



**LEBANON ENERGY ADVISORY COMMITTEE (LEAC)
AUGUST 17, 2023 - 4:00 PM
COUNCIL CHAMBERS, CITY HALL OR
REMOTE VIA VIRTUAL PLATFORM
LEBANONNH.GOV/LIVE**

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- 1. Call to Order**
 - 2. Approval of Minutes**
 - A. July 20, 2023
 - 3. Old Business**
 - A. Legislation/PUC Regulations/CPCNH/LCP updates
 - B. Landfill Gas to Energy Updates
 - C. Municipal Solar Updates
 - D. Charging and Fueling Infrastructure (CFI) Grant application
 - E. Report on Rental Decarbonization Pilot/Weatherization
 - F. SHARC Energy wastewater heat recovery
 - 4. New Business**
 - A. EV Subcommittee Report
 - B. EV Motion: EV-friendly Employers Proclamation
 - C. Recent and Upcoming Conferences or Webinars of Note
 - D. EFM Report
 - 5. Open to the Public**
 - 6. Future Agenda Items**
 - 7. Adjournment**

Meetings are open for in-person and remote attendance. Members of the public that wish to attend remotely may do so by going to LebanonNH.gov/Live where you will find instructions on how to enter the meeting. Members of the public will be able to participate and ask questions through the City's virtual platform or by phone. Please note: Should technical difficulties occur during the meeting that disrupts virtual or phone connection(s), the meeting will continue without remote access capabilities.

AGENDA
LEBANON ENERGY ADVISORY COMMITTEE(LEAC)
August 17, 2023

AGENDA ITEM 2
APPROVAL OF MINUTES:

JULY 20, 2023

**LEBANON ENERGY ADVISORY COMMITTEE
CITY HALL MEETING ROOM OR
REMOTE VIA VIRTUAL PLATFORM
4:00PM, THURSDAY JULY 20, 2023**

MEMBERS PRESENT: Greg Ames (Chair), Jon Chaffee (Vice Chair), Woody Rothe, Clifton Below (City Council Rep.), Sherry Boschert REMOTE, James Mashal, Henry Bromberg (alt)

MEMBERS ABSENT: Devin Wilkie (Alt. Council Rep), Meghan Butts (alt)

STAFF PRESENT: Tad Montgomery (Energy & Facilities Manager)

1. CALL TO ORDER

Chair Ames called the meeting to order at 4:08pm.

Chair Ames approved the appointment of Henry Bromberg to sit in for the Planning Board representative.

Ms. Boschert said she is attending remotely because a family member may have COVID.

2. APPROVAL OF MINUTES – June 15, 2023

A MOTION was made by Mr. Mashal to approve the June 15, 2023 Meeting Minutes as presented. The Motion was seconded by Mr. Chaffee.

** The Vote on the Motion was approved by roll call vote: Mashal: aye; Boschert: aye; Rothe: aye; Chaffee: aye; Bromberg: aye; Ames: aye (6-0 with Below abstaining from the vote).*

3. OLD BUSINESS

A. Legislation/PUC Regulations/CPCNH Updates

Mr. Below gave an update from the latest Legislative session. He said several controversial bills were discussed. He said as a compromise, the bills were combined into one. He said one outcome was that the energy planning statute was repealed. He said other changes impacted the site evaluation committee. He said another outcome was that net metering for municipalities in the 1–5-megawatt range was expanded if the municipalities could combine their net metering activity (for municipal purposes and school districts). He said many felt the negatives outweighed the positives, but the combined bill did pass in the Senate and committee conference.

He said there is a new net metering proposal at the PUC and utilities are going to be proposing new metering terms within a month or so. He said by next spring/summer, there will probably be new net metering terms going forward. He said it may be possible that smaller projects (under five megawatts) may be allowed if the PUC / state jurisdiction issue is decided.

1
2 He said an interesting situation related to these smaller projects arises from the fact that
3 the Department of Energy completed an update to its Value of Distributed Energy
4 Resource (DER) study, which was not included in the previous metering proceedings
5 that started in 2016. He said the study's results indicated that there's more value in
6 using DERs as load reducers at the state jurisdiction than under the PUC. He said, as a
7 result, the CPCH may have opportunities to use the data from the study and the
8 projected new net metering terms to pursue new smaller net metering projects.
9

10 **B. Landfill Gas to Energy Updates**

11 Mr. Montgomery said he spoke with the bond bank broker regarding help with federal
12 investment tax credits ITC for the project. He said the bank is more than willing to
13 complete the paperwork to apply for the tax credits. He said he also spoke with the
14 engineering firm working on the natural gas project and they are also willing to help. He
15 said the firm agreed to document all the costs eligible for the tax credit. He said he
16 submitted this information in a report to the City Manager and several other City DPW
17 staff.
18

19 He said the engineering firm also did a preliminary analysis of what it would take to
20 install EC fast chargers for EV charging and he said it would be a fairly simple project.
21 The group discussed how these fast chargers might be used in the City.
22

23 Mr. Montgomery also said the City is in the process of buying and installing very large
24 back-up generators for the DPW garage and Administration building. He said he has
25 recommended that the City use back-up EV charging at the landfill instead because of
26 the amount of resources needed to purchase and use very large generators.
27

28 **C. Municipal Solar Updates**

29 Mr. Montgomery said the Phase 3 Solar project is on hold.
30

31 **D. Charging and Fueling Infrastructure (CFI) Grant Application**

32 No update
33

34 **E. Report on Rental Decarbonization Pilot/Weatherization**

35 Mr. Chaffee said he and other LEAC members spoke with a Peterborough team that is
36 working on an EEEGC grant with Block Power, which is a national weatherization and
37 heat pump-installing company. He said the team is conducting a pilot with Block Power
38 to install heat pumps in 10-15 buildings. He said it might be a model that CPCNH could
39 use for low-income housing. He also said that he and Mr. Rothe have been working
40 with Listen to develop a survey to assess the utility burden for low-income residents. He
41 said they are planning to "test drive" the survey at the Farmer's Market and Listen Food
42 Shelter in August and further develop a more comprehensive survey by the fall of 2023.
43

44 **4. NEW BUSINESS**

45 Chair Ames said he'd like to change the order of the agenda items under NEW BUSINESS.
46

C. Committee Membership Updates

Chair Ames welcomed the new members to the LEAC: Mr. Henry Bromberg as an alternate member and Mr. James Mashal as a regular member.

Chair Ames said he will not be renewing his membership with the LEAC next term. Mr. Below said the LEAC will need to elect a new chair and designate a new LEAC representative on the CPCNH. Mr. Mashal said he would be interested in being the LEAC representative to the CPCNH.

A. SHARC Energy Wastewater Heat Recovery

Mr. Montgomery said he shared information from the SHARC presentation with Deputy City Operations Manager Nik Coates, who asked LEAC to continue to do research on this kind of wastewater treatment equipment and whether it would be a good fit as a provider of heat/energy for downtown facilities, such as the new fire station.

Ms. Boschert and Mr. Bromberg said they'd be willing to continue to work on collecting data related to this project. Mr. Bromberg said there will be a SHARC presentation in White River Junction, VT this week and he said he is willing to attend. He said he could possibly ask the representative to speak with DPW staff and LEAC members about the viability for specific projects site in Lebanon.

Mr. Montgomery said he would draft a formal request to the City that:

- LEAC recommends that the SHARC process and technology is worth further exploring; and
- An initial case study could be the DPW garage building; and
- LEAC will do an initial analysis of data related to that specific project; and
- If the proposal is viable, a detailed presentation could be made to staff

D. EV Subcommittee Report

Ms. Boschert said she learned about a program called Empower, which encourages employers to offer EV charging at work for employees. If employers are willing to make a soft commitment to offer EV charging, Empower will assist them through the process. She said NHDES is having a webinar on Tues to explain it. Ms. Boschert said the EV subcommittee will be reaching out to employers in the City to encourage them to join this effort.

She said Mr. Coates asked her to send him information about an EV car share program that she collected but did not use for the CFI grant proposal. Mr. Coates asked if Mr. Montgomery should be spending time on this. She said the EV subcommittee said it would be worthwhile if the City gets the CFI grant. She asked the LEAC members to send their opinions, if any, regarding whether this project was worth developing further, and she would share the consensus with Mr. Coates.

1 She said Jessica Stoll of the Electrification Coalition gave a presentation at the EV
2 subcommittee meeting to explain a proposed policy from the DOE and IRS that
3 government entities that qualify but do not pay taxes can still get tax credits as a check
4 (like a rebate) for energy-efficient items (such as EV chargers).

5
6 She said the EV subcommittee got approval to hold a National Drive Electric Week
7 event on September 30. She said the parking spaces in the upper lot directly behind City
8 Hall will be closed off from 8am – 4pm (publicly open for the event from 10am-3pm).
9 She asked that LEAC sponsor and be a lead organizer of the event, called the “Upper
10 Valley EV Expo.”

11
12 Ms. Boschert said she was going to send comments from LEAC on the City’s Fleet
13 Electrification Plan meeting. Chair Ames said he would get comments to her today.

14 15 **E. National Drive Electric Week Sponsorship**

16
17 *A MOTION was made by Ms. Boschert that the Lebanon Energy Advisory Committee*
18 *sponsor and be a lead organizer of the National Drive Electric Week event, called the*
19 *“Upper Valley EV Expo,” to be held on September 30, 2023. The Motion was*
20 *seconded by Mr. Mashal.*

21
22 ** The Vote on the Motion was approved by roll call vote: Mashal: aye; Boschert: aye;*
23 *Rothe: aye; Chaffee: aye; Bromberg: aye; Below: aye; Ames: aye (7-0).*

24 25 **F. Endorsement of Granite Sate Clean Fleet Grant for EV Street Sweepers**

26
27 Ms. Boschert said the EV subcommittee passed a motion recommending that LEAC
28 endorse the Granite Sate Clean Fleet Grant application by the City of Lebanon for one
29 or two electric street sweepers.

30
31 *A MOTION was made by Ms. Boschert that the Lebanon Energy Advisory Committee*
32 *endorses the Granite Sate Clean Fleet Grant Application by the City of Lebanon for*
33 *one (1) or two (2) Electric Street Sweepers.*

34
35 Mr. Montgomery said the City may purchase more than one or two electric street
36 sweepers. Ms. Boschert amended the motion as follows:

37
38 *A MOTION was made by Ms. Boschert that the Lebanon Energy Advisory Committee*
39 *endorses the Granite Sate Clean Fleet Grant Application by the City of Lebanon. The*
40 *Motion was seconded by Mr. Ames.*

41
42 ** The Vote on the Motion was approved by roll call vote: Mashal: aye; Boschert: aye;*
43 *Rothe: aye; Chaffee: aye; Bromberg: aye; Below: aye; Ames: aye (7-0).*

44
45 Mr. Mashal left the meeting at 6:04pm.

B. Solar Wall Technology

Mr. Montgomery said this had been a CIP project for some time but is not any longer because of the \$100,000 CIP limit. He said he is pursuing it as part of Phase 3 Solar project. He provided details about his proposal to add a solar thermal heat gauge to an existing brick wall on the roof of City Hall. He said the wall would serve dual purposes of generating heat and PV in the building in the winter and to cool the solar panels in the summer. He said, if constructed, it may qualify for the “Buy America Build America” tax credit. He said the project would have to be approved by the Heritage Commission if approved.

The group discussed potential projects that could be submitted for a Rural and Tribal Assistance Grant.

G. Recent and Upcoming Conferences or Webinars of Note

None

H. EFM Report

None

5. OPEN TO THE PUBLIC

None

6. FUTURE AGENDA ITEMS

None

7. ADJOURNMENT

A MOTION was made by Vice Chair Chaffee to adjourn the meeting at 6:17pm. The Motion was seconded by Mr. Rothe.

** The vote on the Motion was approved (6-0).*

The meeting was adjourned at 6:17pm.

Respectfully Submitted,
Paula Roux
Recording Secretary

AGENDA
LEBANON ENERGY ADVISORY COMMITTEE(LEAC)
August 17, 2023

AGENDA ITEM 3
OLD BUSINESS:

F. SHARC PROJECT INFO SHEET TEMPLATE



SHARC System

For best results, please fill in this Project Information Sheet as completely as possible.

Contact Information

Name:

Company:

Telephone:

Email:

Project Information

Project Name:

Location:

Developer:

MEP Design Engineer:

Architect:

Application (ie. Multi-Family Residential, Industrial Food Processing, District Energy, etc.)

Wastewater source:

Please specify Alternate (if applicable):

Available wastewater source flowrate (average): gpm

Desired Energy Transfer (please select unit):

Process loop flowrate: gpm

Process loop glycol mix (if applicable): %

Type of glycol (if applicable):

Desired redundancy:



Heat Exchanger Design Energy Transfer Parameters

Please fill in this section as completely as possible.

SHARC Systems can be used to recover or reject energy from a wastewater source, providing a heat source or heat sink depending on the load side application, wastewater source, or seasonality.

If considering domestic hot water heating, please fill in the “Winter Conditions” section on the next page.

Temperature unit:

Winter Conditions (typically Heating dominant):

Wastewater Temperature:

Entering:

Leaving:

Process Loop Temperature:

Entering:

Leaving:

Summer Conditions (typically Cooling dominant):

Wastewater Temperature:

Entering:

Leaving:

Process Loop Temperature

Entering:

Leaving:

Typical ΔT and approach values are:

10°F ΔT across either side of the heat exchanger

5°F approach temperature

Note any specific variations required (please note: maximum 3°F approach):

Please note what equipment the SHARC System will interact with, or provide an energy offset to (ie. Heat Pump, Chiller, Cooling Tower, Natural Gas/Propane Boiler, etc.), and their relative efficiencies:

Please note if there are any specific considerations regarding the wastewater source, ie. chemicals, pH, higher than normal solids content, excessive grit/sand, etc.



Additional notes:

AGENDA
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August 17, 2023

AGENDA ITEM 4
NEW BUSINESS:

B. EV-MOTION: EV- FRIENDLY EMPLOYERS PROCLAMATION

DRAFT Resolution Honoring EV-friendly Employers DRAFT

WHEREAS, the Lebanon Energy Advisory Committee is committed to promoting sustainable transportation options and reducing or eliminating greenhouse gas emission; and

WHEREAS,

Electric vehicles (EVs) [reduce emissions by at least two-thirds¹](https://afdc.energy.gov/vehicles/electric_emissions.html) compared with gasoline vehicles, even after accounting for emissions created by electricity production; and

WHEREAS,

EVs save drivers money compared with comparable gas vehicles thanks to greater efficiency, lower fuel costs, and minimal maintenance; and

WHEREAS,

The least expensive, safest, and most logical places to charge an EV are at home or at work, where vehicles typically sit for eight or more hours per day; and

WHEREAS,

Not everyone can charge at home – especially residents of multi-unit housing – which makes the availability of charging at work even more important; and

WHEREAS,

Being an EV-friendly employer can help with recruiting and retaining workers who want to drive EVs; and

WHEREAS,

- Dartmouth Health provides more than 20 EV charge ports for employees at three sites (Dartmouth Hitchcock Medical Center, the Heater Road Clinic, and Alice Peck Day Hospital), and
- Hypertherm provides at least seven charge ports at four of its buildings, and
- Adimab recently installed EV charging for employees, and
- Mascoma Bank offers employees an exceptionally low rate on loans to buy EVs, and
- Local car dealers including Nissan of Lebanon and Volkswagen of Lebanon provide EV charging for use by employees and others; and

WHEREAS, these employers serve as role models for forward-thinking employers throughout the Upper Valley,

NOW, THEREFORE, BE IT RESOLVED by the Lebanon Energy Advisory Committee that we, the members of the Lebanon Energy Advisory Committee, express our gratitude to Dartmouth Health, Hypertherm, Mascoma Bank, Adimab, Nissan of Lebanon, Volkswagen of Lebanon, and all other employers in Lebanon who make EV charging available to their employees or

¹ https://afdc.energy.gov/vehicles/electric_emissions.html

otherwise facilitate adoption of EVs by employees. We are grateful for their efforts to meet the needs of employees who drive EVs and to create a sustainable and greener future for our City.

ALSO, BE IT RESOLVED that the members of the Lebanon Energy Advisory Committee express our gratitude to employers elsewhere in the Upper Valley who may employ Lebanon residents and who make some EV charging or other EV-friendly policies available to employees, including:

In Hanover, N.H. – Dartmouth College;

In Enfield, N.H. – Montcalm Golf Club;

In Norwich, Vt. -- King Arthur Baking; Dan and Whit's General Store; Norwich Technologies; and Solaflect, and

In Hartford and White River Junction, Vt. -- The Town of Hartford; Twin Pines Housing Authority; the Main Street Museum; Mascoma Bank; Advance Transit; Key Chevrolet; White River Toyota; Upper Valley Honda; Jake's Queechee Market; the Hampton Inn of White River Junction, and the Gilman Office Center.

LASTLY, BE IT RESOLVED that the members of the Lebanon Energy Advisory Committee encourage other employers to take advantage of free assistance for installing workplace EV charging that is available through the federal EMPOWER program (Equitable Mobility Powering Opportunities for Workplace Electrification Readiness) by contacting EMPOWER at www.workplacecharging.com or Jessica.Wilcox@des.nh.gov.