



# New Paltz Climate Smart Newsletter

# Meetup: Light Pollution & Dark Sky Friendly Lighting

Tuesday, September 1, 2020 6:00 PM to 8:00 PM EDT Online event https://zoom.us/j/94726633706?pwd=ckYyelJiQ0czMUpSb25pTTZOdD15UT09



What does protecting our dark skies, being climate smart, and saving our every decreasing insect populations have in common? Using appropriate energy-efficient lighting! The Meetup will be an introduction to "Light Pollution & Dark Sky Friendly Lighting". We will cover what it is, how it is classified, it's impact on the environment, and what can be done to address it.

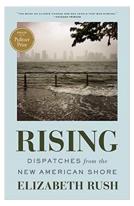
Our presenter for this topic will be James Brigagliano who is a certified LC, IES, LEED Green Associate professional. James began his career in lighting over 15 years ago working in the

Planning, Design & Construction Department at Cornell University. In his time at Cornell James gained experience measuring and photographing built projects, collaborating with professionals on master planning and creating site lighting standards for the campus. For the last 10 years James has dedicated his career to lighting and product development at Selux Corporation in Highland, NY. Here James has written multiple continuing education articles, developed many new products, and gained a strong appreciation for environmentally friendly lighting. His personal interests include photography, trail running and winter mountaineering/skiing and adventure/endurance sports.



### **Climate Smart Book Club**

Our book club has been meeting every month since February and we have really found each and every book choice meaningful leading to deep conversations. Please consider joining us this month for our next book pick - Rising: Dispatches from the New American Shore. Hailed as "deeply felt" (*New York Times*), "a revelation" (*Pacific Standard*), and "the book on climate change and sea levels that was missing" (*Chicago Tribune*), *Rising* is both a highly original work of lyric reportage and a haunting meditation on how to let go of the places we love.



With every passing day, and every record-breaking hurricane, it grows clearer that climate change is neither imagined nor distant—and that rising

seas are transforming the coastline of the United States in irrevocable ways. In *Rising*, Elizabeth Rush guides readers through some of the places where this change has been most dramatic, from the Gulf Coast to Miami, and from New York City to the Bay Area. For many of the plants, animals, and humans in these places, the options are stark: retreat or perish in place.

Weaving firsthand testimonials from those facing this choice—a Staten Islander who lost her father during Sandy, the remaining holdouts of a Native American community on a drowning Isle de Jean Charles, a neighborhood in Pensacola settled by escaped slaves hundreds of years ago—with profiles of wildlife biologists, activists, and other members of these vulnerable communities, *Rising* privileges the voices of those too often kept at the margins.

Sign up for the Climate Smart Book Club on the Meetup platform at <a href="https://www.meetup.com/New-Paltz-Climate-Change-Solutions-Meetup/">https://www.meetup.com/New-Paltz-Climate-Change-Solutions-Meetup/</a>

Join the Zoom discussion of our book this month on September 15th at 7:00 pm

Join Zoom Meeting https://zoom.us/j/91066225574?pwd=TIVKMU9vNWkxMGE5ZzdTM2VabWMxQT09

Meeting ID: 910 6622 5574 Passcode: 605408 One tap mobile +19292056099,,91066225574#,,,,,0#,,605408# US (New York)

Dial by your location +1 929 205 6099 US (New York)

Meeting ID: 910 6622 5574 Passcode: 605408

#### Current New Paltz Climate Smart Ongoing Projects – Update from Amanda Gotto

#### Climate Smart Resiliency Planning Tool

Cornell Cooperative Extension of Ulster County continues to collect input from Town and Village staff to complete the Climate Smart Resiliency Planning (CSRP) Tool spreadsheet for each municipality. The penultimate versions of the spreadsheet will be shared with the teams for final review in early Sept. Draft reports with recommendations for each municipality will also be shared in Sept. The CSPR Tool project spreadsheet and recommendations are scheduled to be presented at the joint Village/Town Board meeting in September.

#### Natural Resource Inventory

The Natural Resource Inventory (NRI) subteam and consultants continue to review the 28 detailed maps that will used in the online version of the NRI.

#### • 100-year Floodplain Mapping

The Woods Hole Research Center continues to gather data for this project to:

- o create a useful actionable product to aid in decision making
- generate a robust quantification of data with a high degree of customization and uefulness
- help prevent future flood problems, direct decisions on build-out, inform potential code changes, and augment the Town and Village Comprehensive Plans.

#### Join the Silent Revolution Submitted by Samrat Pathania

A silent revolution is happening on the streets of Europe. The sales of electric vehicles (EVs) in many major European countries <u>hit double digit</u> percentage points in July 2020 (Norway 68%, Sweden 29.5%, Finland 16%, Germany 11.4%). However, EV sales in the USA remain much lower as a percentage of the total market despite the fact that the world's leading EV manufacturer, Tesla, is one of the great American success stories. For the purpose of this article, I shall not try to analyze why this is the reality of the EV market in the US. I will merely tackle some of the biggest doubts people have about the environmental benefits of EVs, especially with regards to their batteries.

Air pollution kills tens of thousands of Americans every year, with the transportation sector being one of the biggest factors in causing this pollution. Fully electric vehicles are the perfect solution to this problem since they have no tail-pipe emissions. But a refrain that I often hear from EV doubters goes something like - "don't you use fossil fuel based electricity to charge your electric car." This would be a valid concern except for the fact that the electrical grid is getting cleaner/greener every year in the US and so are the EVs. According to the Union of Concerned Scientists, "Even when the electricity comes from the dirtiest coal-dominated grid, electric vehicles (EVs) still produce less global warming pollution than their conventional counterparts, and with fewer tailpipe emissions (or none at all)". I would encourage you to play with this tool to see how the grid in your area would stack up (no pun intended) if you drove an EV.

Okay, so the EVs reduce air pollution and greenhouse gas (GHG) emissions. But what about the batteries? What about their environmental impact? Instead of recapitulating information from multiple excellent articles, I will merely summarize that information in a list.

a) For the more technically oriented, here's a primer to the chemistry of Li-ion cells.

**b)** Just like a new laptop does not quit working when its 1 year warranty expires, EV batteries do not need to be replaced after their warranties expire. As the data is starting to come in, it is becoming clear that most EV batteries will outlast the 200,000 miles that we expect modern cars to last.

c) After their first life in EVs, most EV batteries will find a second life as storage batteries. Here are some examples and good reads:

- EV Batteries and Microgrids
- Analysis by McKinsey & Company
- Nissan's "The Reborn Light" Project
- Amsterdam stadium and battery storage
- Audi EV battery storage trial

d) EV batteries are recyclable with immense economic potential.

- <u>Deep dive</u> by Bloomberg Energy
- <u>Umicore</u> European Recycling Giant
- Tesla <u>recycles</u> its batteries because "it would be a waste of money not to."
- The US Department of Energy is investing more into <u>R&D</u> for battery recycling.
- As the need for recycling ramps up, so do start ups: <u>Duesenfeld</u>, <u>American Manganese Inc</u>. and <u>Lithion</u> being some of the front runners.

e) Mining for minerals used in batteries is becoming more sustainable and ethical, with better industry practices and new breakthroughs happening both in mining and battery chemistries.

- Responsible Minerals Initiative
- Climate-Smart Mining: <u>Minerals for Climate Action</u>
- New <u>patent</u> for lithium mining technology in Germany
- <u>Solid-state</u> lithium batteries
- Volvo and <u>blockchain</u>
- Tesla and <u>cobalt free batteries</u>



In conclusion, I'd like to state that it is wonderful that people are expressing concerns about the environmental impacts of EVs. Unfortunately, it is something that we didn't really do when we created a world run by our gasoline/diesel vehicles. EVs already offer immense benefits over fossil fuel run vehicles. EV batteries are not a static technology- as they continue to evolve we will keep striving to make them better and more environmentally sound.

# **Global Day of Climate Action - Friday, Sept. 25**

There is discussion of what we can do here in New Paltz for the Global Day of Climate Action but we do not have a detailed plan yet. If you are interested in helping, please email us at newpaltzclimatesmart@gmail.com and put Global Day of Climate Action in the subject line.

#### **Promotion of Solar Canopies in New Paltz**

A number of us have been talking about how to promote solar canopies in New Paltz. They have many advantages because they can go over existing parking lots and therefore do no create additional impervious surfaces and do not usually require the cutting of any trees. They also



provide shade and for that reason people like parking under them. Our Town Code 140-51.3 A (4) Planning Board review contains provisions for a waiver from site plan review under certain circumstances. One of which is:

"The applicant proposes to install photovoltaic or solar hot water system on an existing building or structure, or within the bounds of a parking area or other area constructed with a paved impervious surface, so as to not increase the amount of impervious surface on the site."

This has been a part of the code since 2014 but there have not had any applications for such use.

Since New Paltz has not had any applications for parking lot solar despite favorable permitting is a reminder that regulations and finance are not the only barriers to this sort of installation. Marbletown has had exactly one permit filed which will include parking lot awnings, and those awnings were the direct result of one of our Task Force members talking directly with the property owner. The property owner liked the idea of including parking lot awnings, but neither he nor the developer had even considered the idea before it was brought it up. From this example, it's clear that education and outreach to solar developers and installers will have a role to play in encouraging this sort of development.

Are you interested in helping us here in New Paltz to find out how we can encourage the development of solar canopies? Please contact Janelle at <a href="mailto:newpaltzclimatesmart@gmail.com">newpaltzclimatesmart@gmail.com</a> and put solar canopies in the subject line. We are going to pull together an action group to work on this issue.

## **Highest % Of Solar-Powered Homes In The U.S.?**

So this is kind of a good news/bad news story...

#### Last week our mayor was notified by Michael Brown of LendEDU:

"I wanted to let you know that New Paltz has been nationally recognized by LendEDU for having one of the highest percentages of solar-powered homes in the U.S.

You can see the full report here: <u>https://lendedu.com/blog/cities-highest-proportion-ecofriendly-homes/</u> We licensed the most up-to-date housing data from GreatData (who derives their dataset from the U.S. Census) for over 25,000 American cities. Each city was ranked according to its percentage of solarpowered homes relative to its total number of homes.

Specifically, New Paltz has 31 solar-powered homes out of 7,328 total housing units, which means 0.42% of the homes in New Paltz are solar-powered and more eco-friendly.

The high percentage in New Paltz ranked #721 in the country and #43 in the state of New York.

Congrats on the recognition. The cities and towns featured in this report, like New Paltz, are some of the most eco-friendly places in the country and provide the best opportunities for homebuyers that are looking to own a solar-powered home.

Residents of New Paltz should be proud of this accomplishment, and I encourage you to share it with them through your city's website and social media pages.

I can also make you a free virtual badge that commemorates the recognition and looks great on social media.

Just let me know if you have any questions or want to discuss the data in more detail.

Best, Mike



Michael Brown

in

Director of Communications | LendEDU w: <u>https://lendedu.com</u> | t: 800-984-5694



So why do I say this is a good news/bad news story? While it is great to have recognition of the use of solar power in our residential community, the actual numbers are pretty sobering - less than 1/2 of 1 percent. Can't we do better? Hasn't anyone heard that we are in a climate crisis??!! This report may be updated annually and we are looking to better understand it's validity and nuances but perhaps this can become a



benchmark for us. Please click on the link above from LendEDU to take a look at the full report. Note that this data does not reflect homes who have signed up for Community Solar which is another powerful way to make your home more "eco-friendly".

### Calendar

Tuesday September 1st, 6:00 pm: NP Climate Solutions Meetup https://zoom.us/j/94726633706?pwd=ckYyelJiQ0czMUpSb25pTTZOdD15UT09

Thursday September 3rd at 12:00 noon: Gas Stove Pollution: Health and Air Quality Impacts \ Register - <u>https://wespac.org/event/gas-stove-pollution-health-and-air-quality-impacts-</u> <u>thursday-september-3-2020-at-12-1-pm-eastern/</u>

Tuesday September 15th 7:00 – 9:00 PM Climate Smart Book Club https://www.meetup.com/Climate-Smart-Book-Club/events/272874532/

Monday September 21st 7:00 pm New Paltz Climate Smart Task Force meeting

Every Thursday: New Paltz Climate Action Coalition 5:00 – 6:30 PM https://uso2web.zoom.us/j/82087830742?pwd=MCtrNzZTWThtQWsoMDVEUktRdn F5QT09