



LEBANON ENERGY ADVISORY COMMITTEE (LEAC)
JANUARY 18, 2024 - 4:00 PM
COUNCIL CHAMBERS, CITY HALL OR
REMOTE VIA VIRTUAL PLATFORM
LEBANONNH.GOV/LIVE

1. Call to Order

2. Approval of Minutes

- A. December 21, 2023

3. Old Business

- A. Legislation/PUC Regulations/CPCNH/LCP updates; CPCNH Publicity Campaign
- B. Landfill Gas to Energy Project
- C. Municipal Solar (see attached 2023 Production Report)
- D. Rental Decarbonization Pilot Project (see draft Concept Paper)
- E. Water Energy Technology (SHARC) Heat Recovery: Visit to Lebanon Feb. 5 or 6
- F. EV Subcommittee Report: Drive Electric Earth Day Event; Public Charging Stations; Public Outreach/Education
- G. Lebanon Strategic Plan - Input from LEAC: The City Manager has asked LEAC and other City Committees for renewed input into the City's Strategic Plan. Description of the draft Plan for 2024-2027 can be found on the city website here:
<https://lebanonnh.gov/1633/Lebanon-Strategic-Plan>
This 2024-2027 Plan is based on previous work done and displayed online on a Miro Board that contains a list of action items that have been gathered by topic area over the last year and can be found at the link below.
LEAC members are encouraged to consult this Miro Board, especially the sections on Environment and Sustainability (green) and Transportation (yellow), and get comments, edits and suggested new Action Items to Tad ASAP:
<https://miro.com/app/board/uXjVOgBwfV8=/>
- H. City Master Plan - Energy Chapter Updated

4. New Business

- A. NHDES Climate Action Plan Listening Sessions - January 25th, 5:30-7:00pm, at the Claremont Savings Bank Community Center, 152 South Street in Claremont.
- B. Collaboration with Regional Organizations for Greater Focus and Impact
- C. LEAC Website

5. Energy & Facilities Manager Report

6. Open to the Public

7. Upcoming Events

- A. NHDES Climate Action Plan Listening Sessions - January 25th, 5:30-7:00PM, at the Claremont Savings Bank Community Center, 152 South Street in Claremont
- B. Upper Valley Earth Day EV Expo: April 21st, from 12:00-3:00PM, at the Shaws Parking Lot, West Lebanon (tentative)

8. Future Agenda Items

- A. Strategic Plan

9. 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)
January 18, 2024

AGENDA ITEM 2
APPROVAL OF MINUTES:

DECEMBER 21, 2023

DRAFT

**LEBANON ENERGY ADVISORY COMMITTEE
CITY COUNCIL CHAMBERS OR
REMOTE VIA VIRTUAL PLATFORM
4:00PM, THURSDAY DECEMBER 21, 2023**

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

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

STAFF ABSENT: Rick Brown, Assistant DPW Director

OTHERS PRESENT: Bill Stearns, Tom Benzel

1. CALL TO ORDER

Vice Chair Chaffee called the meeting to order at 4:27pm. Mr. Mashal said he was attending remotely because he is travelling.

A MOTION was made by James Mashal to nominate Henry Bromberg as Chair of the Lebanon Energy Advisory Committee. The Motion was seconded by Sherry Boschert.

** The Vote on the Motion was approved: (Roll Call: 5-0 - Mashal: aye; Rothe: aye; Below: aye; Boschert: aye; Chaffee: aye).*

2. APPROVAL OF MINUTES – November 16, 2023

A MOTION was made by Sherry Boschert to approve the November 16, 2023 Meeting Minutes as amended. The Motion was seconded by Woody Rothe.

Amendments: Page 3, Line 24-30: Change the bullet item to read: “Mr. Montgomery said Ms. Boschert attended a meeting of the Zoning Board of Adjustments to remind them that, if the ZBA grants a variance for the former Element Hotel to be converted into residential homes, Lebanon zoning regulations would require the installation of EV charging. The ZBA postponed discussion until the December meeting. Mr. Montgomery also said Ms. Boschert met with the Durham Town Council member regarding Lebanon zoning ordinance.”

Page 2 Line 22&23: Change “customers” to “suppliers”

Page 2 Line 34; Page 4 Line 30: Change “Roethe” to “Rothe”

Page 2 Line 38: Change “Electricity survey” to “Energy Survey”

** The Vote on the Motion was approved: (Roll Call: 5-0 - Mashal: aye; Rothe: aye; Below: aye; Boschert: aye; Chaffee: aye).*

3. OLD BUSINESS

A. Legislation/PUC Regulations/CPCNH Updates

Mr. Below said the CPCNH is going to recommend to the board, which is meeting next Thursday, to adopt the following rates, as of February 1, 2024:

Granite Basic Rate	8.1 cents/kilowatt*
Granite Plus Rate	8.4 cents/kilowatt*
Clean 50 Rate	9.4 cents/kilowatt*
Clean 100 Rate	12.4 cents/kilowatt

*Lower than Liberty Utilities' default service rate

He said they will have the lowest rates in the state for residential customers. He said Liberty's rates for medium and large commercial customers is dropping by about 19%.

He said membership continues to grow and will be up to 54 members as other communities join the Coalition. He said it will soon represent about 30% of the state's population.

He said he filed testimony on behalf of the Coalition in the last round of net metering dockets in this net metering and Liberty distribution rate case. He said they are also trying to be more engaged with the utilities and DOE on what changes are needed to enable us to serve net-metered customers.

He said the Regulatory and Legislative Affairs Committee meeting that day covered several House and Senate bills that have been introduced to recommend positions that the board could approve. He said the committee's discussion resulted in a unanimous set of recommendations.

Mr. Mashal asked if the LEAC needs to assign a new alternate to Mr. Below for the CPCNH Board to replace out-going Chair Greg Ames. He said he'd be glad to be the alternate but hopes that Mr. Below is never unable to serve on the Coalition Board. Mr. Below said alternate members can serve on committees, and they are trying to engage the more than 50 Board members to do committee work. Mr. Below said he would speak to Mr. Ames to determine if he wants to continue as an alternate, and, if not, he would submit the request to name Mr. Mashal as an alternate CPCNH Board member to the City Council.

B. Landfill Gas to Energy Updates

Mr. Below said his testimony in the net-metering case will enhance and open better options for the landfill gas to energy project. He said he's done a lot of analysis is the value that it produces in avoided transmission costs. He said the project adds between 1 ½ -2 cents/ kilowatt-hour to the value of that output. He said, if they are successful in the changes in net metering then Lebanon Community Power could be a direct offtaker of that power output and it could be used to offset the load within the City because it will produce more than the City needs to offset the balance of its load.

C. Municipal Solar Updates

Mr. Below said the RFP that Mr. Montgomery will work on will be informed in part by what evolves out of the net-metering case.

D. Rental Decarbonization/Utility Burden/Sustainability Fellow Update

Vice Chair Chaffee said he is pretty sure they will get a Sustainability Fellow from UNH. He said the Fellow would be transferring city records to the database supplied by the Department of Energy that would be an operating system that holds data about buildings, energy use, and the stages of weatherization and insulation. He said it could be the operating system for a weatherization program in Lebanon.

E. SHARC Energy Wastewater Heat Recovery

Vice Chair Chaffee said Mr. Montgomery had told him he was worried that this technology is not being taken seriously as a possible potential energy source for the new fire station. He said he's unsure if financial analysis about how expensive such a system would be compared to other types of heat has been completed. Chair Bromberg said the analysis has been done but has not been given to the City yet. He said he would follow up to provide more details to the City about the project.

F. City Master Plan-Energy Chapter Update

No update

4. NEW BUSINESS**A. EV Subcommittee Report****• Electric School Buses Proposal**

Ms. Boschert said she put out a call for people who want to be on the EV subcommittee and several people have said they are interested.

• EV Street Sweepers

Ms. Boschert said they were awarded a \$2.9 million grant to purchase electric street sweepers, and the City Council did allocate the matching funds in the budget, which were required for the grant. She said it includes the landfill gas-to-energy charger. She said she believes Lebanon is the first NH community to have electric street sweepers. Mr. Below said a large part of the grant funding is to enable the landfill gas-to-energy plant to island, meaning it can continue to operate if the grid goes down. He said the plant will have a Level 3 DC fast charger and can add Level 2 charging, which means that, during an extended power outage, the City would have a way to charge its electric vehicles. Ms. Boschert said Mr. Montgomery solicited letters of support from surrounding communities.

• Proposal to the Zoning Board of Adjustments Re: The request for a Variance at the Element Hotel

1 Ms. Boschert attended a meeting of the Zoning Board of Adjustments regarding a
2 request to convert the former Element Hotel into residential homes. She said the
3 hotel agreed to add EV Charging. She said the ZBA did not make a decision about
4 the variance and delayed it to its January meeting.

5
6 • **CFI Grant Status**

7 No update
8

9 • **Meeting with SAU 88 Superintendent about Electric School Buses**

10 Ms. Boschert said there has been no activity from the School Board about writing a
11 grant for funds for electric school buses. She said the deadline for the grant is the
12 end of January. She said she will reach out to City Councilor Karen Liot Hill, and
13 asked the Committee members to reach out to anyone they know who may be
14 associated with the School Board to urge them to respond.
15

16 Ms. Boschert said she heard Dartmouth College is converting its security fleet to Teslas.
17 She said it did go live with a dual tracker solar EV station with four charge ports.
18

19 She said, according to the City's registration data, the number of registered EVs and
20 plug-in hybrid registrations have increased by 70% compared to last year, and 278%
21 since 2016. She said this data amounts to 212 plug-in vehicles registered in the City. She
22 said Plug-In America has reported that consumers have purchased 1 million plug-in
23 vehicles in one year.
24

25 She said Rivian is building a fast-charging station at the Shaw's Plaza in West Lebanon,
26 which will include six fast chargers and two Level 2 chargers. She said she was told the
27 station should be completed by early 2024.
28

29 She said she is planning another Drive Electric Earth Day event in April. She said she is
30 considering asking Rivian to be a sponsor.
31

32 Ms. Boschert reviewed the process for becoming a voting member of the EV
33 Subcommittee. She said it is required that the members must be members of LEAC. She
34 said there are currently three or possibly four open seats (if the Planning Board
35 Representative seat is converted to a regular member seat) on LEAC.
36

37 The group discussed the idea of recommending to the City Council that the LEAC
38 Planning Board Representative seat be converted to a regular LEAC member seat. Chair
39 Bromberg said he'd like to speak to the Planning Board to see why no one has been
40 participating on the LEAC. He said he'd like to discuss this again at next month's
41 meeting.
42

43 **B. Report on UNH Sustainability Fellow for Summer 2024**

44 This item was discussed earlier in the meeting.
45

C. Discuss Possible Lebanon Electrification Pilot as Part of NHDES Climate Pollution Reduction Grant Application to EPA

Vice Chair Chaffee said he and Mr. Rothe met with NHDES, which said they could possibly include Lebanon in their grant application instead of Lebanon submitting a separate grant application. He said they're not sure what they're going to do and we need to continue to coordinate with them and promote the idea that a pilot in Lebanon would be beneficial to the whole state. He said the grant money would be used in the pilot in Lebanon for additional rebates. The grant funds could be replaced in Community Power communities by an adder on their community power. He said the biggest question would then be whether the adder would be "opt-in" or "opt-out". He said it also could be used for additional rebates as well. He said the biggest question, if Lebanon gets the grant, is whether the program would be an "opt-in" or "opt-out" program.

The group discussed how the CPCNH might provide funds to the City. Mr. Below explained that a discretionary adder is set by the City to modify energy rates.

D. Possible Publicity Campaign for Lebanon Community Power / CPCNH

Vice Chair Chaffee said CPCNH has saved customers more than \$1 million as of September 2023, and he said he believes that should receive some publicity. Mr. Below said, with the upcoming rate reduction, it might be a good time to promote the CPCNH. Ms. Boschert suggested a paragraph could be put out on a LebAlert or in the Thursday enewsletter. She said then it could go on the Upper Valley listserv and on Lebanon's Facebook page. She said she would work with Vice Chair Chaffee and Mr. Rothe to compose a message for a LebAlert after the first of the year. Mr. Below said the CPCNH is looking to fill a Communications Director position, who would be the person to promote such news. The group agreed to revisit the idea at the next meeting, after Vice Chair Chaffee and Mr. Rothe collect more data for the message.

E. LEAC Input into the NHDES Climate Action Planning Grant

Ms. Boschert said NHDES has been conducting listening sessions to get ideas to add to the state Climate Action Plan. She said they are looking for local climate action items. She urged members to put in requests if they have them. She said there have been some great general ideas, but they need more specifics.

F. Recent and Upcoming Conferences or Webinars of Note

None

5. OPEN TO THE PUBLIC

No members of the public were present.

6. FUTURE AGENDA ITEMS

1
2 **7. ADJOURNMENT**
3

4 *A MOTION was made by Sherry Boschert to adjourn the meeting at 5:43pm. The Motion*
5 *was seconded by Woody Rothe.*
6

7 ** The Vote on the Motion was approved: (Roll Call: 6-0 – Bromberg: aye; Mashal: aye;*
8 *Rothe: aye; Below: aye; Boschert: aye; Chaffee: aye).*
9

10 The meeting was adjourned at 5:43pm.

11
12 Respectfully Submitted,
13 Paula Roux
14 Recording Secretary

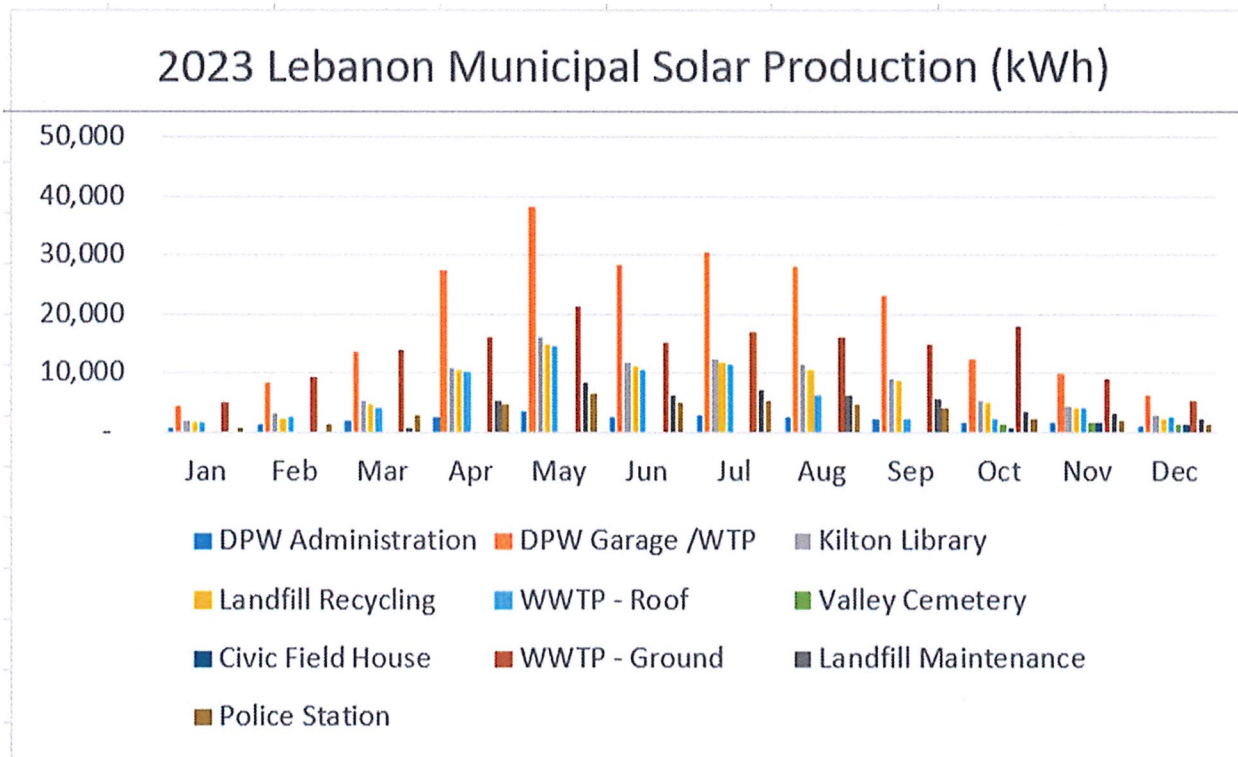
AGENDA
LEBANON ENERGY ADVISORY COMMITTEE(LEAC)
January 18, 2024

AGENDA ITEM 3
OLD BUSINESS:

3. MUNICIPAL SOLAR PRODUCTION REPORTS

2023 Lebanon Municipal Solar Production (kWh)

kWh	DPW Administration	DPW Garage /WTP	Kilton Library	Landfill Recycling	WWTP - Roof	Valley Cemetery	Civic Field House	WWTP - Ground	Landfill Maintenance	Police Station	WWTP - TOTAL	CITYWIDE MONTH TOTAL
Jan	726	4,423	1,866	1,445	1,643			5,047	-	595	6,689	15,745
Feb	1,385	8,436	2,998	2,208	2,339			9,220	-	1,300	11,559	27,885
Mar	1,891	13,553	5,103	4,599	3,873			13,750	536	2,931	17,623	46,235
Apr	2,580	27,471	10,861	10,481	10,201			16,110	5,142	4,552	26,311	87,398
May	3,403	38,220	15,932	14,867	14,438			21,302	8,424	6,524	35,739	123,109
Jun	2,475	28,316	11,809	11,149	10,633			15,105	6,270	4,850	25,738	90,607
Jul	2,720	30,382	12,402	11,857	11,327			16,820	7,000	5,140	28,147	97,648
Aug	2,568	27,915	11,254	10,550	6,283			16,176	6,130	4,730	22,459	85,606
Sep	2,296	23,233	8,942	8,633	2,189			14,738	5,450	3,900	16,927	69,381
Oct	1,460	12,410	5,260	4,850	2,110	1,310	636	17,790	3,260	2,310	19,900	51,396
Nov	1,500	9,910	4,320	3,910	3,920	1,659	1,490	8,844	3,200	1,875	12,764	40,628
Dec	971	6,280	2,670	2,290	2,590	1,300	1,220	5,280	2,200	1,100	7,870	25,900
TOTAL:	23,973	230,549	93,417	86,838	71,545	4,269	3,346	160,181	47,612	39,807	231,726	761,538



Note: Above is annual solar production for all City arrays in 2023 by month in table and chart form. The Valley Cemetery and Civic Fieldhouse arrays produced power from January through September but were not connected to the internet until October, so their production was not tracked through the City's online solar portal.

AGENDA
LEBANON ENERGY ADVISORY COMMITTEE(LEAC)
January 18, 2024

AGENDA ITEM 3
OLD BUSINESS:

4. RENTAL DECARBONIZATION PILOT PROJECT

Lebanon Housing Decarbonization Pilot Project

Lebanon Energy Advisory Committee

Draft Concept Paper, 1/16/2024

Application for an EPA Climate Pollution Reduction Grant
through the NH Department of Environmental Services

BACKGROUND

There is a total of \$4.6 billion available nationally for Climate Pollution Reduction Grant (CPRG) implementation, and grant applications will be evaluated by the U.S. EPA on a competitive basis. The New Hampshire Department of Environmental Services (NHDES) has received an EPA planning grant to develop a climate action plan for the state. The first product, a Priority Climate Action Plan (PCAP), is due March 1st, 2024, followed a year later by the Comprehensive Plan.

CPRG implementation proposals, which must reference the PCAP, are due to the EPA on April 1, 2024. NHDES intends to submit an implementation application and it seems likely that they will get at least some funding. Because building electrification was highlighted in the NHDES 2009 Climate Action Plan (“Maximize energy efficiency in buildings”, “projected high return on building efficiency” it is likely to be prominent in the 2024 plan and implementation application.

The Lebanon Energy Advisory Committee intends to coordinate with NHDES for them to submit a proposal for a residential building weatherization and electrification Pilot Program in Lebanon as part of their April 1, 2024 Climate Pollution Reduction Grant (CPRG) implementation application to EPA.

PROJECT DESCRIPTION

The EPA grant money would fund the Lebanon Pilot Project with enhanced rebates (in addition to and stacked with Federal tax credits and any State rebates) for robust energy audits, deep weatherization, and equipment. It would also fund the administration of the large scale Lebanon program and provide income dependent interest write-downs on the portion of costs financed by building owners. It will involve roughly one quarter of single-family and multi-family residences in the City. The Lebanon pilot has the potential for state-wide impact through the soon-to-be 50 municipalities in the Community Power Coalition network. These municipalities can raise funds to replicate the pilot by adding a small local action surcharge to their electricity bills.

In the five years of grant implementation (2024-2029) the Lebanon Pilot Project is projected to:

- Install 1900 heat pump hot water heaters that are managed to draw power primarily during off-peak times of the day using Time of Use electricity rates. This will be coordinated with Lebanon Community Power and Liberty Utilities as a pilot load management program.
- Perform 960 robust energy audits of single-family homes, multi-family homes, and rental units. Audit reports will contain a list of proposed measures with cost estimates and annual energy and dollar savings estimates for each measure.
- Weatherize 660 residences and Electrify them with air-to-air heat pumps for space heating.

This pilot project will work with and build the capacity of the Resilient Buildings Group to administer the program for entire communities at scale. This includes the development of a SEED data platform (Standard Energy Efficiency Data platform from the U.S. D.O.E.) that is capable of tracking energy upgrades to and the energy performance of every residence in the state.

PHASED IMPLEMENTATION

Heat Pump Water Heaters: The Lebanon program would proceed in phases, beginning with heat pump domestic hot water system installation. We see this technology as the least complicated, most easily marketed, most cost-effective electrification measure. It has the quickest payback period and can be accomplished with existing plumbing and electrical contractors.

Free Energy Audits: The second phase would be free home energy audits to quantify and market the savings possible from weatherization and air-to-air heat pumps for space heating. This would require considerable expansion of administrative capacity.

Weatherization and Heat Pump Installation: The third phase would include building weatherization and heat pumps retrofits, starting with a few the first year and ramping up. This program in Lebanon will engage nearly all the weatherization capacity in the state and in neighboring states. The promise of replication throughout the state will promote the expansion of capacity.

PRELIMINARY DATA GATHERING

Preliminary preparation for the Lebanon Building Decarbonization Program will start in the summer of 2024 with a University of New Hampshire Sustainability Fellow developing and populating the SEED program with City tax data and utility data for all 7000 residences to calculate a baseline greenhouse gas footprint. Some data may come from the energy data platform if it is available, and from Liberty Utilities. Additional data will be gained by surveying property owners. The UNH Fellow will be assisted in surveying by volunteers from Sustainable Lebanon, a citizen's engagement non-profit organization based in Lebanon. A goal of the survey will be to identify low and moderate income (LMI) homeowners and renters to prioritize connecting them with free- and reduced-cost weatherization and decarbonization. This database and survey will be the start of marketing the Pilot Program because we will know by then whether the State has received WPA funding on our behalf.

Not only will the Lebanon CPRG Pilot address climate change by radically reducing greenhouse gas emissions in Lebanon, it is designed to be replicable. It will also address the affordable housing crisis by reducing the burden of utility payments on LMI residents.

BUDGET: \$3 million