

Meeting: Planning Board
Date: January 18, 2024, 7PM
RE: EV Ordinance

Dear Members of the Planning Board,

January 11, 2024

The EV ordinance may need some review prior to moving it forward. Please take the time to review this link regarding Level 3 charging stations and consider the following thoughts regarding these necessary devices. <https://energy5.com/addressing-noise-and-vibration-issues-in-ev-charger-systems>

Level 3 charging stations are currently not recommended to be built near residential units due to the noise and vibrations they emit. Most recommend these charging stations be installed along highways, in mall parking lots or very large parking lots. These are high end electrical devices. They need high levels of ventilation. Due to many issues these stations perhaps consider them to go through a proper permitting process or be reviewed by the Technical Advisory Committee (TAC). Level 3 charging stations should not be permitted in or abutting residential units of any kind, such as CD4-L2 (most of Islington St), CD4-W (large residential development in the West End), G1 or G2 (commercial on the first floor with residential above) without excellent sound level protections. Level 3 stations could include a set back to residential units and properties of 100' or more.

Electrical charging stations are a great idea and having proper parking is accounted for in the ordinance. Level 2 charging stations also vibrate and hum which, if they are in a well insulated garage, can't be heard. However, what about if a few are put in a parking lot, it's night time and windows are open. Will they be disturbing to those living above or near them? *The number of charging stations next to each other may want to be included in this ordinance.* Could an entire parking lot be filled with Level 3 stations in CD4-L2, like a gas station? Remembered that parking meters were removed from sidewalks to increase pedestrian experiences, be sure to remember that as these stations are added throughout the city.

There doesn't seem to be a limit on how many charging stations are allowed per X area and of which kind: maybe something to consider. There don't appear to be any setbacks to residential units or properties included. **Think of these as generators for cars.** The sound level and the vibrations are similar, except a *generator only runs when the power is out.* EV stations run all the time. National Physical Laboratory (NPL), the noise produced by EV charging points can range from **50 to 85 decibels (dB)**. Generator loudness can range anywhere from under 50 dB to around 100 dB.

This is a great start to an ordinance worth putting into place. It may need to be tweaked a little more before moving it forward. Noise levels do need to be considered as more EV stations are needed. Hopefully the technology will work on the vibration and the noise but until then please consider what it would be like to have a generator pulsating next to your open window, every night, all night long. Please add necessary quality of life stipulations to this ordinance.

Respectfully,
Elizabeth Bratter
159 McDonough St
Property Owner

City of Portsmouth
Planning Board
Attn: Rick Chellman, Chairman
1 Junkins Avenue
Portsmouth, NH 03801

RE: HDC-Solar Proposal

Dear Chairman Chellman and Members of the Board,

Regarding the proposal to exclude solar power from the HDC's review, I am submitting the following for your review. I have also forwarded a slide show showing 16 solar installations within a few blocks of my home which I hope will contribute to the discussion. At the end there are some specific recommendations to the possible ordinance change.

Thank you

Joe Caldarola

Comments regarding the proposal

Those of us who have not paid close attention may have missed the tremendous advances in Solar PV in the last 10 years.

15,000 pounds of CO₂. The carbon emissions saved from the solar power system on just one house, my house, in 2023

15,000 lbs=7.5 tons. How much is that? by reference the EPA says that the average new car sold in 23 will emit 4 tons on CO₂ per year

Adding solar to just one house has more impact than taking a car off the road for an entire year

ASTOUNDING.

This is not an either- or, It is a both-and

It's not that we shouldn't support historic preservation..... Of course we should.

It's that, given where we are with the climate crises, a new value has arisen that is at least equal in importance: carbon reduction and clean energy.

Both-and.....Neither should be allowed to impede the other

It *is* subjective, witness the split votes.

If somehow, we *could* get solar power installed on every roof in the Historic District, my subjective opinion is that it would be beautiful, something Portsmouth could be proud of.

It would make National News: “Historic Portsmouth supporting green solar power”

WOW!

Follow-up: the slideshow shows how facilitating solar power requires that the panels be allowed to face the sun. Any requirement to keep them out of view makes the system not possible most of the time. In 14 of the 16 homes with solar arrays near my home the panels are visible from the street.

Comments to a possible ordinance:

Attorney McCourt’s suggestion of adding related wording to include related hardware would be helpful. It might be best to specify such items as mounting tracks and hardware, electrical conduits, squirrel barriers, and other necessary hardware.

Re the suggestion that the exception apply to panels mounted directly on a roof, it might be better to use the language in the HDC renewable energy criteria: “parallel to and as close to the roof structure as possible.” , as the panels are always mounted on tracks which position the panels slightly above the roof surface.



16 Solar Power Arrays Near Dennett Street

Two not visible from public view

Fourteen Visible

To facilitate solar power, the panels need to be located where the
sun is

Historic District Commission Guidelines for Renewable Energy

“Locate collectors where they are hidden or minimally visible from public view.”

“The frame and panels should be the same color as the roof structure...”



Dennett Street-Not visible from public view-1



Pine Street-Not visible-2



Clinton Street-Visible-1



Clinton Street-Visible-2



Burkitt Street-Visible-3



Pine and Stark Streets-Visible 4



Thornton Street-Visible 5



Thornton Street-Visible 6



Thornton and Thornton Extension-Visible 7



Thornton Street-Visible 8



Thornton Street-Visible 9



Thornton Street-Visible 10



Thornton Street-Visible 11



Thornton And Burkitt Streets-Visible 12



Bartlett Street-Visible 13



Bartlett and Thornton Streets-Visible 14