

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 4/19/23

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

Location: **This Meeting was held virtually in accordance with Chapter 2 of the Acts of 2023, An Act Making Appropriations for the Fiscal Year 2023 to Provide for Supplementing Certain Existing Appropriations and for Certain Other Activities and Projects, and signed into law on March 29, 2023**

Zoom Meeting ID: **843 2590 2315**

Admin 1. HEAC approved the minutes of 3/8 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. Pending 2/8 – John Snell has 50 hours remaining and need to be complete by end of April. Scope of work remaining is to assist with the implementation of the Bromfield electrification plan and identify the grant opportunities (such as Renew America Schools program). – Pending review of the B2Q heat pump recommendations. 4. David provided the Acton Electrification roadmap for review.	

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 4/19/23

	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 and Ellen’s comments. - Pending
--	---	--	--

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. Parallel tracks	Not started.	Develop and issue RFP by Nov 2022. a. Brian ask John Snell about grant for RFP. b. Forrest ask DOER about Technical Assistance grant. c. Investigate MVP grant. Obtain funding and target plan by Sep 2023. 1. 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. 2/8 - B2Q Draft report provided 3 options: (1) Air to Air VRF Heat Pump System (adds cooling) (2) Air to Water Heat Pump System (3) Water Source Geothermal Heat Pump System 2. HEAC integrated all comments on the B2Q report (including School Committee). B2Q responded to all comments and revised the report. There were some changes to the economics. Forrest prepared a list of pros/cons for review at a meeting with Schools (Linda Dwight, Patrick Harrigan and SusanMary Redinger. The purpose of the meeting is to select an option to proceed with a detailed design. 3. Building Electrification plan – goal to eliminate fossil

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 4/19/23

			<p>fuels for space heating. Focus TBS, Town Hall and Public Safety building.</p> <p>4. Bromfield RTU replacement – School Committee submitted a plan for \$3M to replace a large number of units. – Determine status.</p>
	2. Define objective of audits – electrification vs. efficiency.	In progress.	1. Coordinate with TBS building study.

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 – in process</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.	

4	Vehicles – Charging Stations	Lead: Brian	Support: Peter
---	------------------------------	-------------	----------------

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 4/19/23

	1. Create Charger Plan for Town use on Town property.	Feasibility reviews performed by ECI. Chargers are only partially funded if not public use.	Focus on Public Safety Building. 1. Obtain quote for Fast charger from ECI for police cruisers. – ECI to schedule a site visit and prepare a proposal. Can the new transformer supply multiple chargers? – Brian to set deadline for ECI proposal. 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. Priority - Bromfield Level 2 Charger in back. School committee suggest installing one charger at Bromfield. Brian to set deadline for ECI proposal. (Height of charger at HES is ADA issue – SusanMary provided a recent ADA report highlighting the issue).

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. 4/19 – Goal - Library project to be done end May and close grant end of June.
	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. <u>Plan of action</u> 1. Plan for warrant Fall 2023. 2. Ellen is arranging to speak with the Sustainability

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 4/19/23

			<p>Coordinator for the Town of Weston (Julie Gagen) regarding the Optional Stretch Code and implementation. The goal is set up a presentation for key Town Committees. – Ellen and Brian reviewed the plan with Julie Gagen and determined it would be helpful arrange an introduction meeting with other committees in Town.</p> <ol style="list-style-type: none"> Existing stretch code is also upgraded and that helps qualify for grants? Invite ICF rep to a future meeting to discuss details of the new Specialized Code. Ellen is setting up someone to come to a future meeting to explain the Specialized code and suggest a path forward.
	3. Hire Municipal clean energy coordinator. (e.g., Sustainability Coordinator, Energy Manager)	No work yet.	<p>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.</p>
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. Town Meeting article for \$170k for direct purchase.</p> <p>Public Safety – Determine Lead group. – Charles Oliver is putting in a capital request for this direct purchase. CPIC puts a hold on this project until the roof is replaced.</p> <ol style="list-style-type: none"> 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. COA Building – HEAC position is to maximize solar installation. This conflicts with some on the PBC. Need a

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 4/19/23

			<p>plan for excess. – PBC waiting for a response from CPIC. \$170k is proposed by PBC to CPIC for half the roof.</p> <p>3. 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. pending</p> <p>4. New Field Complex – consider if there are any opportunities to add solar PV.</p>
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.	<p>1. 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.</p> <p>2. Landfill Solar PV – DEP will require the Town to follow landfill closure requirements which requires monitoring wells. Forrest suggested that the cost of closure could be rolled into a Solar PV PPA. David will contact Solect and Tighe and Bond (via Tim Bragan) to determine if this is possible.</p>	
3. Prepare overall solar PV strategy.		<p>1. David revise strategy document to make a recommendation. Incorporate decisions for ownership model – when to buy vs PPA. Include plans for all viable systems for planning use by Town/CPIC. Include percentages for electric allocation from solar PV/ net metering credits and plan for future usage.</p> <p>2. Brian prepare draft presentation for review with the Select Board</p> <p>3. Determine requirements for new buildings such as DPW and Fire Station.</p>	
4. 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	
5. 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.	
7	Renewable Electricity – Energy Supply	Lead: Ellen	Support: David

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 4/19/23

	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.	<ol style="list-style-type: none"> Existing Athol array \$75k at 20% discount. 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
	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. 2/9/23 – no update. 3/8/23 – no update. 4/19 – no update – referring issue to the new NGRID Community Manager.
	Membership	HEAC recommendations for any new members due by May 1. Guy Hermann expressed interest in becoming an Associate member. Brian to invite	

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 4/19/23

		him to the next meeting to document recommendation to the Select Board by 5/16 meeting.
		Meeting adjourned 9:30 pm (voted 5-0).
	Future Meetings	2023: May 10, Jun 14, Jul 12, Aug 9 HEAC Meeting Location/Time: 8 pm. – Virtual until further notice

Other Items

1. 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. – 4/19 – Finally the electric bills have been completely reconciled and fixed.
2. Earth Day – HCIC needs help to coordinate activities on April 22.