# EV Club 2023 - Year in Review

2023 was a notable year for the club as it produced a fully subscribed symposium and began a partnership with People's Action for Clean Energy (PACE).

# Northeast Electrical Vehicle Symposium

The EV Club produced its first conference, along with an EV showcase, in conjunction with the CT Tesla Owners Club. It was fully subscribed and is planned to be an annual event. It was hosted at the zero-emissions, LEED Platinum Hotel Marcel in New Haven, and covered topics ranging from the Advanced Clean Cars regulations to electrifying one's home, EV incentives, utility programs, local EV-friendly zoning and a keynote from You-Tuber Out of Spec Dave. Recap <a href="here">here</a>.

### **PACE**

We have been working increasingly closely with the PACE (People's Action for Clean Energy) organization. Our collaboration began with data, as we contributed the vehicle data we obtain to the data they use to analyze municipal energy use. This is a service that PACE offers free to any municipality — they'll quantify energy use and show where there are opportunities to decarbonize.

We are aligned on policy as both organizations support direct

sales, regulations for clean vehicles, the Energy Data Bill of Rights, and expanded distributed and shared solar.

We support each other's events. This allows each of us to improve coverage throughout the state.

PACE offers a number of services for communities, including supporting HeatSmart campaigns for heat pump adoption, help with solar canopy siting, and data on building efficiency.

Finally, PACE has also been giving the club some financial support. We may be a volunteer organization, but we do have expenses! They also accept donations on our behalf. Go <a href="here">here</a>. After clicking on an amount, you will go to a page that allows you to designate how you would like the donation to be used. Choose "create your own," and type in "EV Club."

## First Responders

The EV Club continues to support our first responders when they hold EV training events. This year we worked with Fairfield, Windsor Locks, Northville, and Middlebury.

### **Incentives**

Incentives are now more numerous, more complex, and a moving target. We decode them and keep up to date with changes for the federal and state EV purchase incentives, as well as the charging incentives offered by the utilities. This is our incentives page. We have worked with a number of individual members to sort through these and help with questions. We also had the opportunity to speak at length with Eversource regarding how to operationally improve the consumer experience with respect to incentives and dealing with voltage sags and transformer sizes that could limit solar production.

Our near term outlook is that the Foreign Entity of Concern rules, the first half of which take effect in January 2024,

will cause a reduction in the number of incentive-eligible EVs.

The other important near term item is the transfer option. This enables the consumer to obtain the incentive as a point of purchase rebate rather than a tax credit. The consumer has an option to do one or the other. Aside from getting the incentive sooner, it also enables people who do not have the tax liability to burn off a tax credit to be able to utilize the incentive.

### **EV Showcases**

We continue to support as many EV showcases as we can by helping to publicize the events, and recruiting owners to exhibit their vehicles. We encourage all EV owners to participate in these as it is a great way to discuss the virtues of driving electric and leave out the politics. We also supported and participated in events by Electric Car Guest Drive in New York.

The Club itself staged 2 showcases, one in May and a second in September as part of the Symposium. We were happy to include a Tesla Model Y patrol car owned by the Westport Police. We thank the CT Tesla Owners Club for working with us on these and for arranging for Tesla to give test drives.

If you would like us to post your showcase event, please see this <u>post</u> about the information we need.

## Speaking Engagements and Tabling

- Stonington Energy Fair
- Fairfield Warde High School
- Interreligious Eco-Justice Network Forum on Advanced Clean Cars II, Greenwich
- Central Connecticut State University

## **Zoom Meeting Presentations**

- SPAN smart panels what they're about and what is involved in installing one in your home
- Renowned teardown artist and automotive engineer, Sandy Munro, tells it like it is
- IRA deep-dive into the EV incentives

# Policy/News

- Rivian, after fending off a dealership lawsuit, has broken ground on a service center in Shelton.
- First Tesla Magic Dock in CT.
- Participation continues with the national Electric
  Vehicle Association Policy Committee.
- The last couple of years have been difficult regarding state level environmental legislation. Advanced Clean Cars II is stalled. It is possible it may come back but not certain. We continue to support a direct sales bill and the Energy Data Bill of Rights.
- EV Club CT had a presence at the <u>Cybertruck Reveal</u> Event.
- EV Club is happy to work with municipalities on EV charging, such as the new installation of 12 level 2 chargers (80 amp) in Westport.

# EV Club Invited to Grand Opening of Tesla Sales and Delivery Center

This is the facility that is being built on tribal land at the Mohegan Sun Casino complex. The event is 12/20 and registration is <u>here</u>.

Much of the reporting in the mainstream press about this facility labels it as a loophole or a way to skirt the law. We believe this to be a mischaracterization. Tesla is following

the law. Federally recognized tribes hold sovereign power on tribal land. It is up to the Tribal Council to approve such a facility and they don't run scared from dealerships.

### Data

We were able to bring the <u>EV Dashboard</u> back, tracking the level and characteristics of EV adoption in Connecticut. Access to data was granted courtesy of Atlas Public Policy, but sourced from the Department of Motor Vehicles.

Continued tracking of EV <u>rebates by dealership</u>, which is our proxy for which dealers are EV-friendly (applicable, obviously, only to those that sell CHEAPR-eligible vehicles). This typically gets updated around March of each year — it depends on when the data get published by DEEP.

### Videos!

Find them on our <u>YouTube channel</u>

- New electric police patrol cars in Westport and Wethersfield (Tesla Model Y and Ford Mustang Mach-E, respectively)
- Owner video Andre and his Polestar 2
- Fairfield First Responder EV training
- Sandy Munro and Corey Steuben riffing about all things
  EV and batteries (Meeting recording)
- Inflation Reduction Act Deep Dive (Meeting recording)
- Tesla Magic Dock Closeup
- Smart Panel discussion with SPAN (Meeting recording)
- Hotel Marcel Tech Deep Dive Bruce Becker, Paul Braren,
  Will Cross

# Driving Electric Is Now a Moral, Fiscal and Climate Imperative

Post by Analiese Paik and Barry Kresch

# EVs Are Essential to Mitigating the Climate Crisis

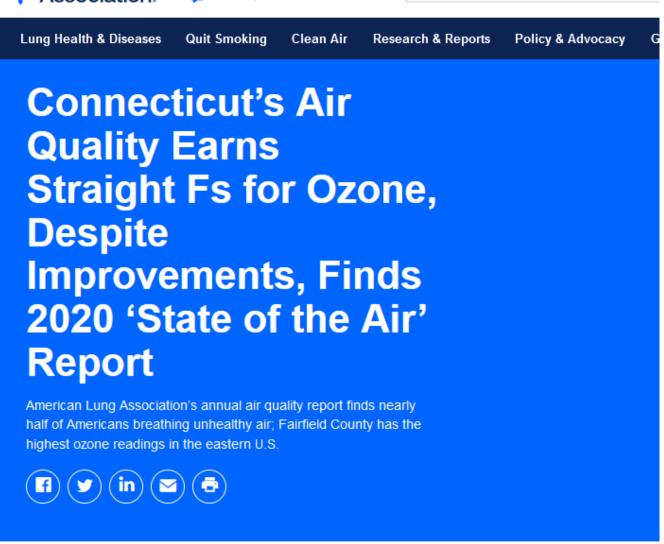
We're in a climate crisis and each of us should be taking action, regardless of state and federal policy. Driving electric has become a no brainer now that new models are out with longer-range batteries in styles and sizes that fit varying consumer needs. The Rivian R1T pictured above is a luxury adventure pickup with an optional camp kitchen with an induction cooktop that tucks away in a gear tunnel.

If Congress passes the <u>Clean Energy for America</u> bill, or folds it into other legislation, EV buyers could enjoy up to \$12,500 in tax incentives/rebates on qualified vehicles until fully 50% of the cars on the road are electric. Currently the full \$7,500 tax credit is still available to all-electric car (BEV) buyers as long as they aren't buying a GM or Tesla vehicle (they met their 200,000 vehicle quota). Connecticut also provides a cash rebate for certain EVs, both new and used, but the parameters are always changing (<u>read more here</u>).

### **Create Zero Tailpipe Emissions**

A battery electric vehicle is a zero-emissions vehicle. If we are to mitigate climate change, it is imperative to electrify

transportation which currently accounts for 38% of statewide greenhouse gas emissions in the form of carbon dioxide and methane. The state has set a goal for itself of 500,000 registered EVs by 2030. We are less than 3% of the way there. Zooming out, the bigger transportation picture includes mass transit, active transport, and medium/heavy duty vehicles. Every year, we see rising temperatures, as evidenced by heat waves, more severe hurricanes, drought, and wildfires. This is climate change made manifest. We can't afford to be complacent. The time for rapidly transitioning to a zero emissions transportation system is now.



HARTFORD, CT | April 21, 2020

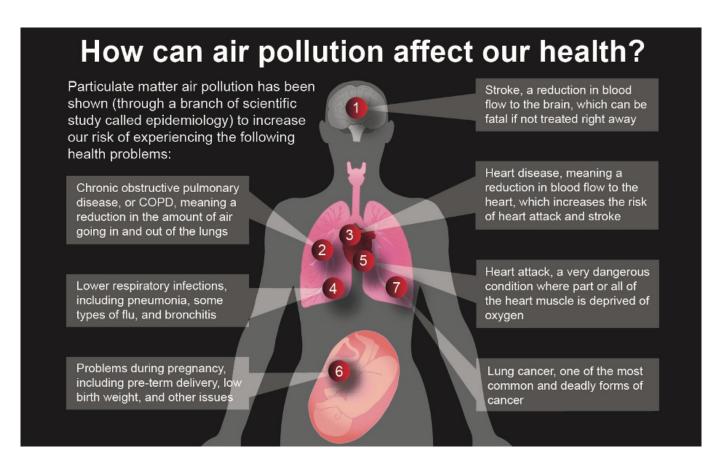
Editor's Note: The full report, as well as trend charts and rankings for metropolitan areas and county grades are available at Lung.org/sota

The American Lung Association's 2020 "State of the Air" report found that every county in Connecticut continued to earn failing grades for ozone pollution, despite marginally less unhealthy days. Connecticut

### Improve Public Health

CO2 and, methane aren't the only pollutantants emitted from vehicle exhaust. There is particulate matter (pm) and oxides of nitrogen (NOx) to name two. NOx + volatile organic compounds + sunlight = ozone, the main ingredient in smog. The American Lung Association gives every county in Connecticut a

grade of F for ground-level ozone. Smog and particulate matter are major contributors to cardio-pulmonary disease and cancer, and is a risk for pregnant women. Imagine the positive health impacts on communities near major transit lines no longer subjected to the nois a risk for pregnante, NOx and pm from road traffic. Has anyone quantified the positive impact on real estate values as roadway noise, pollution and climate damage goes away?



### Save Money

While an electric vehicle can be more expensive to acquire, the cost of owning one is significantly less than an internal combustion engine (ICE) car according to <u>Consumer Reports</u>. Not only is it less expensive to power a vehicle on electricity, but EVs also need much less maintenance. The bottom line is that it's half as expensive to drive an electric than an internal combustion engine (ICE) vehicle because of the fuel and maintenance savings. And the time you save could make it even cheaper. So can free charging.

While there is variation among EVs in terms of efficiency and electricity rates, a reasonable benchmark is a cost of 5 cents per mile to operate an EV. By contrast, if an ICE vehicle gets 20 MPG and gasoline costs \$3 per gallon, the operating cost is 15 cents per mile. And there are federal, state purchase incentives that can reduce or eliminate the differential in the EV acquisition cost. There are also forthcoming utility incentives that will lower the cost of charging.

Aside from the fuel costs, there are lower maintenance costs. With approximately 90% fewer moving parts in an electric vehicle relative to an ICE vehicle, there is simply less to maintain and fewer things to break. An EV has no spark plugs, catalytic converter, alternator, transmission, timing belt, water pump, and doesn't need oil changes to name a few examples. A recent analysis conducted by EV Club of CT President Barry Kresch shows tens of thousands of dollars savings accruing to the Town of Westport after the PD opted for a fully-outfilled Tesla Model 3 squad car rather than a Ford Explorer (gas powered ICE).

### **Drive More Efficiently**

Regenerative braking, where the engine slows the car and recaptures some of the kinetic energy to store in the battery, means there is less wear on the friction brakes and the energy isn't wasted and converted to heat lost in the atmosphere. It is not uncommon to go 70,000 or more miles before brakes need to be serviced on an EV.



### **Enjoy Reliability**

Fewer things to break means fewer trips to the repair shop, less downtime, less inconvenience and more peace of mind. No oil changes saves a quarterly visit to the service department and avoids the time and hassle. A great strategy for someone with a daily commute of 60 miles or less would be to purchase a used EV that still has good battery life, charge it at home and use it as the daily driver. The state of CT's CHEAPR program now offers cash rebates to qualified buyers of used EVs. If you find DEEP's website confusing, join us on July 27, 2021 where we'll explain it in consumer-friendly English during our free webinar, How to Save Money on an EV.

### Have More Fun Driving

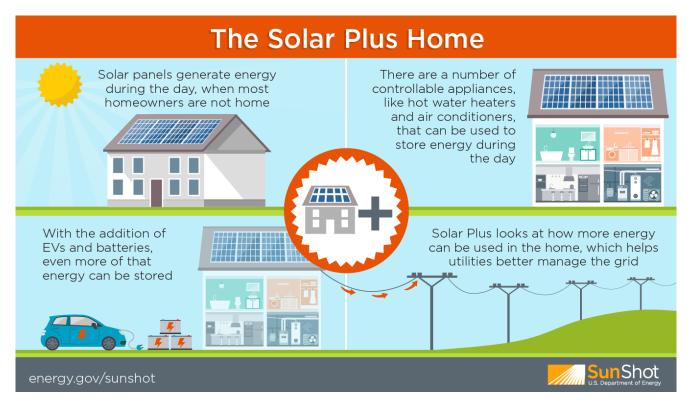
EVs have instantaneous torque. Hit the accelerator and the electric motors immediately respond. This is why performance EVs can outgun the high-performance ICE vehicles. On Connecticut roadways, especially congested highway and parkway entrance and exit ramps, the instant speed means you can maneuver that much more quickly and safely. EVs come with

advanced safety and drive assist features that make your drive on our busy roadways safer. Bumper to bumper traffic? Turn on autopilot, keep your hands on the wheel and eyes on the road, but give your outstretched legs a break and let the car do the start and stops for you. Your daily commute just more relaxed.

#### Save Time

You'll never have to go to a gas station again for fuel. That means no time taken out of your schedule to gas up or wait for an oil change or more complicated maintenance or repair. Most EV owners charge their vehicles at home at night and love the convenience. When you get up to go to work, you have a full "tank." When you're away from home, some EV chargers even let you charge at no cost. Your town likely has at least one free charger. Look for them near libraries and town halls; schools can be tricky, especially when in session. Join us on July 27 to learn more free charging hacks.

### **Promote Energy Security**



EVs go hand in hand with decarbonizing the grid and rapidly advancing the shift to <u>all-electric homes and a distributed</u>

<u>energy network.</u> NREL (National Renewable Energy Laboratory) is developing and evaluating fully integrated systems that <u>connect electric vehicles (EVs), transportation infrastructure, power grids, buildings, and renewable energy sources.</u>

We can produce the electricity we need from domestic renewables like solar and wind. If you have solar panels on your home, even better (consider adding battery storage for resiliency). The CT grid is moderately clean at present, mainly because the state gets 38% of its electricity from nuclear and almost none from coal; the great preponderance is from natural gas (sigh). There is a mandate for 30.5% of electricity in 2021 to come from renewables, though the state is falling short of that. However, in recent years, the legislature has authorized offshore wind and stationary storage projects, and there has been approval of some community solar. Even if you do not have solar on your roof, you can choose a supplier that generates its energy from renewables at <a href="mailto:EnergizeCT">EnergizeCT</a>.

### Support Domestic Green Jobs

Green jobs are new economy jobs that are critical to rapidly transitioning the US and world to a sustainable future while growing and creating well-paying, in-demand, skilled jobs (many unionized) in STEM, EV manufacture, EV charging infrastructure, energy storage, solar systems, wind turbines, and all manner of R&D, manufacture, service, maintenance and repair. Ohio's Mahoning Valley is home to a "fledgling electric vehicle manufacturing cluster" that is supported by the government, industry, unions, schools and universties working in concert with one another to ensure workforce training matches job creation. Read about this exciting workforce development plan and and growing EV industry in Ohio here. Now imagine if we had that in Connecticut.

The EV Club of CT meets online monthly and all drivers are

welcome, as are EV-interested. Please comment below or send us your inquiries.