

FINAL

**LEBANON EV REGULATIONS TASK FORCE
COUNCIL CHAMBERS, CITY HALL OR
REMOTE VIA MICROSOFT TEAMS
LEBANONNH.GOV/LIVE
WEDNESDAY, OCTOBER 29, 2025 5:00PM**

CITY COUNCIL MEMBERS PRESENT: Timothy McNamara, Chris Simon, Laurel Stavis

PLANNING BOARD MEMBERS PRESENT: Kellen Appleton, Wes Achord, Don Collins

STAFF PRESENT: Nate Reichert (Director of Planning & Development / Zoning Administrator), Tim Corwin (Deputy Planning Director)

1. CALL TO ORDER

Mr. McNamara called the meeting to order at 5:00pm. Mr. Reichert reviewed the City's meeting in-person and REMOTE attendance policies and procedures.

2. MEETING SCHEDULE

A. Set Next Meeting Date

The group decided to set the next meeting for Monday, November 17, 2025 from 5-7pm.

3. NEW BUSINESS

A. Discuss Fire, Building, and Electrical Code Requirements

Building & Electrical Code Requirements

Mr. Leigh Hays, Lebanon Chief Building Official and Health Officer, said he researched state building codes and regulations related to EV charging stations, as well as other parking requirements. He said there was no distinction in regulations between EVs and internal combustion engine vehicles. He said it seems the Low Power Level 2 (LPL2) chargers have emerged as a preferred choice for EV chargers. He discussed the amperage needed to provide enough electrical output for developments with EV chargers. He said 200-amp service for small- to mid-sized houses (new construction) should be more than sufficient. He said he has heard from developers that it can take many months to get switch gear and transformers (especially since the pandemic). He explained the difference between switch gear and transformers, and the differences in power needs and sources between large apartment buildings and single-family homes.

He said developers need to have a transformer and switch gear to provide power to their buildings whether EV chargers are installed or not. He said developers can install conduit in a junction box for future use but will have to size the transformer and the switch gear to handle future use, which may include EV chargers. He said if they do not account for that use when the equipment is first installed, they might have to replace it later when EV charging is installed.

Mr. Hays said there is no difference in the type of transformers or switch gear needed for regular electrical power or for EV charging. He discussed how development owners can use meters to charge tenants for individual electrical use. He explained the building inspection process and the

Planning Board requirements that need to be met in order to receive a Certificate of Occupancy. He said developers who add EV chargers after receiving the COO are required to get a building permit because of the new electrical installations. He said several chargers could be included in one building permit if they were installed at the same time. He discussed how the addition of several EV chargers in one location could impact the electric line capacity for an area.

The group discussed how the City's zoning requirements compare to the usage requirements of the National Electrical Code (NEC). Mr. Jon Livadas noted that Liberty Utilities sizes its transformers based on the assumption that people could be charging EVs all day. He explained the usage and transformer calculations for his project in great detail and said he would provide his calculations to the Task Force members. He said he would have Liberty Utilities review and confirm his calculations and would obtain a letter of endorsement from Liberty Utilities that it agrees with the calculations.

Fire Code Requirements

Mr. Jim Wheatley, Lebanon Fire Chief, said there are no fire codes related to EV chargers located either inside garages or outside in parking areas. He said there is research being conducted but no regulations have emerged yet. He said the City has had no problems with any of the EV charging stations in Lebanon. He said the only EV chargers located in garages are at the development on Mount Support Road. He said there have been no electrical fires in Lebanon due to EV charging.

He said data from multiple sources indicates that, in the United States each year, there are about 25 fires for every 100,000 electrical vehicles compared to about 1,500 fires for every internal combustion engine that's on the road. He said between 2011 and 2021, there were 460 documented electric vehicle fires. He confirmed 14 of the 460 vehicles were full EVs and the rest were gas/hybrids.

He said the biggest operational challenges that the fire department faces related to EVs is that, if they do catch fire, EVs don't go out easily and, when they do go out, they tend to start back on fire. He said EV fires tend to start in battery packs and it takes 8,000 gallons of water to extinguish an EV fire, compared to 500-1,000 gallons of water to extinguish an internal combustion engine vehicle. He said, rather than trying to put out EV fires, fire teams often isolate EVs from buildings and other vehicles and let them burn out. He said he recommends that developers locate EV chargers near exits of either garages or parking lots to facilitate the removal of any EVs that may catch fire.

Mr. Clifton Below (member of the Lebanon Energy Advisory Committee (LEAC) EV Subcommittee) said part of the problem Mr. Livadas was pointing to is that Liberty Utilities' sizing practices haven't caught up with the new flexibility in the National Electric Code to allow systems that can adapt to amperage constraints of LPL2 chargers.

Mr. Livadas explained his budget calculations (which includes labor hours, technology, hardware, etc), which the Task Force members had asked him to bring to this meeting. He said he would give a copy of his calculations to the group. He said the \$1.9 million that he calculated in additional construction costs would have to be burdened by the tenants. He said he has not determined yet how he will break the costs down among all tenants and whether non-EV users will have to pay for the additional costs that resulted from EV charger installation for the development. Ms. Sherry Boschet (EV Subcommittee) asked if the cost of the chargers is

separated out from the total cost of rest of the construction process. She asked if the labor hours spent digging trenches specifically for EV equipment was separated out from the labor hours that are part of the regular construction process. Mr. Livadas explained in detail how his costs and labor hours were determined and explained that it is more complicated than itemizing hours spent on trenches for EV equipment/chargers. He said the expected rent for the development he is building will be about \$2,800/month for a one-bedroom unit. He said he would add a column to his cost breakdown that shows the cost of each item/service/labor hour if no EV chargers were to be installed.

Ms. Boschert said LEAC provided the Task Force members with EV adoption rates that were verified for Lebanon, Hanover, Hartford, and Norwich. She said she is still trying to get the number of registered vehicles in Lebanon, but a change in the City's software has made it difficult to obtain. She said she had not yet received answers to her requests for EV statistics and information from Portsmouth, NH and Portland, ME. Mr. McNamara said it is likely that adoption rates will slow over time.

Mr. Hays discussed how NEC rates usage for buildings and said transformers that are required need to at least meet the usage rate. He said it is possible that developers like Mr. Livadas will install transformers that are larger than the use rate but are still appropriate in order to meet the usage rate. He said LPL2 chargers are not suitable for sharing by multiple units/residents, so if Mr. Livadas intends to install chargers for 5% of his parking spaces, he will provide EV charging for 5% of his units. The group discussed the likelihood that residents would have to fully recharge their vehicles and how well they would share chargers at their place of residence.

Mr. Jon Chaffee (member of EV Subcommittee) said that if Mr. Livadas' proposed 5% of spaces are the required number for EV chargers, it is not likely that it will ever be more than that. He said the question for the committee is what is a reasonable number of EV chargers. He said the only way to get those charging stations is to require developers to install them during construction when the cost is lower.

Task Force Discussion

Mr. McNamara said he feels that EV Regulations should be in the Site Plan Review Regulations and not the Zoning Ordinance.

Ms. Appleton said they did not think it should be in the Site Plan Review because it is easier for the Planning Board to rationalize why waivers should be granted for applicants than for applicants to obtain a variance from the Zoning Board. They said if the City feels EV charging requirements at residences is important, developers should have to apply for a variance if they can't meet the requirements instead of a waiver from the Planning Board.

Mr. Achord said he agreed with Ms. Appleton but suggested a two-pronged approach: Leave the regulation of the number of required EV chargers as part of zoning, but what type of chargers, signage, safety, etc. should be part of Site Plan Review Regulations overview.

Ms. Stavis said she is on a Study Commission in the NH State Legislature for HB399, which is a bill designed to "roll back" local zoning ordinances and replace them with a statewide zoning plan. She said new legislation designed to limit or end local zoning requirements is likely to pass. She said she feels regulation of EV charging should remain part of the zoning ordinance because

she said the Planning Board can make decisions that might not be consistent among applicants, and she said she felt this issue needed consistency.

Mr. McNamara said he had not been aware that EV chargers were required for one- and two-family dwellings (as well as ADUs). He said he is less likely to want to regulate these types of dwellings than multiple-family residences. He suggested that a percentage of required EV charging spaces that is between Mr. Livadas' proposed 5% and LEAC's proposed 125% could present an acceptable compromise for Lebanon's EV charging policies. Ms. Appleton said the majority of single-family homes being constructed are not being built by families but are being built by developers. They said the families that buy the homes will not have a choice to add EV charging during construction. They said because they had an EV charger installed at their home, they wound up buying an EV.

The group discussed how this issue is similar to the fire sprinklers that had been required for all homes (including single-family homes) in the City years ago. The group discussed how the City could recommend installation of EV charging outlets for single-family homes rather than requiring it. The group discussed whether the City could require developments with more than two dwelling units and make it optional for less than two dwellings.

Mr. Livadas said he would provide his cost breakdown and asked that the other information that had been brought to the committee could be shared with him. He asked the committee to review the amount of power that will be required for developments if the EV regulations stay in the zoning ordinance. He said his project will be required to have power to charge more vehicles than they have parking spaces for. He also said if these requirements continue, it will severely limit the ability of developers to build affordable housing in the City.

Ms. Boschert said the City adopted an employee EV charging plan where employees could use two Level 2 chargers for their commute electricity. She said the cost for each employee who charged their commute electricity was \$44 less per month than the cost of gasoline. She said that adds up to \$528 per year in savings for employees for their commute alone. She said they do not want to not provide EV charging at low-income housing.

4. OLD BUSINESS - None

5. APPROVAL OF MINUTES - None

6. ADJOURNMENT

A MOTION was made by Chris Simon to adjourn the meeting at 6:59pm. The MOTION was seconded by Kellen Appleton.

****The MOTION was approved (6-0).***

The meeting adjourned at 6:59pm.

Respectfully submitted,
Paula Roux
Recording Secretary