Cutting the Cord – Westport Fire Department EV Training

Maintaining Safety for First Responders to an Accident Involving Electric Vehicles

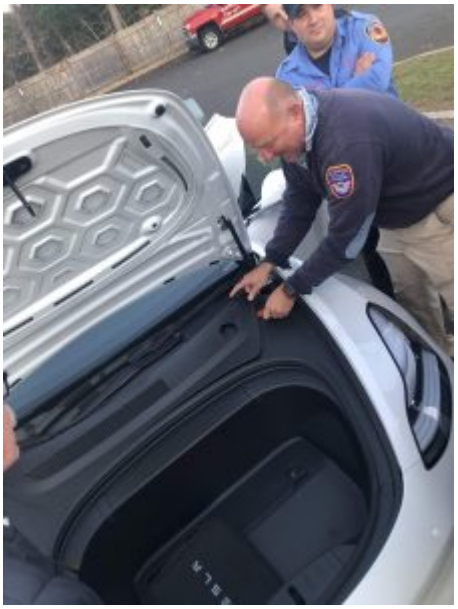
This kind of cord-cutting risks a lot more than losing ESPN.

The Westport Fire Department is conducting staff training on dealing with EVs in an accident, for example, if there is severe damage, if occupants need to be cut out of the car, or if there is a potential for “thermal runaway” (battery igniting). First responders need to know how to safely handle the battery cables, and if necessary, where to cut.

EV Club owners and local dealers loaned their vehicles to the Westport Fire Department for training sessions being conducted this week and next. In this photo, there is a Chevy Volt, Toyota Prius Prime, and Honda Clarity, all of them plug-in hybrids. Other training sessions have battery electric vehicles, including a Jaguar iPace and Tesla Model 3.

The photo at the top of the post, from left to right, is of Brett Kirby, Assistant Chief of the Westport Fire Department, EV Club President Barry Kresch, and Jason Emery, an outside trainer brought in specifically for EV training.

These photos are of the trainer and fire department personnel observing the wiring of a Tesla Model 3.



CHEAPR September ’21

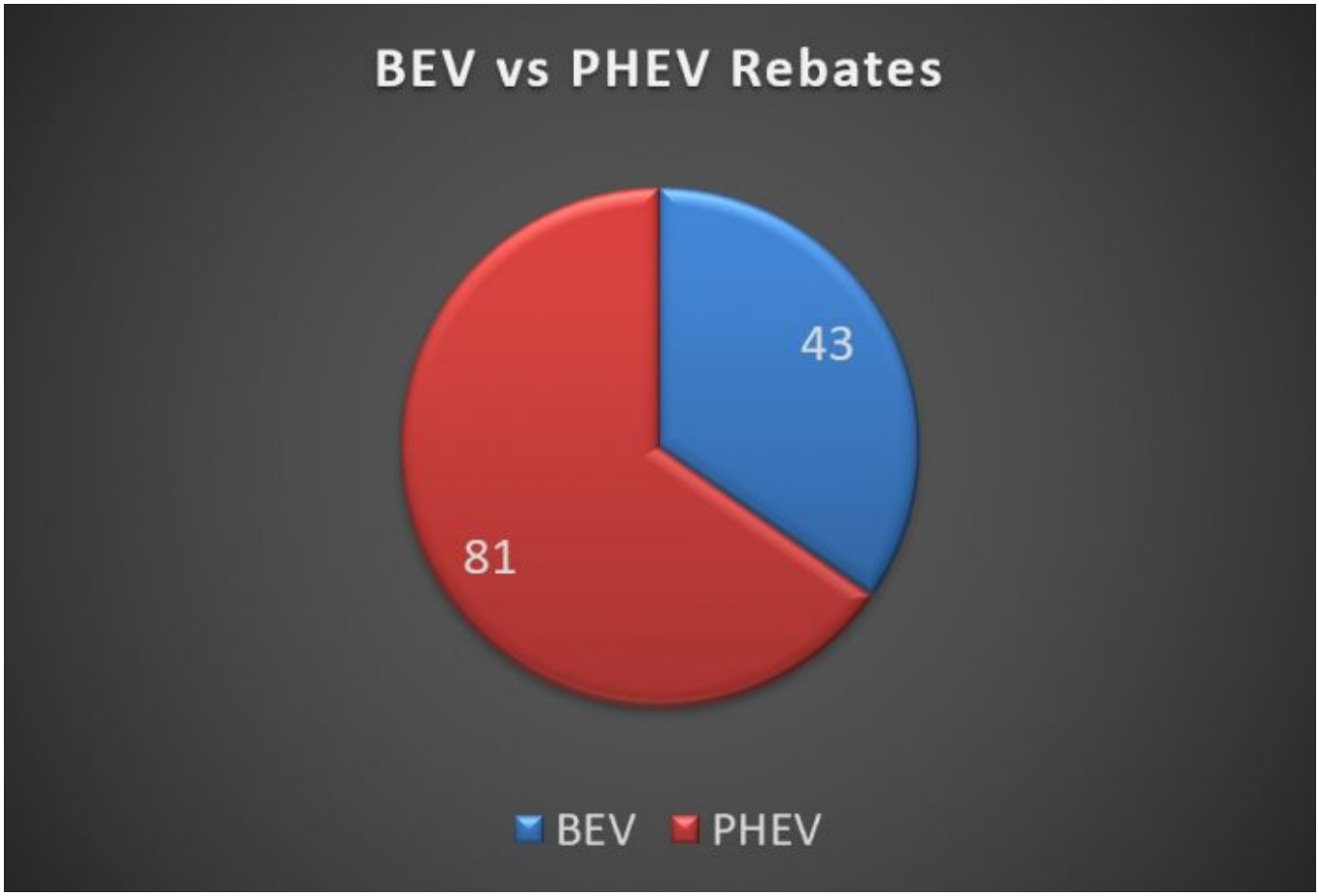
CHEAPR Reporting for September 2021

The top-line CHEAPR stats for September have been released. With 124 rebates, the pattern of recent months continues with more rebates than one year ago when the economy was struggling, but much lower than the corresponding month in 2019 when the old MSRP cap was in place.

The way the reporting works, any of the income-limited Rebate+ incentives are reported as a separate row of data. The count

that is published on the CHEAPR website is that of rebates. There was one of the Plus incentives awarded in September, so the 124 rebates represent 123 vehicles. The Plus rebate was for a new vehicle. There has yet to be a rebate awarded for a used EV.

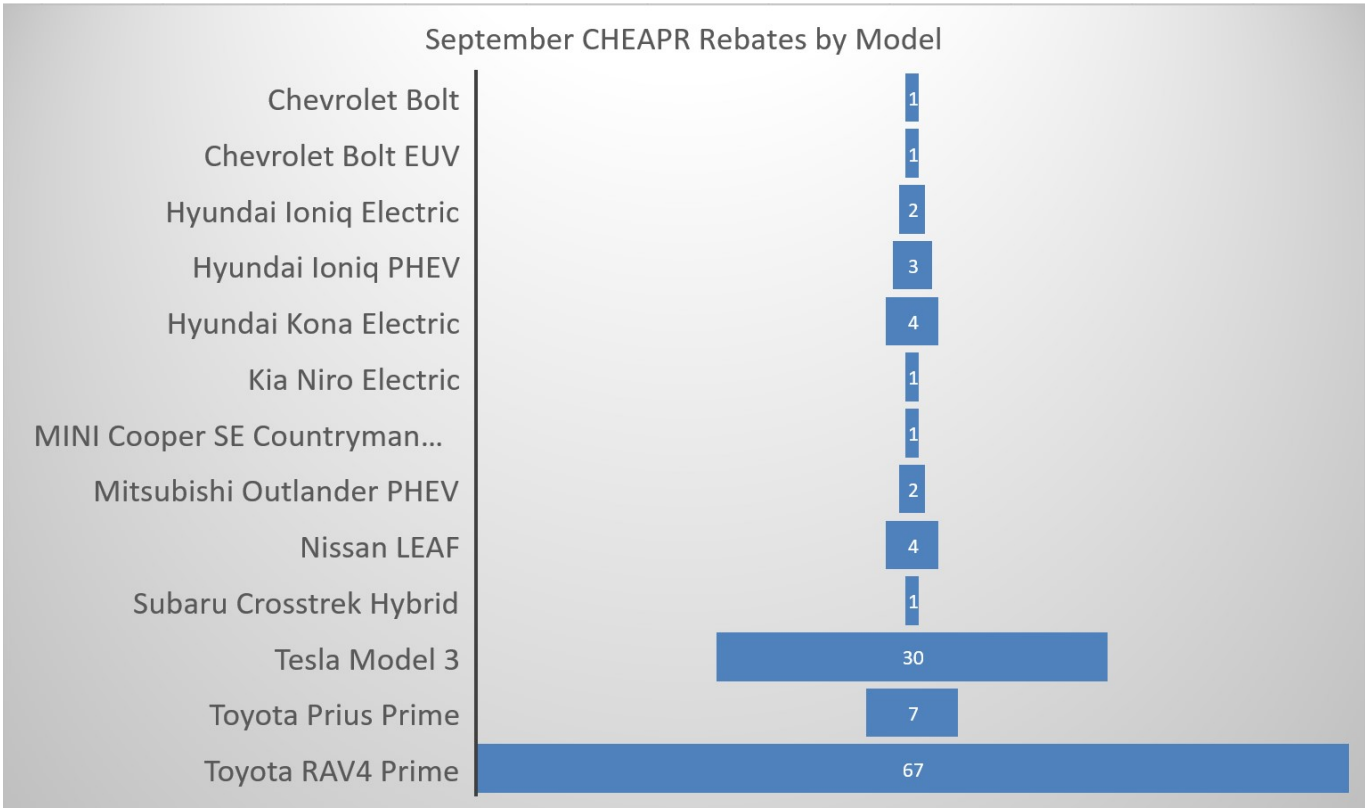
The program has increasingly been shifting toward a predominantly PHEV program. This continues in September with PHEVs representing 81 of the 124 rebates.



Toyota appears to have a big success on its hands with the RAV4 Prime, a PHEV version of its popular SUV. It was by far the most rebated vehicle with 67 rebates accounting for 54% of all rebates. There were 30 Tesla Model 3 rebates. All other models accounted for fewer than 10 rebates. Since RAV4 Prime deliveries have ramped, it seems to have cannibalized sales of the Prius Prime.

The PHEV shift was exacerbated by the travails affecting the Chevy Bolt. The Bolt and the new Bolt EUV had only one rebate each. It will take GM a little time to dig itself out of this hole and recover from any reputational damage. Manufacturing of the Bolt has resumed, but club-member Bolt owners are still waiting for the disposition of their vehicles, whether it is a repair or a buy-out.

Going forward, the most rebated BEV, the Tesla Model 3 SR+, will start to fall out of the data fairly soon as the price was raised and it is now above the MSRP cap. Many of the newer BEVs, such as the Mustang Mach-E, are also above the cap. The chart below shows rebates by vehicle.



Route 7 EV Corridor Designation

Route 7 is now an EV Corridor as officially designated by the U.S. Department of Transportation Federal Highway Administration (FHWA). These alternative fuel corridor (electric is only one of them) designations are intended to raise awareness among current EV owners and the public at large of the access to nearby charging. This is part of a strategy to promote interstate cooperation and a national build out of charging corridors. All corridor designations have to be re-certified every 5 years. This designation currently applies to the section of Route 7 from the I-95 interchange to New Milford.

Along with the designation, the ceremony held at Fodor Farm in Norwalk also acknowledged the donation of a level 2 charging station by JuiceBar, a Connecticut manufacturer (based in Norwalk) of EVSE.

The presenters were (left to right):

Tammy Thornton, Wilton Go Green

Barry Kresch, President, EV Club of CT

Senator Bob Duff (Majority Leader)

Carlo Leone, CT Department of Transportation

Mayor Rilling of Norwalk

Daphne Dixon, President of Live Green CT

First Selectman Dunn of Brookfield

First Selectman Marpe of Westport

Senator Will Haskell (Transportation Committee co-Chair)

Paul Young of JuiceBar

First Look at Managed Charging Incentives

Utility EV Rate Design – Proposed Details for Single Family Residences

The grid at the top of this post comes from a filing by Eversource for its proposed EV charging incentive structure for single family residential homes. It is one piece of the many-legged creature that is the new EV Rate Design Adjudication that was released by the Public Utilities Regulatory Authority (PURA). In turn, the EV Rate Design is but one facet of PURA's larger grid modification docket. To be clear, these incentives come from the utilities.

When the adjudication was released in mid-July, not all of the incentive levels and implementation details had been determined. Working groups were set up to address the unfinished work. This is the month when a lot of the submissions are required.

The EV Rate Design is a big program that includes incentives for residential, commercial, workplace, fleet, and public charging. The incentives include hardware and installation subsidies, make ready, demand charge mitigation, and financial incentives to avoid charging during peak periods. The grid up above is only the single family residential part. This is not

final. It has been submitted by Eversource to PURA for approval. There is a comment period and there could be changes. It is our expectation that changes will likely be at the margin. For that reason, we thought it worthwhile to tease it and these are the provisions.

Please note that this program begins in January 2022 and the subsidies for hardware and installation only apply to purchases after the start of the program. The first set of bullet points are for hardware and installation.

- A household can receive a $500 subsidy to offset the purchase of a smart charger. It has to be a smart charger, meaning WiFi enabled, in order to be able to participate in the program because the utility, or Electric Distribution Company (EDC) as they are referred to, has to be able to see the charger/charging activity. Taking this subsidy requires participation in the demand response or managed charging program. $500 is a meaningful amount as there are smart chargers out there in the $6-700 range. Only approved equipment is eligible. The approval list has not yet been released. This is necessary because the EDC has to know that the unit will function in its particular software environment.
- There is an additional $500 subsidy to offset the cost of bringing a 240 volt line from the panel to the garage. The total cost of this will vary with each residence based on the amperage of the line being pulled and the difficulty and distance in getting from the panel to the garage.
- If your panel does not have enough capacity for an EV charger, or the charger you want, you would have to upgrade your electric service. There is no provision to offset that expense, which can be $5000 or more.
- There is an installed base of dumb chargers among existing EV owners and the program has a provision for

these folks to participate.
    - If the vehicle has telematics access, GM and Tesla being the specific examples cited in the filing, the utility can capture the data via the car without needing the smart charger.
    - If there is not telematics access, the utility will send a device to track it.
- There may be an installed base of smart chargers. The filing doesn't address this. It may be an omission. If the program wants to treat these differently than a dumb charger, then one would have to wait for a determination of whether this equipment is approved.

The next incentives are for participation. The idea is to offer discounts to get customers to charge their EVs during periods of lower electricity demand. This will help load balance the grid.

- For those accepting the hardware and installation incentive, since that comes with the obligation to participate, there is no enrollment incentive.
- For telematics participants, there is a $200 enrollment incentive. For non-telematics "device" participants, the enrollment incentive is $150.
- Charging incentives for smart charger and non-smart charger participants are capped at $200 annually.
    - The program is intended to have 2 levels of participation: demand response and managed charging. Only demand response will be rolled out for 2022. Managed charging will follow 12 months later.

Demand response means that the utility will alert customers when a high demand period is coming. The alert will typically happen 24 hours prior to the event. These events will generally be 3 hour blocks of time occurring between 3 – 9PM in June through September on days when demand spikes. Customers with smart chargers will be opted-in by default but

have the ability to opt-out for a given event in response to an alert. Being opted-in means that the car will either have its charging rate curtailed or will temporarily not be able to charge during the high-demand block of time. If a car is simply not plugged-in, that counts as being opted-in. Customers are permitted up to 2 opt-out events per month to remain eligible for the incentive. Telematics customers will work similarly, except it is up to the customer not to plug-in during these times (since the utility can’t control the charger). The incentive is structured as $50 per month for each of the 4 months, paid annually after the summer.

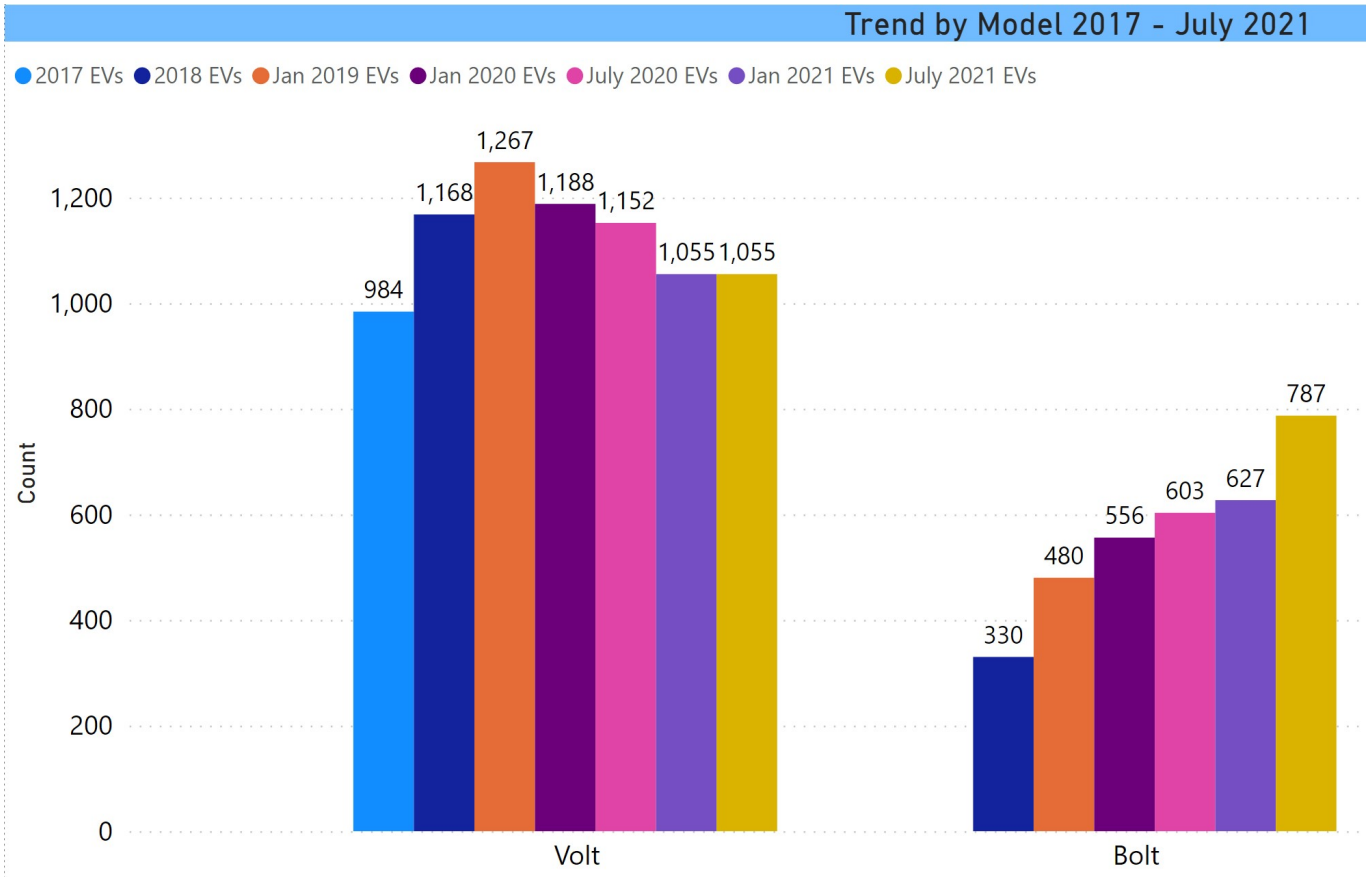
The minimum participation requirement is 24 months. After 24 months, participation continues unless affirmatively withdrawn by the customer. Participation may be terminated prior to 24 months if there are extenuating circumstances, such as customer no longer owning an EV or moving to a new residence.

The more advanced demand charge level allows the utility to throttle the rate of charge as needed. There are no discreet events as with demand response. Customers can switch between tiers in either direction, but must participate for 6 months before switching and then another 6 months before switching again. The EDCs have proposed that a higher incentive be made available to participants in the more advanced managed charging program but have not yet specified how much it will be.

As noted at the start of the post, this plan is not final. We will publish updates as events unfold.

Bolt Owners Still Treading Water

The Chevrolet Bolt recall is inching closer to the one year mark, having started in November of last year. GM expanded the scope of the vehicles being recalled over the course of several stages until in August, it expanded to every Bolt manufactured. That's the bad news/good news. The recall involves every Bolt, but it hasn't been a big seller. The irony is that was beginning to change. Since the introduction of the redesigned model this year which came with a lower price, it has been getting traction as one of the better BEV values. Below is the registration trend of the Bolt in CT, compared with its stablemate Volt that was discontinued in 2019. The most recent numbers in the chart are as of July 1, which was before deliveries began of the Bolt EUV.



There may finally be a ray of hope. ElectricDrive.com reported that GM has identified the cause and that its supplier, LG Chem, has restarted production lines. New battery cells could be reaching dealers by later this month. It is not known how long it will take to work through the recall backlog as well as the resumption of new vehicle manufacturing. The automaker also announced "new diagnostic software" to be deployed over the next 60 days.

The recall does tell us a couple of things. If you read the ElectricDrive piece, the problem is described as a defect in the manufacturing process. There is more detail than that, but the point is that it isn't a problem with the battery design or underlying technology. It is strictly quality control. In the article, it specifies that the problem occurred at the LG plant in Korea. But LG opened a plant in Michigan in 2019 and newer Bolts have batteries manufactured at that facility. The fact that GM included Bolts with batteries manufactured in each facility indicates a more across the board concern. (Batteries are very heavy and expensive to ship. It is much more cost-effective to co-locate battery and vehicle manufacturing. The Michigan facility is likely part of how GM was able to lower the price of the refreshed Bolt. Perhaps it provides some measure of hope that there will be a meaningful battery manufacturing presence in this country, a critical national security technology, as opposed to our usual practice of developing technology and then ceding the manufacturing to the Chinese, e.g. solar panels.)

There are a number of Bolt owners among club members. For a variable number of months now, depending upon which recall batch their vehicle is in, they have been living with a vehicle that needs to be garaged outdoors and used in a range-compromised fashion. The Bolt's 259 mile range is now effectively 163 with the guidance to maintain a battery state of charge of not less than 70 miles and no more than 90%. With this slow-rolling, multi-stage recall, where there is still no

definitive no end in sight, how proactively has GM or its Chevy dealers been communicating with their customers? Bolt owners responded to our query between September 21st and October 4th.

GM has been in a difficult spot, given the expanding scope of the recall, the elusive nature of the cause, and possibly its negotiations to get LG to assume some portion of the liability. Nonetheless, GM and Chevy dealers are responsible to the customers and the general consensus is that there has been a minimal level of communication. The near-silence from GM may be be because it hasn't had much to say, but there does not seem to be much of a communications strategy in place. The number of communications from GM seems to basically be one, or one per recall if the vehicle was in one of the earlier batches before the full scope of the problem became apparent. The content boils down to, "be patient." Some owners are frustrated, while others have more equanimity, with GM getting points for proactively expanding the scope of the recall. The dealers don't seem to be much in the loop. Updates have not been forthcoming as the saga has dragged on. No complimentary loaners have been provided.

Some customers have requested that GM repurchase their vehicle. One advised that there is a YouTube channel called "Wrenching Fool" that provides guidance on how to go about getting a case number. The repurchase requests are being evaluated by GM on a case by case basis and do not appear to have been resolved to this point.

There was one exception to that. Club-member Glen Zackowski reports reaching a favorable repurchase deal with his dealership, Grossman Chevrolet, in Old Saybrook. He will have to wait until the car is fixed. At that point, he will be the owner of a new Bolt EUV. No doubt, staying in the family helped. Customers also report that they like the car. They just wish this process had been made easier for them.

EVs Parade in Fairfield County

30 EVs Parade from Westport to Fairfield

On a glorious early fall day, the EV Club of CT in partnership with the Sustainable Fairfield Task Force held an EV parade from Westport to Fairfield, concluding with an EV showcase.

The parade was born one year ago as a way to hold an in-person event that would be safe during a pandemic. This year, the environment is somewhat better and we added a showcase as another outdoor event. This past weekend was the concluding weekend of National Drive Electric Week and a full slate of showcases and speaking events was held throughout the state. The EV Club participated as an exhibitor or speaker in several.

The Westport Police escorted the parade with their Tesla Model 3 police cruiser.

The police brought 3 of their plug-in vehicles, including a Prius Prime used for parking enforcement, and their newest addition, a Honda Clarity (above), used by the detectives.

There were three of the new Mustang Mach-E's in the parade.

Westport Second Selectman, Jen Tooker, and Representative Jonathan Steinberg were on hand in Westport to kick off the parade.

In the photos below…

Bob Laravie returned this year with his replica 1903 Baker Torpedo. The car is able to be driven and was in the parade. The Torpedo was one of the fastest cars of its time, capable of traveling in excess of 75 MPH. It was the first car to have seat belts.

Barry Kresch and Analiese Paik are in front of the Proterra electric transit bus that belongs to Greater Bridgeport Transit. It is too small to see, but they are holding postcards urging legislators to support the Transportation Climate Initiative in the special session of the legislature.

There have always been a lot of reasons to support TCI but now there is a new and important one. If the Infrastructure and Reconciliation bills pass in Congress, there are a lot of federal funds that will come with state matching requirements. The proceeds from the carbon auction could be used for this match. In other words, TCI could be used to leverage a greater share of available federal dollars. Please contact your state representatives and tell them to support TCI now.

CHEAPR Reporting Back Online

Reporting Resumes After A Hiatus

This blog follows the state EV purchase incentive program, CHEAPR. It's an important part of the state's effort to support EV adoption. The surveys from rebate recipients indicate it is an important factor in deciding to drive electric, and we have no reason to doubt those findings. However, the program's performance has been disappointing for close to two years now.

Early this year, the CHEAPR board approved major changes to the program. The amount of the incentives were raised on a

temporary basis (through the remainder of 2021, funds permitting). Incentives for income-limited individuals were added in the form of a supplemental incentive for new vehicles as well as an incentive for used EVs. There was also a welcome "backdoor" move to permit consumers to use the incentive 2 more times. I say "backdoor" because it was never discussed at a board meeting and was not included in any of the proposals that the board voted on. It just happened.

The program changes took effect on June 7th. We now have reporting through August 31st. The reporting does not yet provide for the new Rebate+ incentives. However, it was revealed at the board meeting that over the 12 weeks since the start of the new program, there was only 1 income-limited rebate awarded. This was an "Rebate+ New" rebate, the supplemental rebate for a new EV. The most convincing reason offered for this was that the public assistance programs that qualify an individual's eligibility apply to people who simply don't have enough income. It was suggested that the program should be recalibrate, possibly with an income-based qualifier. The convenience (easier to document) of the public assistance formulation may just not hit the right target.

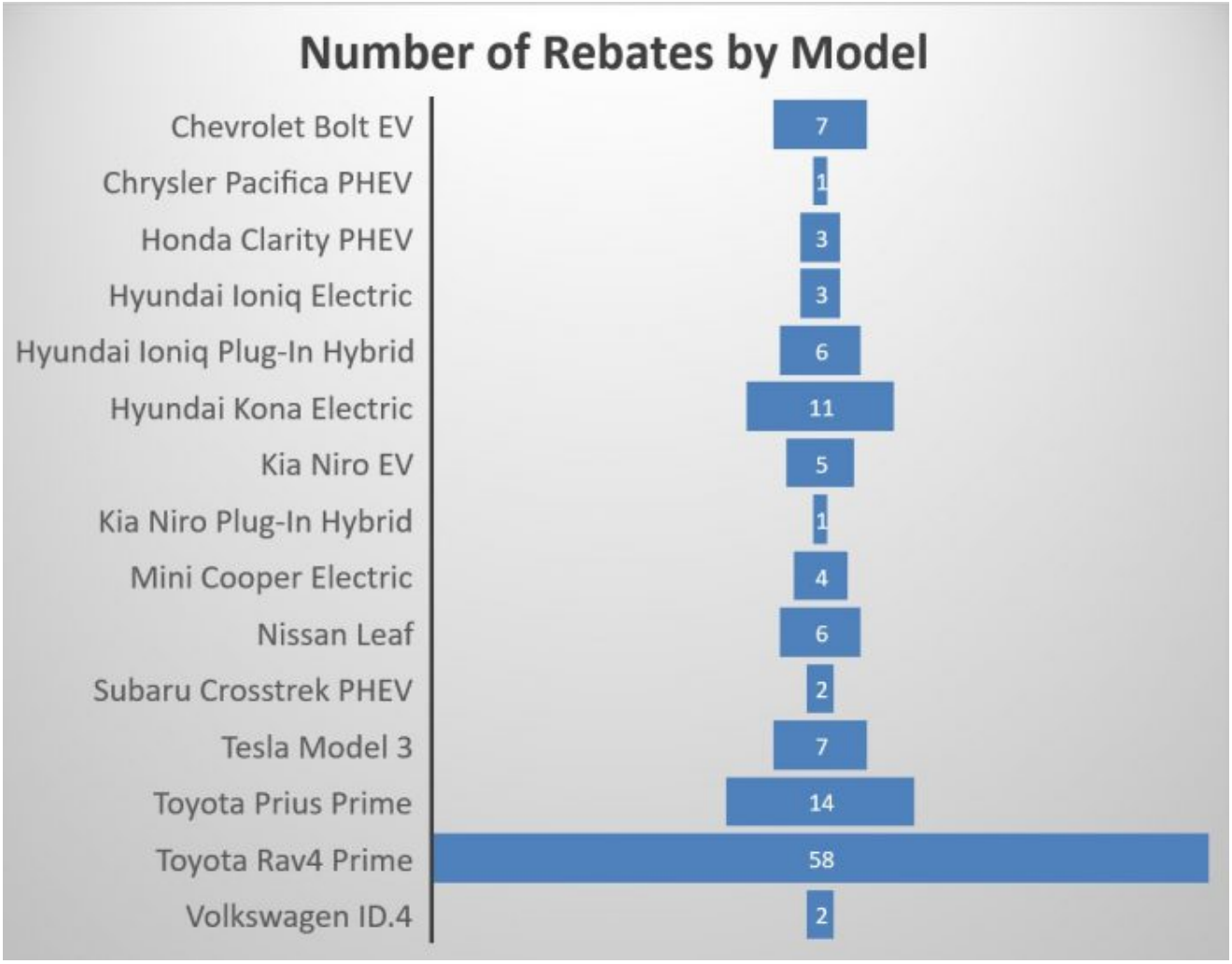
The other proposed explanation is that the initial birthing pains plus insufficient outreach and a lack of collaterals has brought us to this place. DEEP resisted making any changes until the end of the year review. 1 rebate in 12 weeks sounds like a convincing data point to us.

Another "backdoor" issue, in that as with the extra opportunities to use the rebate, it was never discussed but just appeared, is the restriction on vehicle models for used rebates. If there is already the public assistance qualifier in place, we don't see the point of further restrictions. The eligible models for the regular CHEAPR have pretty much been ported over to the used program with the additional restriction that no vehicle manufactured before the inception of CHEAPR can qualify. A very low income population is likely

going to buy an older car with high mileage.

Over the past three months, the rebate levels have not quite recovered to where they were two years ago (429 vs. 467). Rebate numbers declined dramatically last year in the teeth of the pandemic. (The number from 2 years ago is with the previous higher MSRP cap in place.)

70% of the rebates over the past 3 months have been for PHEVs. To see the program turn so heavily into a PHEV rebate program is distressing but not surprising. Many of the popular BEVs, especially those with larger battery packs, are more than the $42K limit. The reason for this trend is very obvious: The Toyota RAV4 Prime. It accounted for 58 of 130 rebates and seems to be cannibalizing the Prius Prime to some degree. We will watch it over the next few months. The new Jeep Wrangler PHEV is above the $42K cap. The Chevy Bolt, which had been doing better since it was refreshed this year, had a big drop, expected given the travails of the fires and the extensive recall.



The board meetings are now scheduled on a quarterly basis, so new developments are not likely forthcoming for some time. The public audience was unusually vocal this meeting. In particular, there were many requests for the MSRP cap to be raised at least back to where it used to be ($50K). We will update with more complete reporting when available.

Westport Police Led The Way,

And Will Be Again Next Week

Tesla Tech Enables Innovative Solutions to Law Enforcement Customization

The Westport Police were out in front of the market when they acquired a Model 3 for patrol car duty in December 2019.

What is becoming apparent is that their diligence and attention to detail placed them further ahead than others who made a similar move after they did.

Case in point – how does one handle the police electronics. In a conventional ICE police car, the vehicle is equipped with a heavy-duty alternator. The Tesla doesn't have an alternator – what to do?

One option, as was done with a Model Y that went into service this past July in Eden Prairie, Minnesota, is to add a second 12-volt battery. This photo was published in DriveElectricCanada.ca. It shows the additional battery parked tidily in the frunk.

While that works, a more elegant solution was arrived at in Westport, which was to wire the police electronics directly into the large battery. The police report this being a trivial drain. It required the police and Whelen Engineering working with Tesla to do some recoding to make it happen.

The point is that there is a lot there when it comes to the potential to re-purposing the native tech in a Tesla. Westport has also been able to incorporate some of the camera and computing power into the license plate reader.

We don’t know how widely this knowledge about these opportunities to lower the cost of customization is being disseminated, though the Westport Police have more than done their part in terms of being generous with their time and sharing what they have learned.

The police have the approval for another electric patrol car, which will most likely be the Model Y.

Model 3 to Lead EV Parade

Officer Charles Sampson, who was the project leader for the Tesla patrol car, will be driving the Model 3 as the escort for the EV parade on October 2nd. There will be an opportunity to check out the vehicle before the start of the parade. The parade departs from the Westport Train Station at 10 AM. Registration is still open at https://bit.ly/GreenWheels

Drivers should arrive between 9 and 9:30 to give us time to organize.

National Drive Electric Week Events

A Selection of NDEW Events in CT

National Drive Electric Week is soon to be in full swing with a range of events throughout the state. This is in marked contrast to last year when the pre-vaccination pandemic had a chilling effect. To be sure, pandemic restrictions are in place, but with events being out of doors, a relatively high vaccination rate in CT, and masking and social distancing requirements in place, it looks to be an active, but safe, time to resume (semi) in-person EVangelizing.

EV owners requested to showcase their vehicles at all of these shows. All events are free unless otherwise noted.

The home page for National Drive Electric Week is https://driveelectricweek.org/index

You can enter a city or zip code to find events near you. Most organizers are glad to welcome more EV owners.

Westport/Fairfield – Green Wheels EV Parade and Showcase

Oct 2, 2021 10 AM – 2 PM

There will be an EV parade beginning at the Westport Metro North Train Station and ending at the Bob's Plaza Lot 889 Post Road, Fairfield, CT. This is similar to the parade that was held last year. However, unlike last year, there will be an EV showcase at the terminus.

This event is produced by the Sustainable Fairfield Task Force and the EV Club of CT.

This is where to register.

East Hampton – Portland EV Showcase

September 25, 2021 12 PM – 3 PM

Rain Date September 26, 2021

East Hampton High School

15 North Maple Street East Hampton, CT

The East Hampton and Portland Clean Energy Task Forces are organizing the Third Annual "Electric Car Show 2021" on **Saturday, September 25, 2021** at the East Hampton High School at 15 North Maple St. from 12 noon to 3 pm (Rain Date is Sunday, September 26th). The show is part of the National Drive Electric Week program. Come join them as they showcase electric, hybrid, and alternative fuel cars from private owners and various dealerships.

Willimantic EV Ride and Drive

The New England Electric Auto Association will be hosting an electric car ride and drive event at Jillson Square Park in Willimantic Connecticut on **Sunday, September 26th** from 12:30 to 5 pm. Several dealers along with actual EV owners will be present for test drives. A solar installer will also be present. This is a great opportunity to test out an electric vehicle in a friendly, no-pressure environment. Please go to www.neeaa.org for more information. Dinner at a nearby restaurant after the event.

Event Page: https://driveelectricweek.org/event?eventid=2877

Middletown EV Ride and Drive

The New England Electric Auto Association is hosting an electric car show and ride and drive event on **Sunday, October 3rd** from 1-5 pm at Harbor Park in Middletown Connecticut. Several dealers will be present for test drives. A solar installer will also be present. This is a great opportunity to see an electric vehicle in a friendly, non-sales environment. Dinner afterward at a nearby restaurant.

Harbor Park – Harbor Dr, Middletown, CT 06457

Event Page: https://driveelectricweek.org/event?eventid=2904

Governor Lamont Meets with EV Club

The photo above shows the governor meeting with Bruce Becker, Analiese Paik, and Barry Kresch of the EV Club of CT. This was a meeting about how the environmental community can more effectively mobilize to support a progressive environmental agenda.