITAL PLANNING
TBD, FINANCE COMMITTEE
GUY HERMANN, PERMANENT BUILDING COMMITTEE

Meeting Minutes 1/11/23

2	Goal: Buildings – Electrification Plan; Assessment / Energy Reduction Projects	Lead: Forrest	Support: Brian/David
	Action	Status	Next Step
	1. Develop a detailed long-range plan for strategic building electrification, with financial analysis, to upgrade municipal building heating systems.	Not started.	<p>Develop and issue RFP by Nov 2022.</p> <ul style="list-style-type: none"> a. Brian ask John Snell about grant for RFP. b. Forrest ask DOER about Technical Assistance grant. c. Investigate MVP grant. <p>Obtain funding and target plan by Sep 2023.</p> <p>We are working with NGRID to have an Electrification Assessment performed by B2Q (via NGRID) at no charge. KOM was held with B2Q and NGRID. The goal is to apply for a DOER technical assessment grant by the deadline of Nov 18. The focus will be to replace the heating system which is the biggest source of emissions.</p> <p>Building Electrification plan – goal to eliminate fossil fuels for space heating. Focus TBS, Town Hall and Public Safety building.</p> <p>Bromfield - site review by B2Q 11/15 9 am. Working on a proposed scope of work to apply for DOER technical assistance grant – next step to review the B2Q study output. Forrest arranged B2Q audit walk through of Bromfield.</p> <p>Draft report to NGRID in Jan 2023. Reviewing several scenarios for heat pumps.</p> <p>David and Forrest met with UMASS Amherst professor Lauren Mattison to request assistance – currently on wait list for Feb 2024. Plan to set up a meeting with Patrick Harrigan and UMASS about the Bromfield plan.</p> <p>Separate study is being arranged for Bromfield – suggest one RTU scheduled for replacements – propose change to independent heat pump. – Forrest reviewed with Patrick, no immediate need for an RTU. Issue Closed</p>
	2. Define objective of audits – electrification vs. efficiency.	In progress.	<p>1. Coordinate with TBS building study. – Forrest find out the need from Marie for what types of audits are needed to satisfy WWTP grant requirement.</p> <p>Open issue</p> <p>World Energy (also funded by National Grid) – walk through assessment of Public Safety and Town Hall planned for 12/5. Forrest arranged World Energy audit walkthrough of Town</p>

Town of Harvard Energy Advisory Committee

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

ASSOCIATE MEMBERS:
STUDENT MEMBER:
LIAISONS:

OPEN
OPEN
KARA MINAR, SELECT BOARD
SUSANMARY REDINGER, SCHOOL COMMITTEE
SHARLENE CRONIN, CAPITAL PLANNING
TBD, FINANCE COMMITTEE
GUY HERMANN, PERMANENT BUILDING COMMITTEE

Meeting Minutes 1/11/23

			<p>Hall (in Jan) and Public Safety building (complete – advocating for supplemental heat pumps). World Energy is focusing on reducing and not eliminating fossil fuel use.</p> <p>Public Safety building – no report is going to be provided.</p> <p>Town Hall – World Energy audited the building on 1/9; they will issue a proposal for air source heat pumps on the first floor and VRF on the second floor.</p> <p>Bromfield House – call Mass Save with electric account if insulation is a concern.</p>
--	--	--	---

3	Vehicles – Convert to Electric Vehicles	Lead: Peter	Support: Forrest
	Action	Status	Next Step
	1. Prepare Town Vehicle Inventory. Coordinate with NGRID Fleet Advisory program consultant.	Inventory complete. Report and implementation plan in process.	<p>1. Review Fleet Electrification report and recommendations. Review with Town Staff by Oct 2022. – Draft report being reviewed.</p> <p>The ICF study will be used as a reference. Remove this item.</p> <p>2. Discuss info gap about vehicle use, miles, lifecycle cost, etc. –</p> <p>a. Ford Hybrid Interceptor – wait until Feb</p> <p>b. CPIC – electric vehicle for future; wait until IRA incentives</p> <p>c. School \$15k electric vehicles – to replace existing COA vans; Ford E350 – replace existing vehicles for attrition. Replace CASE older vans. Typically have 2 consistently. Evaluate IRA option. Aligned with Fleet Electrification plans. CPIC will evaluate. Fully support.</p>
	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 Tim Bragan and town staff to select vehicles. Plug in Hybrid retrofits available for medium duty trucks. Peter requested Dept heads to identify vehicle replacement candidates. Initially Police and recently Fire Chief is interested in hybrid option.

Town of Harvard Energy Advisory Committee

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

ASSOCIATE MEMBERS:
STUDENT MEMBER:
LIAISONS:

OPEN
OPEN
KARA MINAR, SELECT BOARD
SUSANMARY REDINGER, SCHOOL COMMITTEE
SHARLENE CRONIN, CAPITAL PLANNING
TBD, FINANCE COMMITTEE
GUY HERMANN, PERMANENT BUILDING COMMITTEE

Meeting Minutes 1/11/23

4	Vehicles – Charging Stations	Lead: Brian	Support: Peter
	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. - Brian ask ECI 2. Determine if build-out (or any) 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. Any data on usage? 2. Brian to issue latest plan. 3. HES #2 – more used by public. Concerned about the use by public. Concerned about time limits. Obtain HES use data. 4. Bromfield Level 2 Charger in back priority. School committee suggest installing one charger at Bromfield. 5. DPW – any need for EV charger ready.

5	Green Community Program – Meet Obligations and Maximize Grants	Lead: Brian	Support: Forrest/David
	Action	Status	Next Step
	1. Prepare application w/MRPC and submit to DOER by Oct 3 for 2022 Block 2 Competitive grant.	Working on list of projects.	Library Weatherization Phase 2 and Vehicle Police Hybrid were the only 2 items on the application. 1/3/23 – DOER awarded GC Grant for \$10,000 for hybrid car and \$17,173 for Library Weatherization.
	Fall 2023 Block 2 Grant project ideas		1. Bromfield pilot classroom project – Univent? 2. Vehicles – EV and Hybrid; Peter will reach out to Tim Bragan to determine if there are any planned purchases that can take advantage of a green community grant to be applied to a future purchase in Feb 2024.
	2. Specialized MA Stretch Building Code –Adopt in 2023.	No work yet.	Determine path forward. Create plan by Dec 2022. Goal to bring to Town Meeting for Spring 2023. DOER issued revised Specialized Stretch Building Code for public comment. Focus is on net zero buildings.

Town of Harvard Energy Advisory Committee

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

ASSOCIATE MEMBERS:
STUDENT MEMBER:
LIAISONS:

OPEN
OPEN
KARA MINAR, SELECT BOARD
SUSANMARY REDINGER, SCHOOL COMMITTEE
SHARLENE CRONIN, CAPITAL PLANNING
TBD, FINANCE COMMITTEE
GUY HERMANN, PERMANENT BUILDING COMMITTEE

Meeting Minutes 1/11/23

			<u>Plan of action</u> <ol style="list-style-type: none">1. Plan for warrant Fall 2023.2. Existing stretch code is also upgraded and that helps qualify for grants?3. Invite ICF rep to a future meeting to discuss details of the new Specialized Code.
	3. Hire Municipal clean energy coordinator. (e.g., Sustainability Coordinator, Energy Manager)	No work yet.	Define role and plan by Jun 2023. Evaluate options – shared or dedicated. - Ellen sent Draft Sustainability Job Description sent to HEAC for review. – Description, Brian to review and plan to submit for Town budget; combine with a grant writer position. – On Hold due to budget concerns.

Town of Harvard Energy Advisory Committee

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

ASSOCIATE MEMBERS:
STUDENT MEMBER:
LIAISONS:

OPEN
OPEN
KARA MINAR, SELECT BOARD
SUSANMARY REDINGER, SCHOOL COMMITTEE
SHARLENE CRONIN, CAPITAL PLANNING
TBD, FINANCE COMMITTEE
GUY HERMANN, PERMANENT BUILDING COMMITTEE

Meeting Minutes 1/11/23

6	Renewable Electricity – Solar Photovoltaic Systems	Lead: David	Support: Brian
	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)	<p>COA; PBC working with Energy Sage as a PV system broker. Need a commitment from the Town. Working to determine the electric demand. IRA direct 30% ITC makes direct purchase more attractive.</p> <p>Public Safety – Determine Lead group. – Charles Oliver is putting in a capital request for this direct purchase.</p> <ol style="list-style-type: none"> 1. PV System on Public Safety building pending IRA incentives. – Is this a CPIC project? 2. David working on a conceptual strategy to be formalized. 3. Reviewed Bromfield with Patrick Harrigan – new roof planned within 5 years. Canopies are not ideal. There have been concerns about some roof areas. Next Step – find out roof timing. – Request details from SusanMary. Will need a study to evaluate concerns. SusanMary will review with School Committee. 4. COA Building – HEAC position is to maximize solar installation. This conflicts with some on the PBC. Need a plan for excess. – PBC waiting for a response from CPIC. 5. Solar PV Strategy – HEAC reviewed David’s draft document and provided comments to be reviewed and formalized – see attached. – the strategy is revised and David will send around for further review. Brian and David to review with Kara Minar. 6. New Field Complex – consider if there are any opportunities to add solar PV.
	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. – Pending Also part of Revenue Ideation committee. Solect has assigned a new replacement for Steve Clairmont, Byron Woodman. David reviewing with Kara to highlight this project on the Revenue committee.
	3. Evaluate solar PV feasibility of remaining property. Hire 3 rd Party?	Informal evaluation of several sites done.	Discuss need for 3 rd party quote for Town evaluation. – Kara has list of possible sites. On Hold

Town of Harvard Energy Advisory Committee

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

ASSOCIATE MEMBERS:
STUDENT MEMBER:
LIAISONS:

OPEN
OPEN
KARA MINAR, SELECT BOARD
SUSANMARY REDINGER, SCHOOL COMMITTEE
SHARLENE CRONIN, CAPITAL PLANNING
TBD, FINANCE COMMITTEE
GUY HERMANN, PERMANENT BUILDING COMMITTEE

Meeting Minutes 1/11/23

	Battery Storage - Add to HES PV system and evaluate others; evaluate funding source.	No work yet.	1. Establish project scope and owner. – Brian obtain assistance to justify project. David identified the demand charges to be understood to justify the project (>\$15/kW). Bill issue with actual readings and net metering credits still being resolved with NGRID.
	Landfill Solar		Based on a recent Select Board meeting, the State notified the Town to consider ways to meet regulations about closing of the landfill; this could be an opportunity to propose a solar landfill project.
7	Renewable Electricity – Energy Supply	Lead: Ellen	Support: David
	Action	Status	Next Step
	1. Town Procurement finalize 100% renewable supply as default option starting Nov 2022.	Completed 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.	Completed (26/13 cents 6 months each)	
	Net Metering Credit Purchase Agreements	Multiple offers (3) have been received due to the number of recent interconnection of dormant projects. Std Offer is 10%; 20 year contracts.	1. Existing Athol array \$75k at 20% discount. 2. Advise Town Procurement on a max NMC appetite \$300k (~kWh). Max credits shall be less than the total electric consumption. Negotiate more than 10% which is \$30k of the \$300k. Prefer a company that we have experience Oak Partners. The above recommendation will be provided by David Fay to Marie Sobalvarro to meet with the available companies. Require a cancellation clause. Voted 4-0 to make the above recommendation. – On Hold pending Select Board endorsement of Solar PV Strategy.
8	Streetlights – Replace with LED Fixtures	David	Brian
	Action	Status	Next Step
	2. Review with Historical Commission	Completed Jan-Mar 2022; Requested warmer light	Need final approval

Town of Harvard Energy Advisory Committee

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

ASSOCIATE MEMBERS:
STUDENT MEMBER:
LIAISONS:

OPEN
OPEN
KARA MINAR, SELECT BOARD
SUSANMARY REDINGER, SCHOOL COMMITTEE
SHARLENE CRONIN, CAPITAL PLANNING
TBD, FINANCE COMMITTEE
GUY HERMANN, PERMANENT BUILDING COMMITTEE

Meeting Minutes 1/11/23

	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; 9/14 request submitted internally at NGRID to perform the work and is being escalated. In NGRID queue to replace the test lamp. 12/14 – work order for expedited fixture replacement in process per NGRID. 1/11/23 – Lower watt fixtures received in the NGRID warehouse to be installed this week.
	Membership	No update.	
		Meeting adjourned 9:25 pm (voted 5-0).	
	Future Meetings	2023: Jan 11, Feb 8, Mar 8, Apr 12 HEAC Meeting Location/Time: 8 pm. – Virtual until further notice	

Other Items

1. WWTP leach field PV system. Tighe and Bond – David to ask Tim Bragan why it is a good application for solar PV. – **Close - no response from Tim Bragan.**
2. HES Electric Bill Reconciliation – David working with NGRID to obtain answers. – **NGRID is recalculating all the bills to resolve the Net metering credits and the supplier.**
3. Bromfield Science Fair – Mar 3. Grades 8-12. Forrest is looking for co-HEAC judges.