The Stealth Patrol — EVs for Police

Post by Barry Kresch

Top photo courtesy of the Boulder County Sheriff's Department

Police Look to EVs for Fuel Savings and Performance

The public safety world is on a roll when it comes to electrification. Drive Electric Colorado hosted a virtual panel this week about the electrification of police vehicles and got 138 attendees, indicative of the high level of interest.

Along with yours truly, the panelists were Chief Foti Koskinas and Officer Charles Sampson from Westport, Chief Robert Kalamaris of Fairfield, Detective Sergeant Clay Leak of the Boulder County Sheriff's Office in CO, and Chief Jeff Christiansen of Linn Creek, MO (near the Lake of the Ozarks). Sgt. Leak and I were the ones who have been compiling data, while the others spoke of their purchase, customization, and service use experiences. Boulder has acquired a Tesla Model Y. Linn Creek has a Tesla Model 3.

Westport Acquires Third Tesla Patrol Car

Westport, of course, was an early adopter, having purchased a Tesla Model 3 in 2019, followed by a Model Y in 2021 (which is still in the customization process but should be entering service in July), and, drumroll, the town has purchased a second Model Y. This brings the total number of plug-in vehicles in the Police Fleet to to 7. Chief Foti said that the

police department has decreased its gasoline consumption by 18% over the past 7 years as a result of incorporating electric vehicles and more fuel-efficient ICE vehicles, such as the Ford Interceptor Hybrid. Emergency Medical Services in Westport are run by the police and they are looking into an electric ambulance.

Westport was the first department to enter into an NDA with Tesla so that they and their vendors could work with Tesla to do some recoding to take advantage of the native tech and wire most of the accessories directly into the large battery. Unlike some other <u>departments</u>, they did not need to add a second 12-volt battery for this purpose. Due to this, Westport had an easier time with the law enforcement customization than the others, but growing pains are part of the game. It was mentioned that Tesla has now created an internal team devoted to law enforcement so perhaps others will be going this route as well.

The Model Y is a pricier option than the Model 3. The advantages cited were the extra room for drivers, cargo, a prisoner cage, and the higher ground clearance. At 6.6 inches, it isn't that high but a bit more than an inch higher than the 3. Regarding the cargo area, the car was praised for its efficient use of space with the trunk, sub-trunk, and frunk.

Westport has a <u>municipal directive</u> to buy electric whenever suitable vehicles are available. Not an ordinance, but it gets the job done.

There were some complaints about having enough seat room for fully equipped officers, though not that severe. On the other hand, most of the officers were blown away by how much fun the vehicle is to drive.

It was mentioned by the officers on the panel that several members of their respective forces bought an EV for personal use after having had the chance to drive the Tesla at work.

Which EVs Could Be Patrol Cars

While all of the panelists were pleased with the performance of their Teslas, coupled with its high safety rating, robust charging network, and 8 year/100,000 mile battery/powertrain warranty, there were several other options that were in the consideration set.

- Ford Mustang Mach-E \$56K for the 270 mile range AWD model
- Rivian R1S Range of 260 320+ (according to the Rivian website) and starting at \$72.5K
- Audi e-tron 222 mile range, \$67K for base AWD model
- Jaguar I-PACE 234 mile range, \$70K for base AWD model
- Ford F150 Lightning 4 trim levels starting anywhere from \$40K \$91K. Range from 230 320 miles.

Community Relations

The Teslas have been an astounding success in terms of community relations. Chief Foti expounded on this for the EV Club when he spoke to us a couple of years ago, informing us that he has received hundreds of inquiries from all over the world. Detective Sgt. Leak of Boulder, in his presentation, described their Model Y as a "great success, huge ice-breaker, tons of community engagement." They put a QR code on the car which takes people to an informational website. It is a little hard to see, but the QR code is visible in the photo on the bottom right. It is at the rear of the vehicle to the right of the license plate.

Concluding thoughts

- Adopting EVs is proving to be a rousing success for police departments around the country.
- The Teslas have been a huge hit. Other vehicles are in the pipeline and it will be interesting to see the

comparative reports going forward.

- Going electric, just like with consumers, has a higher acquisition cost but saves money. That is punctuated with gas prices at current levels.
- Hybrids are also a money-saving option, but not to the same degree as electric. And they, like any ICE, will spend more time out of service than an EV.
- There are other police use cases besides patrol vehicles and an array of available vehicles that can be matched as appropriate.
- The community relations aspect has proven to be an unplanned benefit.

More photos of the Boulder MY below. We'll publish photos of the Westport vehicle and hopefully video as well.









Time To Register For Utility Incentives

Registration Flow Fixes Made

If you have been thinking of registering your EV or charger for the incentives offered through Eversource and United Illuminating, but have been hesitant due to reports of the not-ready-for-prime-time registration funnel, the corrective website development work has been finished and it should be good to go, whether registering a new charger or going the telematics route.

As reported to us by Eversource and UI (the EDCs, a.k.a. utilities) early in the year, due to the finalization of the program occurring around Thanksgiving of 2021, and its starting point of January 1, 2022, there was insufficient time to properly build out the website. This is further complicated by there being 3 parties involved as the EDCs outsource the management of the program. After they presented to the club in January, a number of members tried to register regardless and encountered all sorts of adventures, including finding themselves on an out of state EDC website.

If you register, you will notice that you will be taken from the EDC domain to an EDC subdomain on the vendor's domain. Your EDC account number will serve to link you. Pro tip — when you enter the account number, don't leave spaces. If you do, the registration won't take and the site isn't clear regarding what isn't working.

Have a graphic of your vehicle registration for uploading.

Keep in mind the charger incentives apply only to approved charger units and, similarly, telematics applies to approved vehicles. See this <u>page</u>, which has info for both Eversource and UI.

Feel free to let us know about your experiences. We can forward reports of issues to the EDCs.

This takes you to <u>Eversource Connected Solutions</u>. This is the page for <u>UI residential</u>.

The New CHEAPR

CHEAPR Board Meets Following Passage of Public Act 22-25

Following the passage of SB-4/Public Act 22-25, the Department of Energy and Environmental Protection (DEEP) and the CHEAPR board met on June 16th. The legislation made extensive changes to the state's purchase incentive program, which we have detailed in earlier posts such as this one. Now comes the time for rule making to fill in the gaps and the implementation logistics. Though the legislation has an effective date of July 1, the fact is this will be a work in progress for the rest of the year. So with that preamble, this what we know to this point as well as our thoughts about changes we would like to see that follow the new legislation

MSRP Cap and Other Changes

- The MSRP cap increase to \$50,000 is the easiest to implement and it should happen at some point over the summer. We will update everyone when that is the case. (**Update**: This is now in place and updated on the CHEAPR website.)
- The enhanced funding from the additional clean air registration fees and proceeds from the Regional Greenhouse Gas Initiative proceeds begins next year. However, the program has been so under spent, and there is still an implementation period, it is unlikely to deplete funds before the new funding stream begins. DEEP is currently sitting on over \$5MM of funds, well above current needs. New expenditures flowing from program changes will be folded into the program as they are ready between summer and the end of the year. It is our bet that the year will end with a surplus.
- DEEP is preparing an RFI for the new e-bike incentive with projected implementation by the end of the year.
- The income limited (Rebate+) incentives will be transitioning from an after the fact reimbursement to a pre-qualification/voucher program. This is great news. It requires a new process be developed and implemented, which will take at least until Q4, though technically, the eligibility requirements will have been changed before then. In other words, some of the folks becoming newly eligible could access the incentive but would have to float the cash.
- Expanded eligibility to municipalities, businesses, nonprofits, and tribal entities are designated as "midterm" changes and will likely happen in several month's time.

This graphic from DEEP indicates which new EVs will be rebateeligible as a result of the change in the MSRP cap. Keep in mind that eligibility is determined by the base price of a particular trim level. Ordering options does not disqualify a vehicle from being eligible. Buying a trim level with an MSRP above the limit would. Almost all vehicles nowadays have multiple trim levels. Although we don't recommend doing this, if you pay a dealership premium over MSRP, that does not count towards the cap. The graphic is based on registrations from 2021. It will not pick up the newest vehicles which doesn't mean they are not (or should not be) included! If you encounter a problem in obtaining a rebate for which you should be eligible, please let us know.

Expected Additions*				
Make	Model	Туре	MY	MSRP
BMW	3-Series Plug in	PHEV	2022	\$42,950
Audi	Q5 Plug In	PHEV	2022	\$43,300
Ford	Mustang Mach-E	BEV	2022	\$43,895
Audi	Q4 e-Tron	BEV	2022	\$43,900
BMW	i3	BEV	2021	\$44,450
Tesla	Model 3: RWD	BEV	2022	\$46,990
Polestar	2 LR-SM	BEV	2022	\$48,400
Volvo	s60 Plug In	PHEV	2022	\$47,650
BMW	i3 REx	PHEV	2021	\$48,300
BMW	X3	PHEV	2021	\$49,545

Rebate Structure

- It is DEEP's responsibility to determine rebate structure and amount. We expect the amount of the income-limited rebates to increase.
- The consumer's first interaction with CHEAPR is likely to be with the home page and what they see there is not what most people will get. For some reason, DEEP, from the beginning, has been intent on selling the highest possible rebate number that only applies to a minority (or zero in the case of fuel cell) of people.
- There has been an overly complicated multi-tier rebate structure with base, adders, and supplements. A simpler structure of standard rebate, Rebate+ New, Rebate+ Used would be preferred. Rebate+ New would simply be higher than the standard rebate. Each of these would have a BEV/PHEV version. That's enough.
- For Rebate+ Used, since recipients of this incentive are already income screened, don't restrict eligible vehicles. Let's make it easy for people to use this by not restricting it to vehicles that were originally eligible for a standard CHEAPR rebate as is now the case. There is some concern about battery degradation for older vehicles. There are tools available to address this, which dealers should be encouraged to adopt.

Reporting

- There have been inconsistencies in the reporting from time to time. For example, in the recently released April data, the Tableau chart has 51 rebates. The Excel file has 59 rebate submissions (and 48 sales).
- Rebate+ New is reported as a separate line. So the number of rebates exceeds the number of people receiving rebates. There have been so few of them that it hasn't made much difference. If the new LMI rebates are more successful, it will color the data. If the suggestion about Rebate+ noted above is adopted, it would solve this.
- Add new fields for "Rebate Type" and "Dealership." The

former will make it easier to parse the data. The latter will save the FOIA exercise that we go through each year.

Rebate Utilization

- DEEP is investigating reports that some of the finance companies that hold title to the vehicle for leasing customers are not participating in the rebate. Dealer representation on the board, possibly in concert with their affiliated manufacturers, should be proactive about working upstream with the finance companies to change this.
- Dealers should take it upon themselves to be proactive about alerting DEEP when new eligible vehicles or new model years of eligible vehicles are about to start delivery. That way consumers won't get caught as a result of a dealer not being able to process a rebate because the database has not been updated.
- DEEP issues a forecast periodically to project expenditures and use that for guidance in setting program parameters. The actual expenditures have come in substantially below the forecast every year since the current regimen was established in 2019. For various reasons, that may not continue to be the case. But even if the program is running hot, it will be easy to identify in plenty of time to make adjustments and avoid funds depletion.

EVolunteers Requested

EV Drivers Could Relieve the Burden of High Gas Prices in Delivering Food to the Needy

Food Rescue US is an organization that reduces food insecurity by transferring excess food from grocers and restaurants to social service agencies that feed people in need.

Using an app, volunteer drivers "rescue" food from donors. A typical rescue takes 30 minutes to an hour.

The problem in our time of burdensome inflation is that the organization has been losing volunteers due to the expenses caused by record high gas prices. EVs can affordably fill the bill.

Food Rescue US is active in Fairfield, Litchfield, and New London Counties, as well as West Hartford.

Arrangements are flexible and volunteers can make as few or as many trips as they choose. If anyone can spare some time to help the hungry, please register at this link: https://bit.ly/EVfoodres

Your time and good will is appreciated!

Cross Country Electric Drive

The photo at the top is from the kickoff event for a cross country electric drive. The two women attired in pink are Daphne Dixon, Executive Director of Live Green CT, who is

making the drive, and Alyssa Murphy, also of Live Green, who is accompanying her. Ford has loaned a Mustang Mach-E for the trip that will conclude in Sacramento, where Dixon originally hails from, after stops in CT, NY, PA, MD, DC, VA, WV, KY, TN, AR, TX, NM, AZ, UT, and 8 cities in CA, 27 cities in total.

Range anxiety isn't completely a thing of the past, but it is much less of a concern than it used to be with longer range battery packs and more public charging stations. There will be continued improvement on the charging access front in the coming years with Infrastructure Bill funds and state incentives. Of course, there is no time like the present to make this drive with unusually high gas prices causing more people to look seriously at EVs.

Speakers, from left to right, are Marriott Dowden of United Illuminating, Jim Motavalli who is an automotive columnist and author, Barry Kresch of EV Club CT, Matt Macunas from CT Green Bank, and Charles Rothenberger of Save the Sound.

D-Day for the trip was June 6. It concludes June 27th. Clean Cities chapters will be organizing press events at each stop. You can follow their progress on the <u>Life on the EV Highway</u> Facebook page. As Dixon said, she is "hoping to reduce range anxiety one state at a time."

CHEAPR Update April 2022

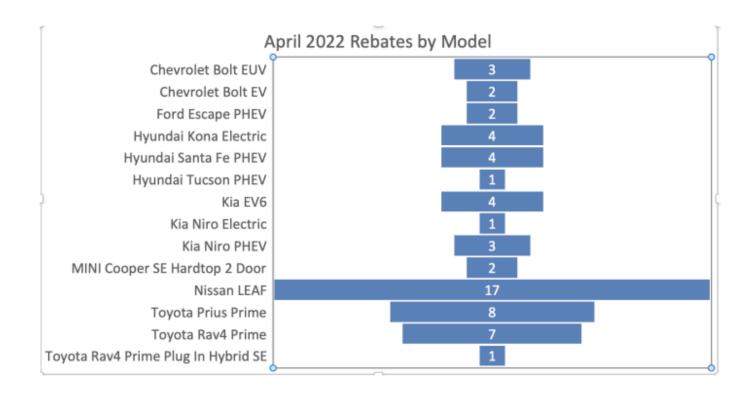
Treading Water - Awaiting New

Program Implementation

The data for April have been posted, a low number of 51 rebates. We are in a holding pattern at this point as we await the particulars of the implementation of changes mandated in Public Act 22-25 (a.k.a. SB-4). Rebates declined from 114 in March. There were no income-limited Rebate+ incentives awarded.

During these supply-constrained times, the rebates by model often fluctuate and that was the case in April with the large decline in the RAV4 Prime from 42 to 8. (Note: the numbers in the chart below do not tie back to the total. That is because there are slightly different numbers in the Tableau graphic on the CHEAPR website than the accompanying spreadsheet.) Given that the RAV4 Prime has been so dominant, it actually tilted the balance to a slightly higher number of BEVs, driven by a relatively strong number for the Nissan Leaf and signs of life for the Chevy Bolt and Kia EV6.

Of course, the new legislation is expected to dramatically change things. There are specifics that DEEP has to decide, as well as implementation logistics to be developed. There is a CHEAPR board meeting in a few weeks and we will report on any specific announcements made at that time. Our review of the legislation can be found here.



New Level 3 Chargers Coming to Highway Service Areas This Summer

Godot Is Soon To Arrive

This is the level 3 version of a post about out-of-service level 2 chargers from April 21st.

Level 3 chargers have been sitting lonely, forlornly, and non-functionally at several of the service areas on our major highways. And its been that way for roughly 4 years. We now have the background and going forward plans. This post refers to the non-Tesla chargers.

The chargers at the service centers we are aware of,

specifically the I-95 service center in Darien and the Merritt Parkway northbound service center in Greenwich, were originally installed by Eversource/DEEP working with the Department of Transportation in 2016. They have been out of service ("decommissioned") since 2018. I'm sure there is detail we don't know since those chargers were barely ever operational.

New Level 3 Fast Charger Installations

The state leases the service centers to a company called Project Service, LLC, based in New Haven, which also manages them. PS responded to our inquiry, saying that they are working with a new partner to install new DCFC equipment at their plazas. There are 6 sites where work is underway and installation is expected to be complete sometime during this summer. The 6 service areas are I-95 Fairfield (both directions), I-95 Madison (both directions), Merritt Parkway New Canaan (southbound), and Merritt Parkway Greenwich (northbound).

There are also Tesla chargers at PS service centers. These have been operational and are in the process of being upgraded.

DOT Survey

A larger, separate initiative, deploying the funding that is coming from the federal infrastructure legislation is being managed by the Department of Transportation and is in the planning stages. These funds are going to support level 3 chargers along major highway corridors. Public input is being sought as plans are further developed. There is currently a survey live on their website here. (It is a very high-level survey that takes 2 minutes.) The link will remain live

A Bolt Owner Has A Happy Ending

Interminable Bolt Recall May Finally Be Coming To An End

The lengthy, slow-rolling nature of the recall that ultimately involved every Chevy Bolt that GM ever built began as far back as late 2020. There were infrequent battery fires, the cause of which was difficult to pin down, along with an inability to identify which vehicles were at risk. And so in stages, the recall involved vehicles from different model years, with batteries from its supplier, LG Chem, that were built in Korea and then later at a plant in Michigan. Add to that the fact that GM wasn't telling its customers (or dealers) much. True, they were trying to figure it out, but arguably they should have done a much better job of keeping in touch with their customers. Some of this was detailed in an earlier blog post from last year which characterized GM owners as "treading water." Some owners displayed considerable patience; others were frustrated.

At this point, the situation is slowly resolving itself and this is a story from a club member and Bolt owner, Nancy Iddings, where all's well that ends well. This is from an email that Nancy sent to the club, lightly edited and used with permission.

Working Through the Options

After going back and forth in September — October of 2021 with my GM concierge, Courtney, about what I wanted to do with my 2019 Bolt with the defective battery, I told her I wanted the Repurchase choice she gave me because, at that time, I wasn't getting a clear idea of when the batteries would be replaced even though that was a remedy I could live with. She said that was fine, and she would send all my documentation I had sent her over to the GM Repurchase Department, which she did. It would take at least 6 weeks for them to respond. Ok.

Around November I began to communicate with Hamden Chevy. At that point they had little knowledge of when a new battery (module) would arrive but they would get back to me. After a few weeks went by, I called, and Steve the Service Manager said he was "thinking of me" but still didn't know when GM would ship batteries. So I just had to be patient and hope for best. Then around the 3rd week in December, he called me and said batteries were on their way. I was 7th in line. Great! By the first part of January they scheduled me for replacement, I took "Little EV' in, they gave me a loaner at no cost (just gas, it was so strange to have to top it off when I returned ICE car because I hadn't used a gas pump in three years). So replacement went well, I was happy to finally have remedy.

Possibility of a Buyback or Swap An Option Even After Recall Fix

Meanwhile a week later the GM Repurchase Agent, Lisa, called. She told me that she would be glad to help with a Buyback of my 2019 Bolt LT or an MSRP Swap. I explained that GM and Hamden Chevy had replaced my battery already (which met the CT Lemon law requirements) and all was good. So I assumed GM would rescind on the buyback or swap. Nope, it didn't matter, she said. GM would still buyback my Bolt or do an MSRP swap. Hmmm...okay. I was curious to see what they would pay for buyback, so I sent photos of car to them and more paperwork. GM sent a buyback offer for \$26,300. (I had low mileage on the

car). Pretty good since with rebates and tax credits available in 2019 I really only "paid" \$29,000 for 2019 Bolt. But in this car market, what would I buy because I still wanted an EV? (Hyundais are nice but around \$45,000). So I asked if I can still get the MSRP swap. I had communicated with others who had done this on a Bolt FB group and it seemed viable. She explained I could swap into ANY GM product but I love the Bolt.

Lisa explained GM had produced 2,500 of the 2022 Bolt EUVs (which is what I wanted) in November 2021. She said I would have to turn down Buyback but then just go to a Chevy dealer and tag a new car, which I did: a 2022 Bolt EUV in Ice Blue from the "swap list." Doug Shatas, the EV guy at Hamden Chevy, was great, and we went through process step-by-step, along with Lisa at GM. So now we are into mid-February so again I waited. Both Lisa at GM and Doug at Hamden Chevy sent emails on where my car was and when it would arrive by train. Finally last week got call from Doug that it was at the dealership. Here's where it gets better. Because the MSRP on my 2019 Bolt was \$40,000 and the MSRP on the new Bolt EUV 2022 was \$35,000 I ended getting not only the NEW CAR but a check for \$3545! I had to pay the destination charge and document fee but that's it! So I picked up car yesterday in Hamden and I get my check from GM (has to clear) next week. To sav I am a happy camper is an understatement. I'm sending you pics of my old Bolt and the new Bolt. It was a rocky adventure sometimes but I couldn't be happier with Hamden CHEVY and GM. Long story but thought you would like to know. We all love happy endings.

Pix clockwise from upper left. New Bolt EUV, Nancy with new Bolt, Interior of Bolt EUV, 2019 recalled/repaired Bolt









Presentation for Utility Commercial Incentives for EV Charging and Installation

Eversource UI - Commercial EV Charging for EV Club of CT
5.2022 FINAL

Rivian In The House

Members of Rivian Owners Club Northeast to Bring Their Vehicles to Bridgeport on Saturday

The EV startup Rivian, manufacturer of the R1T pickup truck and R1S EUV (along with an electric delivery van for Amazon), will be holding a meetup and showcase on **Saturday**, **May 14th** in Bridgeport at the Brewport Brewing Company (225 South Frontage Road). There should be a half dozen or so Rivian vehicles. The meeting time is **11 AM - 1 PM**.

While Rivian has had its challenges with its production startup, it has been delivering vehicles. Some of the early reservation holders have been waiting for 3 years. Now they have them, and early reports are that they are thrilled with them.

Here is a chance to take a look and ask questions. At least one of them will have his camping tent set up.

Free registration required.

https://www.eventbrite.com/e/north-east-rivian-club-may-2022-m
eetup-tickets-335374683707