# Love Your Gas Car But Hate Emissions? Time for an EV Conversion

By Analiese Mione

But I love my car. I have heard that refrain so many times when speaking to everyday people about driving electric. Now you can keep the car you love and nix the emissions and costly maintenance with an ICE to EV conversion.

# **ICE to EV Conversions**



Appearing right to left are Jonathan Untied, co-founder, President and Chief Software Engineer; co-founder, Lead Electrical Engineer Dennis Manning, and co-founder, Lead Mechanical Engineer Joe Monasky.

This is neither a simple nor inexpensive operation, at least not yet. A visit to <u>Inductive Autoworks</u> in Tolland, CT to attend a VIP tour of their new EV conversion facility provided a wide eyed, in depth look at what's involved. Dive into the video below for a quick overview and read more below about how Inductive Autoworks is bringing EV technology into the mainstream.

Appearing right to left in the video below are Jonathan Untied, co-founder, President and Chief Software Engineer; cofounder, Lead Electrical Engineer Dennis Manning, and cofounder, Lead Mechanical Engineer Joe Monasky.

### Strip Out the Engine

Step 1 is to remove the gas engine, gas tank and clutch, if it has one. Inductive Autoworks' triumvirate of founding engineers said this is the easy part and their shop does it fairly quickly.

### Put in a Motor, Battery and other EV Conversion Components



Electric motor and controller/inverter on cart



Inductive Autoworks Exploded Electric Vehicle display



Niro EV Battery Pack at Inductive Autoworks

Step 2, better yet phase 2, is to add all the EV components and connect them. EV conversions are custom engineered, take

time and cost more than you'd think. Think of all the parts of an EV that don't exist in an ICE vehicle. All these need to be added including an electric motor, battery to charge the motor, on board charger, charging port, and battery management system. Learn more about batteries and other EV conversion components, and how to get them talking to one another, in the photos above and videos below.

Want to take a deeper dive into all the critical EV parts and how the Inductive Autoworks team collaborates to design, create and install them so you can drive your favorite car as an EV? Watch the beginning of the video below from fellow EV Club of CT member Paul Braren who attended their pm open house. Watch the whole video to visit each display station including the CNC and converted EV.

But for the classic car lover in particular, conversions are THE solution to keeping the car running in an environmentally friendly way. For the ROI types among us, factor into your spreadsheet the cost savings from not maintaining a combustion engine (who loves ordering rare and expensive parts from Germany?), switching to electric vs gas (50%+savings), and the priceless improvement in performance. We do want to see your analysis! For now, there is no word on whether CHEAPR incentives will apply to conversions.

#### **Building an EV Conversion Brain Trust**

Wondering about car insurance for a conversion? We are too, so more on that coming soon, but rest assured Inductive has registered and insured converted vehicles like the Mazda RX-8 below. Each time Inductive does a custom conversion for a particular ICE make and model, like the Mazda RX-8, the design and fabrication specs gets stored in a module they can reuse to convert another vehicle at a much lower cost.



Mazda RX-8 Custom EV Conversion by Inductive Autoworks

### **Custom Machined Parts**

Custom parts are designed on a computer and fabricated in house on the CNC (Computer Numerical Control) machine, thereby ensuring accuracy and consistency while ruling out human inefficiency and error. The next time they have to machine the same part, they call up the design and reuse it at marginal expense to the customer.



The CNC machine at Inductive Autoworks used to design and machine parts for custom EV conversions.



Inductive Autoworks created a custom adapter (protype shown) to allow them to mount an electric motor to an OEM transfer case.

Watch the video below to learn about their protyping, testing at the test bench, get a closeup of the Mazda RX-8 conversion and test Leaf used to evaluate how they can swap out spent batteries for new ones. The tricky part is getting the car to accept the new part, and that's a software problem. Good thing they have a software engineer on the team.

#### Driving the Evolution to EVs

The team is also working towards offering kit conversions for DIYers, but this is an evolution. If you're looking to get a new battery for your spent 2012 Nissan Leaf for example, reach out because battery replacements are part of the evolving EV ecosystem they're building. And yes, old batteries will be

used for stationary storage.

Interested in an EV conversion or other EV services? Reach out to Inductive Autoworks at inquiry@inductiveauto.com or +1 860-222-0915 and let them know the EV Club of CT sent you.

# PURA and United Illuminating to Review New EV Charging Incentives with Club

Post by Barry Kresch

All are welcome to our virtual meeting on **January 25th at 7 PM** to hear and ask questions about the new incentive program for EV charging to be offered by the EDCs (utilities, or electricity distribution companies).

With us that evening will be Stefanie Keohane of the Public Utilities Regulatory Authority (PURA), which initiated this program as part of its grid modernization efforts, along with Charles Spence and Marriott Dowden of United Illuminating. Charles and Marriott are the consumer-facing individuals for the residential and commercial aspects of the program respectively.

Two recent blog posts discussed the <u>single family</u> and <u>multi-unit</u> residential parts of the program. There are also incentives targeted to workplace, commercial, and fleets, encompassing both level 2 and level 3 charging. Incentives include subsidies for charging hardware, installation (including make ready), and electricity costs (including demand charge mitigation).

This is a statewide program. Even though our speakers are from United Illuminating, Eversource customers have access to the identical program.

This meeting is being recorded and will be uploaded to the club YouTube channel.

The meeting is free but registration is required: <u>https://us02web.zoom.us/meeting/register/tZYrcuutrzguGdd304Z\_k</u> <u>9pqFUXrxPwSBK1b</u>

# Charging Incentives for Condos and Apartments

Post by Barry Kresch

# MUD

It stands for multi-unit dwellings. According to the Public Utilities Regulatory Authority (PURA) adjudication, about 10% of Connecticut residents call this type of dwelling home. These are mostly in the cities, which have the worst air quality and the worst access to charging, but also an opportunity for clustered charging installations (EVSE) to drive efficient utilization.

The program outlined here is for level 2 chargers. The definition of an MUD is a building with a minimum of 5 units. (There is a different set of rules for buildings with 2-4 units.)

### Make Ready

One of the big challenges is to get the necessary power to the charging station and this is addressed by what is known as "make ready." Make ready is subsidized at up to 100% and it involves bringing power from the source to the "pad," meaning where the EVSE is being installed. Even if a MUD starts small in terms of the number of chargers installed, it would be wise in the case of the make ready to **plan for future demand** since bringing power to a location is a non-trivial exercise. The adjudication recommends that the utilities (EDCs) talk this through with the site hosts to determine how much power should be put in place.

### **EVSE Subsidies**

There is also a subsidy of up to 50% for the EVSE hardware itself. There is a minimum requirement of 2 ports (plugs).

### Site Cap

A cap of \$20,000 is placed on the incentives for a particular site (make ready plus EVSE), unless the site is in a distressed area, in which case it doubles to \$40,000.

### **EVSE Leasing Option**

Since buying numerous EVSE, even with a subsidy, can represent a substantial capital cost, there is will also be a forthcoming leasing option. The EDC would be the owner and a monthly fee would be paid for the equipment. There will be buyout rights. The EDCs have a deadline of May 1, 2022 to submit their proposals to PURA with a planned implementation date of July 1, 2022.

PURA has concerns about this arrangement crowding out the private marketplace and so it will be revisited and evaluated after the first program cycle.

### Managed Charging and Charging Costs

Enrollment in a managed charging program will also be required of this class of customer. However, the initial proposal by the EDCs was not accepted by PURA. The EDCs have until May 1 to submit a revised proposal with implementation no later than January 1, 2023. Something that is expected that differs from the single family residential is that the incentive will take the form of a baseline incentive with the ability to craft a customized program with the EDC, dependent upon certain conditions

There is the thorny question about how costs are passed along to drivers. Is that the domain of the EDC or the site owner? Does there need to be sub-metering? How best to address the "split-incentive" arising between landlords and tenants? A final resolution has not been decided upon and a more complete plan will be developed over the coming year. It is PURA's preference to avoid sub-metering and direct billing of drivers.

### **Demand Charges**

These are classified as commercial incentives. And commercial accounts are subject to demand charges. There is a plan for demand charge mitigation, but the details of this are yet to be finalized. There is a stop-gap plan in force. This is also something to make sure to discuss with the EDC.

As noted in the prior blog post about <u>single family</u> <u>residential charging incentives</u>, we have scheduled a Zoom meeting on January 25th with spokespersons from both PURA and the UI. Bring your questions!

Important Note: The above-described incentives are part of the commercial incentives. These apply to condos with a minimum of 5 units. Buildings with fewer units are treated as residential.

The application portal is expected to be ready by the end of Q1 2022.

# Single Family Residential Charging Incentives

Post by Barry Kresch

# Charging Incentives Via The Utilities

The incentives drafted by the Public Utilities Regulatory Authority that will be made available through Eversource and United Illuminating (commonly referred to as utilities, but in regulatory parlance known as EDCs or electric distribution companies) have been mostly finalized. There are a number of parts to them and we will be writing about them periodically over the next few weeks. There are subsidies for residential, commercial, municipal, and fleets. The residential charging program includes incentives for multi-unit dwellings (MUD) as well as single family. Incentives include subsidized charging stations, installation, make-ready, discounts on electricity, and demand charge mitigation.

The grid at the top and the explanation below cover the incentives for single family residences, which became effective on January 1, 2022.

The incentives for charging stations require the purchase of utility approved hardware. Incentives are not retroactive. The list of approved chargers will be published on January 20, 2022. Approved chargers will be smart chargers. Taking the subsidy requires enrollment in the demand-response charging program.

### **Residential Single Family Incentives**

- Up to a \$500 incentive for purchase of a level 2 smart charging station. Smart = WiFi connected at a minimum of 25 MBPS or cellular service, 4G minimum.
- Up to a \$500 incentive to bring a 240 volt line to the garage, if needed.
- Owners give the utility permission to see charging data.
- Up to \$200 per year for participating in demand-response charging events. Two year commitment required.

It is possible to get charging incentives for a non-networked (i.e. dumb) charging station that may have been previously installed or even for one that is bought new. In this case the charging information can be obtained either via vehicle telematics (if the vehicle has that capability), or the utility can send a device that will enable a dumb charger to access WiFi. There will be no charge for this device. The EDCs will be publishing a list of which vehicles qualify for telematics.

A \$100 enrollment incentive is offered to people who participate using either telematics or a charger upgrade device.

 An owner buying a new dumb charger is not eligible for the hardware subsidy, but is eligible for the installation subsidy.

The managed charging program in year one is limited to a demand response program. **EV owners can get up to \$200 per year** (\$50/month over 4 months) for their participation, whether that participation comes via a smart charger, telematics, or upgraded dumb charger. The demand response program is in effect from June 1 through September 30. During high demand

periods, the utilities are permitted to reduce the rate of charge going to your vehicle. The vehicle will charge at roughly the rate of a level 1 charger during these periods. Typically, an event will last up to 3 hours and occur between 3:00 - 9:00 PM. There can be up to 15 events per month. Customers will be notified in advance of these events and be permitted to opt-out. If a customer opts out of 2 or fewer events and is plugged in at least once per month, they still qualify for the \$50 monthly incentive. A 2-year commitment is required. Event notifications are to be communicated via smartphone app, web portal, email, or text message, usually the day before the event, but sometimes the day of the event. If you are not home and therefore not plugged in during an event, and have not opted-out, that counts as participation.

The demand-response incentives will be paid off-bill after the end of September.

There is no incentive for those who trickle-charge (level 1).

If a home does not have enough space in its panel to accommodate an EV charger and wishes to upgrade electric service, that is out of scope of the program. Service upgrades can run \$5000 or more. Before doing that, it may pay to find out how much room you have or whether you can share a circuit. Perhaps you can install a lower-powered unit than you originally planned.

An Advanced Managed Charging program will be offered beginning in 2023. Details have not yet been finalized.

If someone uses the hardware and installation incentives, but then does not allow the demand-response throttling, and therefore will not collect any of the \$200 incentive, it is not known if the EDC will try to claw back the hardware and installation incentives.

Note: Eversource is maintaining its Connected Solutions branding and migrating existing customers into the new program.

We are planning a virtual meeting for January 25th at 7:00 PM, which will include speakers from PURA and UI.

This is the Eversource <u>splash page</u> with links to apply for the incentives. This is the <u>UI page</u>. There is still being work done on the back end and the application portals will be open by the end of Q1 2022.

Incentives available to Eversource and UI customers only.

# CHEAPR Posts Lowest Numbers of the Year in November

This is the last post of the year for this blog and we wish all of our readers a happy and safe 2022! We hope to kick off our 2022 reporting on all things EV in CT with details of the final EV Rate Design incentives for chargers and charging to be offered through the utilities. The program is slated to go into effect in a few days, but we have not yet seen the final documents.

# Soft November 2021 Rebate Level Led By Toyota

Our state EV purchase incentive program has its slowest month of the year in November with only 69 rebates awarded. The pattern of recent months continued.

The Toyota RAV4 Prime is by far the dominant model with 42 of the 69 rebates, or 61%. The next highest model is the Hyundai

Kona Electric with 9. The Prius Prime, which had been the most rebated model prior to the ascendance of the RAV4 barely registered with only 4 rebates. Toyota is no doubt expending a lot of effort to understand why the Prius has fallen off so. It seems that consumers looking for fuel efficiency are gravitating toward a model that can do more, not to mention have more electric range.

There were no Tesla rebates as the base trim level Model 3 no longer qualifies due to a price increase. There were no Bolt rebates as GM pushes its way through its massive recall. Perhaps by February, we'll begin to see new Bolt sales.



Driven by the RAV4, PHEV rebates accounted for 49 of the 69 rebates.

The Rebate+ incentives continue to be sparse with 2 rebates for used vehicles going to a Nissan Leaf and a Kia Soul.

# Chargers at DOT Open to Public

# Chargers for DOT and Public

Those driving by the CT Department of Transportation campus in Newington may have noticed a bank of chargers looking like the one in the picture at the top of the post (thank you to Paul Braren for the photo).

There are chargers in front of the headquarters building. These will be open to DOT employees, visitors, and the public. There are other chargers in the visitors parking lot (<u>https://www.plugshare.com/location/354128</u>) and in the motor pool lot for state fleet vehicles.

These chargers are manufactured by Enfield, CT company EVSE, LLC. As you can see from the photo, they have a retractable cable, a nice feature which helps avoid the damage that can happen to chargers where the cable is manually wrapped, but in practice is often left on the ground, susceptible to damage.

EVs in the state fleet and EV chargers is the kind of holiday gift we want to receive. The chargers will be turned on by the beginning of January.

# **DEEP Disappointment**

# CHEAPR Continues to Limp Along

At one point during the CHEAPR board meeting held on December 16, one of the board members observed (I'm saying this without sarcasm) that it is harder than it looks to give away money. By that measure, the program is performing with flying colors (that is sarcasm) as it looks to close another year without coming close to spending the budget, a year that was strong for vehicle sales generally. (Unspent funds get rolled over.) There seems to be a lack of urgency by most, though not all, of the board to get the program on track.

# Higher Incentive Retained for the Present

As of June 2021, the base incentive levels were raised by 50%. A BEV now gets an incentive of \$2250, up from the prior level of \$1500. PHEVs were raised from \$500 to \$750. The higher incentive was positioned as a temporary adder, dependent on funds availability and set to sunset at the end of 2021. It comes as absolutely no surprise that depletion of funds was a non-issue. When we first wrote about the new incentives in June, it was an <u>easy call</u> back then. These incentive levels are now designated to remain in force until March (by a 5 to 2 vote) when an analysis and forecast that the board has requested from its consultant will be presented at the next board meeting. My prognostication is that the higher incentive will remain in force at through 2022.

# **Rebate Plus**

The Rebate Plus incentives remain in force. These are so-

called "LMI" incentives, targeted to lower and middle income people. They were not intended to be temporary. The problem has been that very few have been distributed – 3 through the end of October.

# No Raise in MSRP Cap

There was a second motion to raise the MSRP cap to \$45,000 from its current \$42,000. This small raise wouldn't have made much difference, but it failed 4-2, with the majority saying they wanted to wait to review the analysis in March.

### Forecast and Budget

It is no secret that the EV Club and the larger EV Coalition want to see this program positioned more aggressively and break out of the multi-year doldrums. The consultant analysis, as it did last year, will involve forecasting. That is fine as far as it goes, but we should keep in mind that the forecast for 2021 missed by a mile. It can be an input but should not be sacrosanct.

With respect to the budget, while the program is budgeted for \$3 million per year, it had over \$5 million in the bank due to the rollover of past unspent funds. Continuing the program as is pretty much guarantees at least an underspent first half of the year. Even if at the March meeting, the board adopts a more proactive stance, there will still need to be an implementation period. The only thing that represents any change is a new wave of outreach for the Rebate Plus incentives targeting lower income individuals. More outreach is welcome, but we are not expecting more than a modest increase in these incentives.

The proposed changes that would make the most difference are a higher MRSP cap, looser LMI criteria, along with some kind of LMI pre-qualification so that it is cash on the hood. (There

was pushback from DEEP on the pre-qualification based on experience in other states where many went through the prequalification process but did not then use the incentive, and whether that makes the idea an inefficient use of resources.) Even if these changes are implemented, given the backlog of unspent funds and likelihood of being in force for half the year at most, the chance of funds depletion in 2022 is vanishingly small.

# Trends

Rebates follow vehicles, based on eligibility and popularity. The program has shifted toward a plug-in hybrid dominant pattern. PHEVs accounted for the majority of rebates in 8 of 10 months this year, and every month since April. Below is a chart if rebates by vehicle model by month for 2021 that is a bit difficult to read, but it shows the trends driving the changes:



- The RAV4 Prime PHEV looks to be a big hit for Toyota and is the line that shoots above all others on the graph. That has been the single biggest factor, though it has been somewhat offset by a concomitant decline in the Prius Prime. The RAV4 does seem to be cannibalizing Prius sales.
- There were several significant BEV declines in the Tesla Model Y, Model 3, and Chevy Bolt.
- The Model Y had some rebates early in the year, but Tesla has discontinued the base trim level of the vehicle and the other trim levels do not qualify for the rebate.
- The Model 3, where only the base trim level has qualified for the incentive, has been more of a factor. Since Tesla has been experiencing high demand for the Models Y and 3, the company has prioritized delivering the more expensive versions. There are spikes in Model 3 rebates when they deliver a batch. There was a big spike in March and a lesser spark in September. More recently, there has been a price increase in the Standard Range Plus Model 3 and it no longer qualifies for rebates.
- The Chevrolet Bolt had seen improving sales with its recent refresh and lower price point. The recall stopped that dead in its tracks. The new Bolt EUV barely got out of the gate. Bolt rebates have been falling since July and have been zero for the most recent two months. New deliveries are not expected for at least another couple of months or so as GM works through its repair backlog.
- Finally, there are popular new BEVs that exceed the MSRP cap. As it currently stands, the rebate program excludes the first, second, and fourth most popular BEVs currently for sale in the U.S. that together comprise 75% of overall BEV sales (Tesla Models Y and 3, and Ford Mustang Mach-E).

# **EV Coalition Letter to DEEP**

The EV Coalition sent a letter to DEEP to present our concerns and suggestions to the board. These are:

- Raise the MSRP cap to at least \$50,000.
- Extend the temporary higher incentives levels through 2022. (This has been done through March and, as noted, could be extended further.)
- Loosen the income criteria for Rebate Plus. It is supposed to target lower middle income individuals but is in practice limited to low income.
- Add a pre-qualification for Rebate Plus so the rebate can be given at the point of sale and the consumer won't have to float the cash.
- Make all EVs eligible for the Rebate Plus Used. Eligible used vehicles are limited to vehicles that were rebate eligible when new and exclude vehicles manufactured before the program inception in 2015. The point of an MSRP cap in the main program is to control costs by not subsidizing individuals who can afford an expensive car. Where to draw that line is a matter of judgment. In the case of the Rebate Plus Used, there already is an income screen. We don't see the point of restricting vehicle choice and it really feels like an "own goal."
- Do a better job of calling out the main program components on the program home page. We have inquiries come to the EV Club with folks not fully understanding the program because they haven't taken the time to go through the denser material such as the FAQs.
- Delete the misleading headline that a consumer can get a rebate of as high as \$9500. This would require a lowincome individual to buy a new fuel-cell vehicle (the most expensive type of zero-emission vehicle). There have been no fuel cell incentives awarded in the program's history and none are currently for sale in the state.

- Improve dealer compliance. Though our evidence is anecdotal (i.e. people who reach out to the club), there are two concerns here. The first is from dealers who don't seem to want anything to do with the program and tell consumers that it is their responsibility to file for the incentive after the purchase, which, well, no. The second is where a dealer does know how the incentive works but does not want to float the cash for the time period from when the vehicle is delivered and when they get reimbursed by the state. One club-member told us the dealership literally gave him an IOU.
- As you can see from the low vote counts, the board has unfilled positions. 7 of the 8 serving board members were present at the meeting and there are 4 vacancies. The vacancies have existed for months. There is statutory language around who can fill board seats. For example, 3 seats are reserved for "Selection for Industrial Fleet or Transportation Companies," despite the fact that fleet or transportation company vehicles are not eligible for these rebates. One of these slots is filled by one of the Deputy Commissioners of the of Transportation. There Department are no representatives of EV consumers/advocates. There is a dealership representative, a dealership trade association (vacant) representative, but no representatives from the companies seeking to sell direct in this state. The question remains whether this is a board that will ever lean forward to get more EVs on the road.

The club, of course, desires a successful purchase incentive program and would like nothing better than for DEEP to take a deserved bow for accomplishing this. We would like to think we're both working toward the same goals. It doesn't always feel that way. Strategically, we would like a successful program to act as a basis for asking for more support, especially if there are available green-focused funds as there would be if TCI were to pass. The way things are now, color us skeptical. Your comments are welcome.

# Jennifer Granholm Visits CT to Promote EVs, Infrastructure and Jobs

# Publicity Event Held at EVSE, LLC, a Manufacturer of Commercial Grade EV Charging Equipment

Department of Energy Secretary Jennifer Granholm made two appearances in CT on December 2nd to promote the job-creation and clean energy aspects of the recently passed Infrastructure bill. This first stop in Enfield, where the photo was taken, consisted of a tour of the EVSE factory followed by a press conference. The Secretary also dropped a few words about the EV purchase-incentive provisions and another \$6 billion of grant-based EV infrastructure funding for communities contained in the pending Build Back Better legislation. This is part of a 2-day swing through New England.

The community grants are targeted for people who don't live in single family homes or otherwise lack access to charging. The EV purchase incentives were described as "point of purchase," which would be a change from the current tax credit, along with an incentive for used EVs. The Secretary said, "When the president sees stories about climate change, he thinks jobs. He wants to create supply chains here. He wants made in America, used in America, and exported elsewhere."

A nifty short video was produced by her team about her stops in New Hampshire and Maine. <u>https://youtu.be/tenGvHJZrKw</u>

# **CHEAPR October Update**

# Rebates Slip in October

100 rebates were awarded in October, down from 124 in September. Of these rebates, 1 was a Rebate Plus for a used Leaf. (There have only been 3 Rebate Plus awards to date.) Rebate expenditures year to date (excluding admin and dealer rebates) are \$1,394,500. We'll likely be around \$1.7 million for the year, making for the third consecutive year that the program will have been under-spent. If funds continue to roll over, the budget for next year could be over \$6 million. At the very least, that provides a more than comfortable cushion for any prospective changes.

The trend of PHEVs dominating the rebates continues with 70 of the 100 rebates falling under that fuel-type. From our perspective, although we're fine with PHEVs being part of the program, it has a lower emissions impact if they represent the lion's share. This is likely to continue. The biggest rebatedriver continues to be the Toyota RAV4 Prime, accounting for over half of all rebates. It looks to be a major success and appears to have cannibalized its lower-cost stablemate Prius Prime. The PHEV trend is also driven by the lack of new BEV models that qualify under the MSRP cap and GM's continuing saga of the Bolt battery recall (manufacturing has still not restarted and won't this year).

There were 11 Tesla Model 3 rebates, more than any other BEV, but going forward, there will no longer be any Tesla rebates. Tesla slightly reconfigured and raised the price of the base trim level Model 3 about a month ago. According to Tesla.com, the vehicle cost is now \$44,990 before taxes, title, and destination charges. The range is slightly increased to 267 miles. 0-60 acceleration is 5.8 seconds, slow by Tesla standards. As the pipeline of earlier orders gets fulfilled, rebates for the Model 3 will cease as it is now above the \$42,000 cap. In terms of newer BEV models, there was one rebate for the Volkswagen ID.4. Not all of the ID.4 trim levels qualify for the rebate.



There is a meeting of the CHEAPR board later this month. We hope they will take a hard look at program performance now that there are 5 months of data since the revisions were implemented. We hope they will think about ways to improve the Rebate + incentives, where the parameters are set for the main incentive, and how there are other potential toggles to control the burn rate should changes cause the program to run hot. The CT Electric Vehicle Coalition will be making its





Looking Back, Moving Forward

# Looking in the Rearview Camera Back Over a Busy 2021

As the year winds to a close, we take this opportunity to give our sincere thanks to all who have joined us for our meetings, events, advocacy, and information efforts. We look forward to seeing you in 2022!

# Legislation

2021 was a disappointing year for climate legislation with our top priorities of direct sales, TCI, and adoption of the California emission standards for medium and heavy-duty vehicles not making it through the legislature.

The EV Club worked with the other members of the CT EV Coalition on these efforts but the Club was the tip of the spear on direct sales. We wrote <u>blog posts</u> and op-eds such as <u>here</u> (Hartford Courant)and <u>here</u> (CT Mirror). We called, emailed and met with legislators and gave testimony in support of <u>SB 127</u>, a bill we call EV Freedom. Our social media team did an outstanding job promoting direct sales and debunking bad PR meant to sow confusion and doubt about direct sales. Club member Will Cross – also Communications Director for <u>Tesla Owners Club of Connecticut</u> – built a platform, <u>evfreedomct.com</u>, to educate and inform the public about the bill, allow readers to show support by signing a petition and using social media to reach legislators and share excellent EV footage debunking many of the myths being advanced about direct sales.

The EV Freedom Bill made it out of the Transportation Committee but did not get called for a vote in the Senate. We were told that we were 1 vote shy. The bill will be reintroduced by Senator Haskell in 2022.

We held a well-attended <u>press conference</u>, as seen in these photos, with state officials, environmental organizations, labor, and others speaking.







We had support from Tesla and Lucid and were graced by the presence of a Model Y and the Lucid Air. Also, Rivian brought a pre-production R1T to Hartford and gave rides to legislators, followed by a small reception for club-members in <u>New Haven</u>. This was the vehicle's first appearance in the



We thank the bill sponsors, Senator Haskell and Representative Steinberg, our friends at the CT Tesla Owners Club, and all of our members and others who reached out to their representatives, wrote an op-ed, or gave testimony before the legislature.

The only way this bill will pass is if constituents keep the pressure on. 2022 is an election year and it is the time to make our voices heard. We will be asking everyone to reach out again. Each year starts anew. If you have contacted your representatives in the past, memory is fleeting; it is important to do so again. Our state's ability to meet its EV and emission reduction goals depends on it, not to mention that it has overwhelming consumer support. We will be communicating more specifics about the policy agenda for 2022 as they become available.

The footprint of the club continues to expand. We have now become a go-to source for press when comments about EV-related news are sought, including a recent, not as yet published article from CNN.com. The EV Club has also been invited to sit on the policy committee of the (national) Electric Vehicle Association (formerly the Electric Auto Association) even though we are not a chapter. The EVA formally endorses direct sales and will be another resource for us.

#### **Events**

 The EV Club again partnered with Sustainable Fairfield to stage an <u>EV Parade</u> from Westport to Fairfield for National Drive Electric Week (NDEW). This year it was followed by an EV showcase at the parade terminus with speakers.



- We supported as best we could other NDEW events held around the state, such as a successful event at Central Connecticut State University in New Britain.
- We were pleased to again support the Electric Car Guest Drive folks at their ride and drive event in Montgomery, NY.

### Speaking Engagements

- <u>AIACT</u> All electric home and BEVs webinar for architects
- Sustainable Essex Deep dive into EV charging

#### Route 7 EV Corridor <u>dedication</u>



- Municipal Police EV Adoption Workshop
- West Hartford Environment Committee
- Sustainable Weston
- Sierra Club Hartford
- Save the Sound Legislative Panel
- Webinar (Please subscribe to our YouTube Channel!) <u>How</u>
  to Save on an EV and Get Free Charging

(We will be updating our incentive content. There is a lot of news on the near-term horizon with the PURA/utility incentives about to be finalized, and the possibility of major changes to the federal purchase incentive in the Build Back Better bill.)

### Data

- Two updates to the <u>EV Dashboard</u> with more charts added.
- Track of CHEAPR performance, which continues to underperform (that means allocated funds are underspent)
- Financial Analysis of Westport Police Model 3 patrol

car, along with modeling out the financial implications for fleet adoption.

### Select Meeting Speakers

- Marissa Gillett, Chair of Public Utilities Regulatory Authority, spoke about the upcoming <u>EV Rate Design</u>.
- Congressman Himes A look forward to climate legislation
- Citizens Climate Lobby Dr. Roger Kuhns discussed a proposal for a <u>carbon tax</u> with dividend.
- Stephen Wagner of South Windsor Planning and Zoning discussed using <u>zoning regulations</u> to improve charging access
- Kim Pacquette, early Tesla <u>FSD beta tester</u> spoke early in the year, followed by a <u>recent panel</u> of local drivers who have the received the recent upgrade

### Westport Fire Department

EV Club Members loaned their vehicles for <u>training</u> so first responders can learn how to handle the cables and where to cut if necessary. We have had another request, this one from the Bethel Fire Department. We are waiting on a firm date before asking for volunteers. All that is involved is leaving the vehicle for a few hours so they can look at the wiring.



Club members participated in a fund-raiser to help Louisiana residents after the hurricanes. It was a grassroots effort driven by Tesla owners and coordinated with local LA resident, Clean Technica journalist, Johnna Crider.

Finally, this post is being composed on giving Tuesday, though it most likely will not make it live until Wednesday (yep, that's what happened). The EV Club does not take donations, but several of our esteemed partners on the EV Coalition would be happy for any largess, for example, Save the Sound, The Sierra Club, Acadia Center, League of Conservation Voters, Electric Vehicle Association. If you are considering further giving options this year, please consider them.

Please scroll to the bottom of the <u>home page</u> to fill out the form to join the club (free) and sign up for our email blasts inviting you to our virtual meetings and events.