

Test Drives of Tesla Cybertruck

Above photo is a wrapped Cybertruck which ships with the stainless steel body panels. We have seen lots of folks having fun with wrapping it.

First Public Test Drives of a Cybertruck to Be Offered at NorthEast Electric Vehicle Symposium

Tesla has confirmed that they will offer supervised Cybertruck test drives. This will be the first public test drive of the Cybertruck offered in the state. We hope you can join us!

Steer By Wire, High Voltage Architecture

While there are many strong opinions about this polarizing vehicle, Tesla has introduced features that have not yet been rolled out to other models. The vehicle is reportedly extremely nimble due to 4-wheel steering and steer-by-wire. A little bit of pressure on the steering wheel sends a signal down the wire to the motors, making for extremely responsive handling. This ~6500 pound vehicle will handle like a compact car.

The truck has an 800-volt architecture which, for high-power EVSE, will make for blazingly fast charging speeds. The other thing 800 volt architecture does is reduce the amount of wiring needed.

The not so low-voltage battery is a 48 volt lithium ion battery. We have been living with 12-volt since the mid-fifties (before then, the standard was 6-volt). Over the past 70 years, way more electronics have been introduced into vehicles. It is only a matter of time until higher power levels become the norm.

Here's Where to Go Cybertruckin

NorthEast Electric Vehicle Symposium

Date/Time: Sunday, September 15th, 12-4

Location: Hotel Marcel, 500 Sargent Drive, New Haven, CT

Policy symposium on Monday, September 16th

The event page is [here](#).

Free registration is required. We do have a capacity limitation. Please register [here](#).

Other available test drive vehicles include the BMW i4, i5, and iX, the Rivian R1T and R1S, and the Alfa Romeo Tonale. It is permitted to test drive multiple vehicles. That will be arranged separately.

Attendees can register for either or both days.

For any questions, please contact us at info@evclubct.com

NEEVS

NORTHEAST ELECTRIC VEHICLE SYMPOSIUM



WHEN
Sep. 15-16, 2024

WHERE
Hotel Marcel
New Haven, CT

Learn More
and Register
HERE!

NEEVS - the ultimate gathering for consumers new to EVs, EV enthusiasts, policy makers, and all who seek expert guidance on driving electric. Families welcome!

FREE ADMISSION!

GET BEHIND THE WHEEL!

- BMW i4
- BMW i5
- BMW iX
- Rivian R1T
- Rivian R1S
- AND MORE!

Be among the first to test drive the
Tesla CYBERTRUCK!!

EV Showcase - 25+ EVs on Display!

EDUCATION

SUNDAY
12PM - 4PM

EV showcase: meet and learn from owners

EV test drives to experience an EV

"Sage on the Stage" presentations every 15 minutes

POLICY

MONDAY
9AM - 3PM

Policy oriented presentations and roundtable discussions

Navigating charger/solar installation, incentives and utility programs

Catered lunch and networking

SPEAKERS

Marissa Gillett, Chairman of PURA

Claire Coleman, State Office of Consumer Counsel

Brandon Smith, EVNoire, on accessibility of charging in distressed communities

Matt Ferrell of YouTube channel Undecided

Thank You to Our Sponsors & Partners!



Rivian Deliveries Coming to CT

Shiny new R1T on a Rainy Day.

The photo above is of Analiese Mione, a member of the EV Club CT Leadership Team and one of the earliest Rivian R1T preorder holders. She was all smiles when taking delivery of her Adventure Package R1T. The pickup is in forest green with 21" tires to maximize range, an electric tonneau cover and heated and cooled vegan seats. The photo isn't helped by the gray, rainy day, but we sure were toasty in the truck.

There were only 7 Rivians registered in CT as of our most recent DMV update on July 1st, but deliveries are increasing. Indeed, the Rivian employee who delivered the R1T and delivered a fact and fun-filled onboarding experience, mentioned that not 5 miles away a Rivian R1S was being delivered to another customer. During the Rivian earnings call this week, the company reported a 67% increase in production from second to third quarter, and affirmed guidance of 25,000 of vehicles to be produced by the end of the year. They are currently producing all 3 announced models: the R1T pickup truck, R1S SUV, and the commercial delivery van that is being manufactured for Amazon.

This adventure vehicle sports a 135 kWh battery pack and an EPA-rated range of 314 miles. Assembly is done at the Rivian plant in Normal, Illinois, which means it qualifies for the \$7,500 federal tax credit for the remainder of 2022 under the recently passed IRA. For 2023 and beyond, we have to wait to find out if they comply with the new battery rules, and the price cap of \$80K for pickups and SUVs goes into effect. It comes with J1772 (level 2) and CCS (level 3) charging connectors, along with a portable charger that can plug in to

a 120 volt outlet or a 240 volt NEMA plug.

Behind the second row of seats is a gear tunnel that runs from one side of the truck to the other with doors on each end that fold down and double as seats or stepping stools for reaching above the truck. Analiese, a native plant specialist and private gardener in her retirement, plans to use it to conveniently stow her gardening tools for use at local private client homes.

Club president Barry Kresch joined Analiese for an inaugural test drive. Despite weighing a formidable 7,148 pounds, the vehicle rides on gossamer wings – smooth and silky, but responsive, quiet and very fast in all 5 driving modes. Analiese thinks she'll drive it in Conserve and All Purpose most of the time, but can switch to Sport mode with the tap of one finger should a Ferrari or Lamborghini pull up to her at a red light. □ To help spread the excitement about driving EVs and let others learn about this impressive feat of engineering, Analiese plans to participate in a number of upcoming EV showcase events.



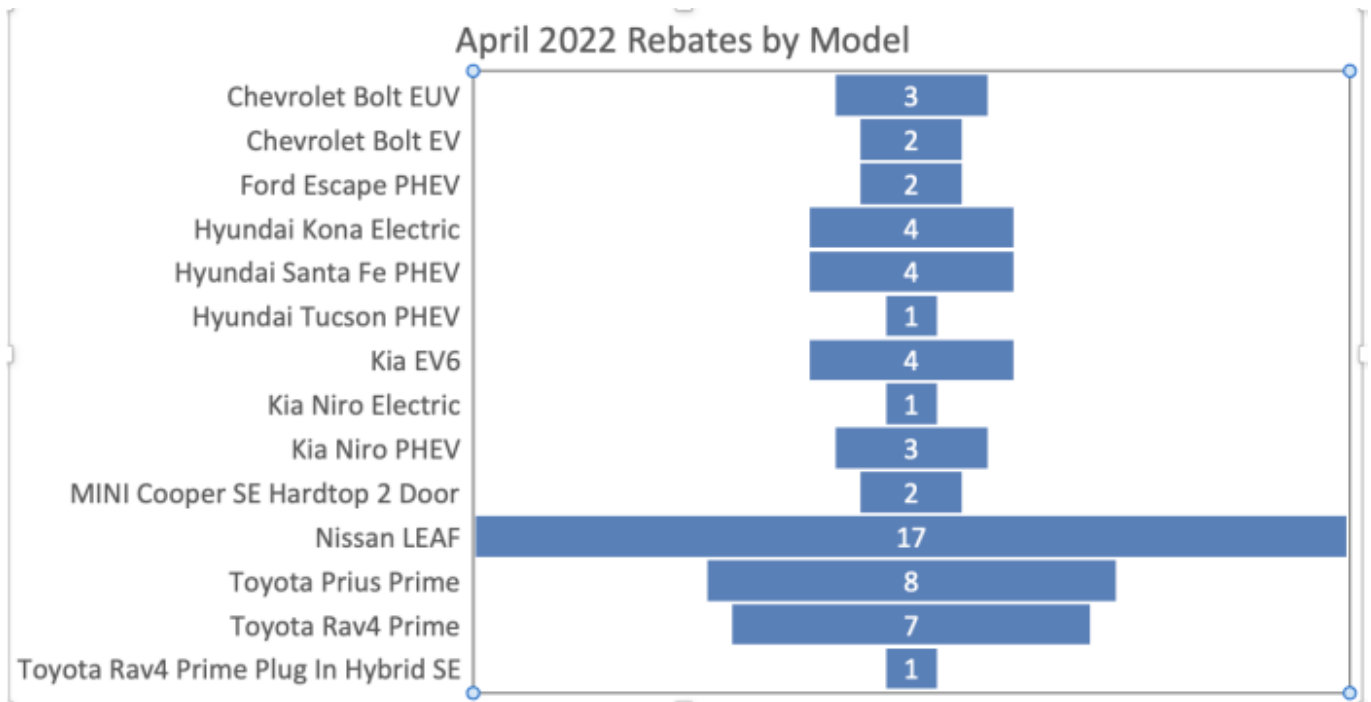
CHEAPR Update April 2022

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](#).



Direct Sales Bill Passes Out of Committee

SB-214 Passes with 21 Votes

SB-214 has passed the Transportation Committee by a vote of 21-14. To see how individual members voted, check out the tally on the [committee website](#).

Legislators are offered time to comment before the vote is taken and several took the opportunity.

Representative Devin Carney (R) (Ranking Member), who is a no vote, said that there is no longer a need because dealerships are now selling EVs, a change from several years ago. He opined that Tesla is a legitimate company, but that other, newer entrants like Rivian and Lucid, with their difficulties

in ramping production, are not, and thus do not deserve this “carve-out.” He also objected to characterizations made of the legacy companies that they don’t care about the environment, and cited some of the challenges of sourcing the materials necessary for battery manufacturing from places like the Democratic Republic of the Congo.

Representative Jonathan Steinberg (D), a longtime supporter of direct sales, said this year’s bill was an improvement over past bills. (The bill is restricted to battery electric vehicles and is no longer just a Tesla bill). Steinberg notes that the dealers say that direct sales will hurt their businesses but that the data from states where direct sales is legal just don’t support that conclusion. He thinks the entire auto purchasing relational experience will change, that it’s about competitiveness, and that this bill supports consumer choice. Interestingly, he said that he would support a bill that goes further than this one and do away with the franchise laws entirely.

Representative Stephen Meskers (D) said he was a yes because “at some level, the markets should decide.” His main concern was about whether this would extract profits from the state and vowed to engage with Tesla and the other companies to push them to maximize their investment in CT, including vocational-technical training.

Senator Henri Martin (R), voting no, complained that he doesn’t understand why this bill keeps coming back year after year. He feels that this bill does not protect consumers, questions whether there will be adequate servicing facilities, and that it comes down to having two sets of laws.

The actual committee vote was more bipartisan than the above comments might indicate. However, as best we know, last year there were no Republican votes in the Senate for this bill (since the bill didn’t get called, there was no recorded vote). That is something we hope to see change.

Bills similar to SB-214 have made it out of committee in the past but haven't made it across the finish line. The Senate is the next stop for SB-214.

We think that Representative Steinberg is spot on. This industry is changing but it needs to change faster. Consumers overwhelmingly [support](#) this legislation. Now is the time to tell your legislators that you support the free-market and consumer choice, and that the current, antiquated laws are holding back EV adoption.

You can use [this page](#) to find your state senator and representative.

Westport Directive To Purchase EVs

A Directive to Consider Vehicle Emissions Prior to Acquiring a Vehicle

Westport has been a leader in electric vehicle acquisition, both in terms of its residents making it the number one Connecticut city in EVs on a per capita basis and the municipality acquiring electric vehicles for official use. As of this writing, the Westport Police Department has 6 plug-in vehicles and the Town has 2. (Subsequent to the directive being issued, the WPD acquired a second Tesla, a Model Y, for use as a patrol car.)

Sustainable Certification

Connecticut

The impetus for this directive was the work being done that ultimately enabled Westport to be one of 12 cities earning a Silver Certification (highest level awarded) from [Sustainable Connecticut](#). While this directive may not have the force of an ordinance, it was done expeditiously, and from what we know is being taken seriously.

Text of Directive

“The Town of Westport, with the Police Department at the lead, has changed its policy on acquiring vehicles. Prior to 2019 the Town rarely took into account vehicle emissions or efficiency (Miles Per Gallon, etc) prior to acquiring a vehicle. The upfront cost of the vehicle was priority, and total cost of ownership/use was not considered.

At this time the municipality requires all departments to follow the Municipal Fleet Improvement Strategy prior to choosing a vehicle. The Town owns or leases, in addition to the Tesla 3, two plug-in hybrid Toyota Priuses, two all-electric Chevrolet Bolts, one electric BMW I-3.

The Town of Westport and its departments recognize that Internal Combustion Engine (ICE) vehicles negatively influence air quality and emit particulate matter (PM), nitrogen oxides (NOx), and volatile organic compounds (VOCs). The American Lung Association states:

- *Fairfield County remains the most polluted County in the New York-Newark metro area, 21 days of unhealthful levels of ozone. It also has the highest ozone readings in the eastern US. <https://www.lung.org/media/press-releases/connecticut-sota-2021>*

The Town and its departments, in an effort to decrease its contribution to such pollutants and to work toward the Town goal of Net Zero by 2050, follows this Municipal Vehicle Strategy:

With the replacement of every vehicle, or the addition of a vehicle to the municipal fleet, consideration will be given to the viability of an electric vehicle or hybrid vehicle over an Internal Combustion Engine vehicle.

The following will be considered when addressing viability:

Vehicle features (size, capability, performance, safety), vehicle emissions, equipment specifications, mileage efficiency, economic viability/cost (both upfront cost and total cost of ownership including fueling, maintenance, etc.), ancillary equipment needs (e.g. ambulance equipment, EV charger).

If you have any further questions, please do not hesitate to contact the Finance Department.”

Registering for Utility Incentives Via Telematics – Latest Update

EV Club Follow Up with Eversource and UI

This post concerns vehicles with telematics. Telematics is where the utility is able to communicate directly with the

vehicle, as opposed to a smart charger, the latter being the basic design of the program. This information has been developing, and in some cases, changing. This is the latest. Here goes.

The basic design of the program is to provide subsidies of up to \$1000 for the purchase and installation of smart chargers. In return, the recipient is required to participate in the demand response programs where the utility can throttle the rate of charge during high demand periods. The utility pays then the customer \$200 annually for full participation in the demand response.

One thing that is different than what is in the video of our meeting is that all vehicles, including Tesla, are eligible for a smart charger subsidy. At this time, there are no approved Tesla chargers in the program. That could change if Tesla chooses to submit a charger for qualification (or possibly they have and it is in the approval process). Tesla owners can use an eligible J1772 smart charger and qualify for the hardware incentive. Of course, an adapter will be necessary.

For those people who already have chargers that are not qualified chargers because they are either dumb chargers or non-approved smart chargers, another way to participate in the program is via telematics, if you have an eligible vehicle. Tesla, Chevrolet, Ford and a few other makes have eligible vehicles. This is the [page](#) that lists eligible vehicles for each company. It is subject to change and is expected to change as this is still early days. There is a \$100 enrollment incentive for people participating via telematics.

Registering for Telematics

Registering for this telematics path is difficult and confusing at this point because Eversource and UI are still in the process of building out their websites and back-end

integration. The back-end part of it is further complicated because there are two external vendors involved. One vendor is managing the rebates. The other is managing the telematics. Both utilities are using the same vendor for the rebates, but they are using different vendors for telematics. Consequently, there will be different vehicles that are telematics-eligible for each utility. While it is possible to stumble your way through the process, it is better to wait for the time being. As long as the program registration is done before June, no incentive amount will be lost.

We have provided detailed feedback to the utilities about the pain points in the registration funnels as they exist now.

In the case of Eversource, there is yet another layer because it is retaining its Connected Solutions branding and transitioning it to the new program. This process is not complete and there is old content still on the website. It is possible to link to that old content from the homepage and you may find yourself answering questions that are non-sequiturs. Some members have reported landing on a Massachusetts page. This is all part of the same problem, and the advice is the same – wait.

When we booked the virtual club meeting about this program for early in the year, we did not realize that there was still be a lot of developmental work to be done by the utilities to get to full implementation. Eversource and UI have advised us that in about a month, they will be able to give us more definitive information regarding the specifics of a more consumer-friendly telematics registration funnel and we will communicate that out when we have them.

Rapid Acceleration of EV Adoption Needed to Meet State's Goal

Time to Get Moving

There have been any number of data-focused posts on this blog tracking the details of EV adoption in our state, not to mention references to the goals the state has set for itself via the MultiState ZEV Action Program Memorandum of Understanding. If the goal of a half-million registered EVs by 2030 were to be realized, it would represent roughly 20%, perhaps a bit less, of the entire statewide light-duty fleet. As each year goes by, the trend line has not been rising fast enough. The simple image above shows the historical trend beginning with our first data dump from the DMV in 2017 (blue), to the most current data point (orange), and then onto what the slope would need to be (magenta) for us to achieve the 150,000 interim goal by 2025, along the way to the final 500,000, calculated on a straight line basis. The chart goes to January 2031, which is the same as December 31, 2030. We need every day we can get.

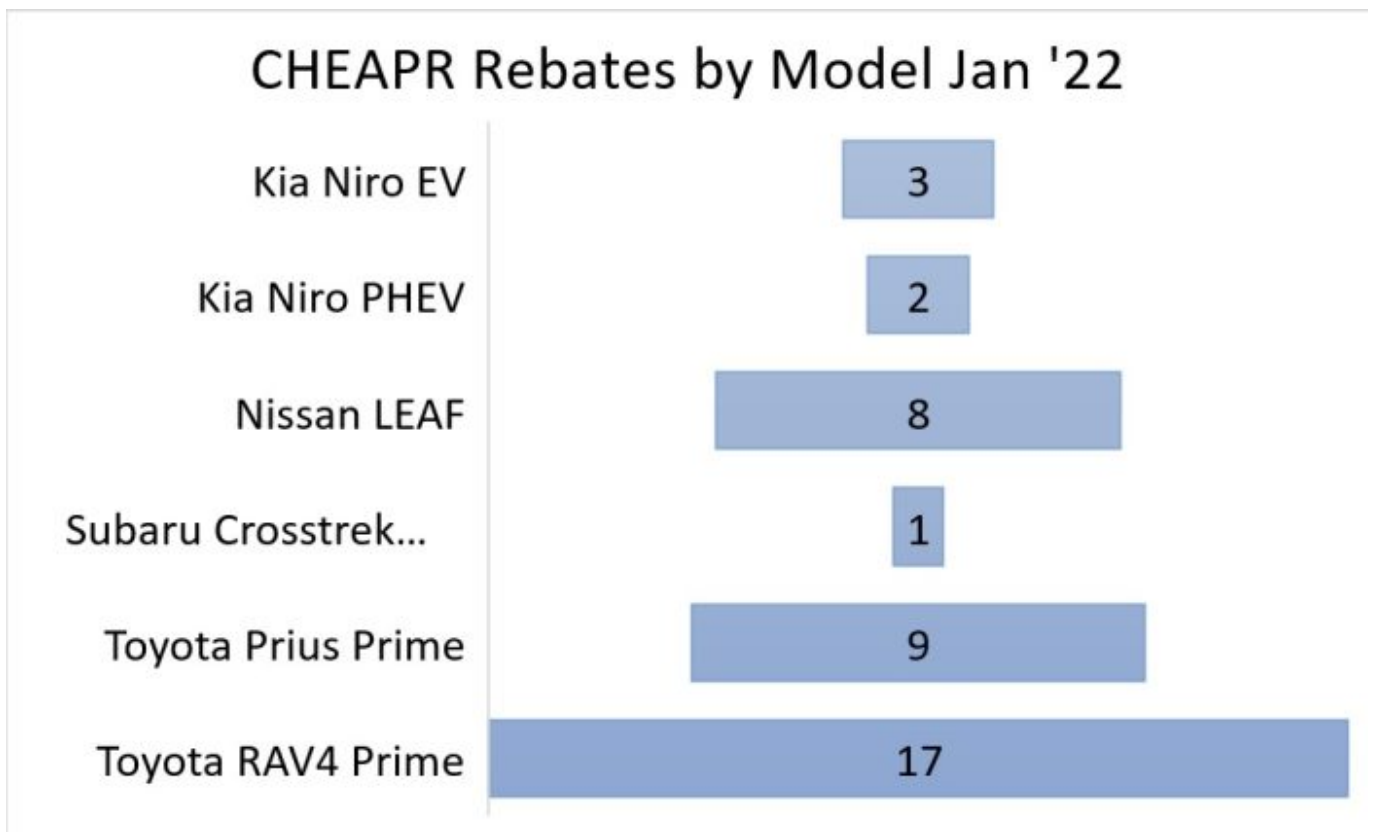
We also need the right policies, such as [direct sales](#) and a more aggressive [CHEAPR program](#). Direct sales has come before the legislature numerous times in the past without passing. If SB 214 has been brought up before the committee, it means it most likely has enough votes to pass out of committee. What happens next is harder to predict. We only know that if you don't try, it won't happen. We also know that there are more EV owners and advocates every year. The direct sales blog post has information about how you can help.

Changes Coming to CHEAPR?

Help Needed to Remedy Persistently Low Rebate Levels

As can be seen in the chart at the top, the rebate count for January was exceedingly low with only 40 rebates, just over half of the low number of 78 from January 2021.

Continuing recent trends, the Toyota RAV4 Prime plug-in hybrid dominated with 17 rebates, with PHEVs overall accounting for 28 of the 40 rebates.



Some changes could be afoot if SB-4, raised jointly by the Transportation and Environment Committees of the legislature, become law. There are several CHEAPR-related provisions

included in the draft text. This is the description to the best of our knowledge.

Environmental Justice Focus

There is a statement of purpose now that focuses on environmental justice communities and lower income individuals. It is phrased as, "The commissioner shall prioritize the granting of rebates to residents of environmental justice communities, residents having household incomes at or below three hundred per cent of the federal poverty level, and residents who participate in state and federal assistance programs, including, but not limited to, the state-administered federal Supplemental Nutrition Assistance Program, state-administered federal Low Income Home Energy Assistance Program, or a Head Start program established pursuant to section 10-16n. The program shall provide rebates of five thousand dollars to residents of environmental justice communities."

This represents a loosening of rules for income limited individuals, often referred to by the shorthand LMI. Currently, only participants in state and federal assistance plans are eligible for the Rebate+ incentives and very few have been used. There were zero in January. This expansion to 300% of the federal poverty level should expand the pool. The poverty level for a family of 4 is \$27,750. Aside from an overly limited applicant pool, the rebate+ incentives arguably suffer from being awarded after the fact. If that can be addressed, it would be up to DEEP and the board to determine the process.

The LMI incentive is increased to \$5000. Currently, a BEV carries a total incentive of \$4250. It is not clear if \$5,000 applies to everything.

Standard Rebate and Higher MSRP Cap

The standard rebate still exists and the rules are below.

MSRP cap increase to \$50,000. This is the level where it was before being lowered in 2019 to \$42,000, which began the chronic underspending and has more recently resulted in a program tilted heavily toward PHEVs. For example, over the past 4 months, BEVs accounted for 30% of CHEAPR rebates, but represent 59% of all registered EVs.

While the EV Club has pushed for a restoration of the \$50,000 level for the past couple of years, in the current inflationary environment, it arguably could be higher. The average transaction price of an EV, according to Kelly Blue Book, is \$56,437 (excluding Tesla). The marketplace has blown through the cap level.

Inclusion of Fleets

Expansion of program to include municipalities, businesses, organizations, and tribal entities. These organizations are entitled to up to 10 rebates per year up to a max total of 20. Organizations located in an environmental justice community can receive more at the discretion of the DEEP Commissioner. This could be a big help.

eBikes

eBikes are now included with a rebate of \$500 for a bike costing no more than \$2,000. In the Transport Hartford/Center for Latino Progress meetings, they have said that \$2,000 isn't enough for a quality bike. We support eBike rebates, along with their efforts to advocate for a higher price cap.

Higher Budget

The CHEAPR budget established in the 2019 legislation is \$3MM

per year, which has been underspent since the day it started. With the expansion of incentives described in this post, the spend level looks to be considerably higher. The proposed legislation authorizes the program to spend “a minimum of \$3MM per year.” This indicates that more funds are forthcoming, but it doesn’t specify a cap. CHEAPR funding comes from the clean air fees collected as part of auto registration. These fees bring in about \$8MM per year. \$3MM have been going to CHEAPR with the rest having gone to the general fund. The new legislation designates that 57.5% go to transportation funding, though it is possible that other programs could be included.

Board

There are proposed changes to the board, specifically the inclusion of a “representative of an association representing electric vehicle manufacturers,” and a “representative of an association representing electric vehicle consumers.” For the former, we don’t know if this is a way to draw in the new EV-exclusive manufacturers or if it can be filled by an organization such as the Automotive Alliance which represents legacy OEMs. The manufacturer representative is appointed by the Senate President Pro Tempore. The consumer organization representative is appointed by the House minority leader. These replace 2 current positions appointed by the same individuals. Those positions are currently filled and it is not known if those people will depart.

There are also a couple of unfilled board positions, appointed at large by DEEP, and designated for representatives of an industrial fleet or transportation company.

The board is characterized as operating in an advisory capacity so it is not completely clear how much power they have when it comes to setting policy.

Other Legislative Items

In this and other bills, there are other items of note.

- Right to charge legislation to make it easier for residents (owners and renters) to be able to install a charging station.
- Adoption of California medium and heavy duty vehicle emission standards, pending results of DEEP analysis. (Does anyone seriously doubt we desperately need this??) Update: DEEP released their expected endorsement of this measure on March 9th. (This is bill HB-5039.)
- Allowance for school to enter into 10-year contracts for EV school buses. Currently, only 5-year contracts are allowed. For EV buses, 10 years are needed to make the numbers work.
- Accelerated purchases of smart traffic signals (yes, this really does reduce emissions).
- EV charging stations that go beyond the federal Infrastructure bill and highway corridors to cover communities with lack of charging access.
- Active transportation – pedestrian and bike paths.
- Any project involving state funds must not add to carbon emissions. If it does, there needs to be offsets.

Advocacy:

We are supportive this bill. There are many good things in it. We would prefer an MSRP cap of \$55,000 for CHEAPR to reflect the realities of the electric car marketplace, as well as a higher cap on the cost of eBikes.

Go [here](#) to find your legislators and contact information.

The Transportation Committee and the Environment Committee will hold a joint public hearing on Friday, March 11, 2022 at 11:00 A.M. via Zoom. The public hearing can be viewed via YouTube Live. In addition, the public hearing may be recorded and broadcast live on CT-N.com. Individuals who wish to

testify via Zoom must register using the On-line Testimony Registration Form. Registration will close on Thursday, March 10, 2022 at 3:00 P.M. Speaker order of approved registrants will be posted on the Transportation Committee website on Thursday, March 10, 2022 at 6:00 P.M. under Public Hearing Testimony. If you do not have internet access, you may provide testimony via telephone. To register to testify by phone, call the Phone Registrant Line at (860) 240-0590 to leave your contact information. Please email written testimony in PDF format to TRAtestimony@cga.ct.gov. Testimony should clearly state testifier name and related Bills. The Committee requests that testimony be limited to matters related to the items on the Agenda. The first hour of the hearing is reserved for Legislators, Constitutional Officers, State Agency Heads and Chief Elected Municipal Officials. Speakers will be limited to three minutes of testimony. The Committee encourages witnesses to submit a written statement and to condense oral testimony to a summary of that statement. All public hearing testimony, written and spoken, is public information. As such, it will be made available on the CGA website and indexed by internet search engines.

2021 CHEAPR Wrap

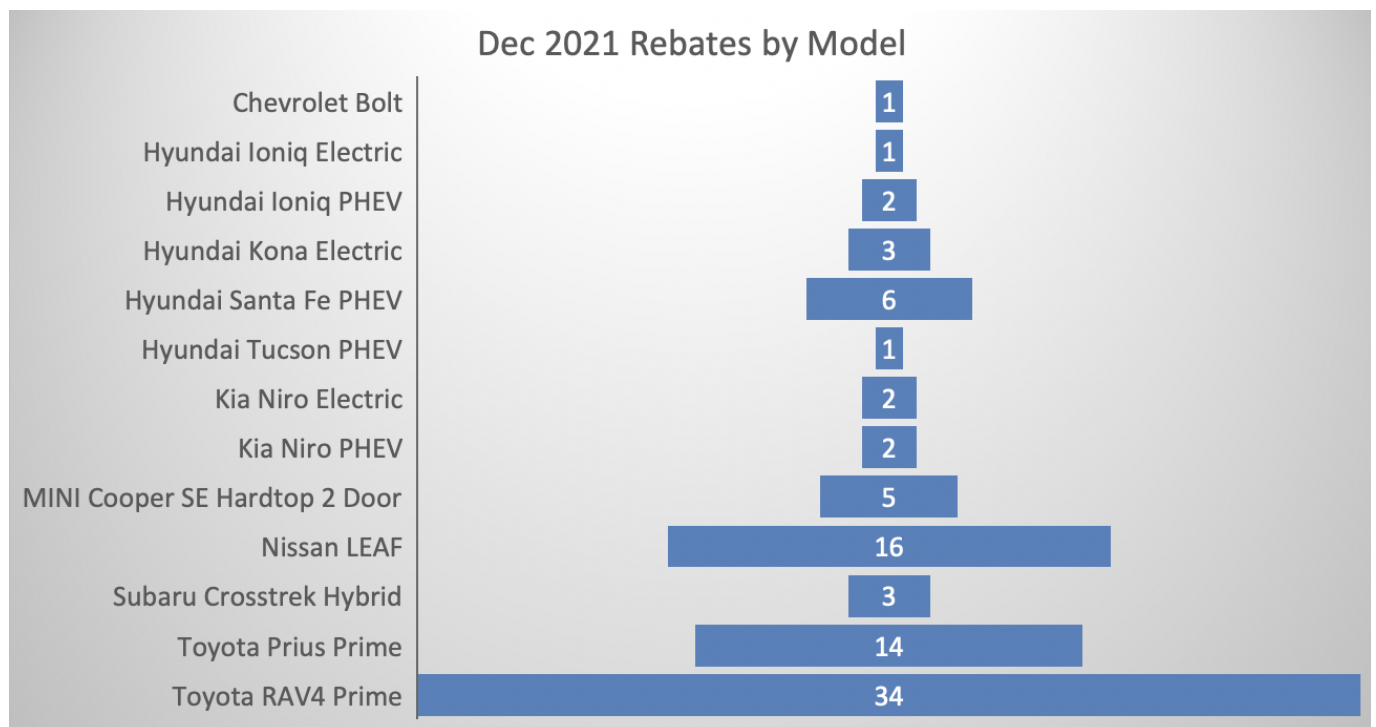
CHEAPR Quietly Finishes a Quiet

Year

We can begin with the good news: 2021 was an improvement over 2020, though that is a low bar. Otherwise, meh.

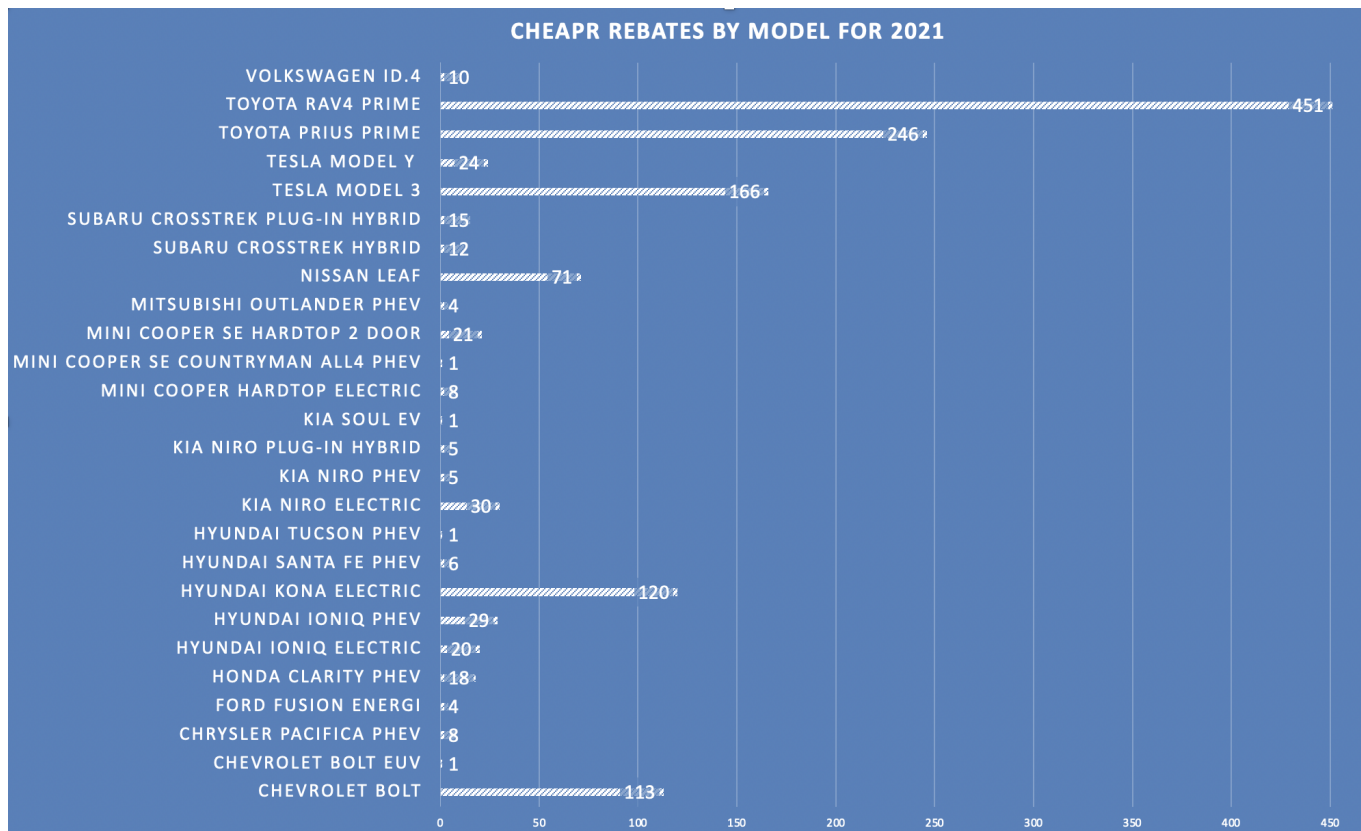
There were 90 rebates awarded and \$110,250 expended in December. The annual totals are 1390 rebates and \$1,588,000, so another year in which the program did not spend its budget. With funds rolling over, that should mean a war chest of over \$6 million for 2022. (The comparable annual totals for 2020 are 675 rebates and \$723,500.)

The program also continues its recent trend of being dominated by PHEVs with the Toyota RAV4 Prime leading the way. 62 of 90 rebates in December were PHEV.



This is the distribution of models for the full year. The Model 3 Standard Range Plus was eligible before the price increase and the Model Y Standard Range was eligible briefly before Tesla halted production. As the year progressed, deliveries of the RAV4 Prime ramped and it correlated with a

decline in Prius Prime deliveries. The RAV4 is likely to be a bigger part of 2022.



There appears to have been one Rebate+ incentive given in December.

This program has been in a trough for quite some time, and as we've written before, the next chance to approve changes will be at the March board meeting on March 16th, 3:00 – 5:00 PM. Unfortunately, their format is for public comments to occur at the end of the meeting. So they are essentially noted for the record and not used as input, something else that needs to be reconsidered.

EV Registrations up 55% in 2021

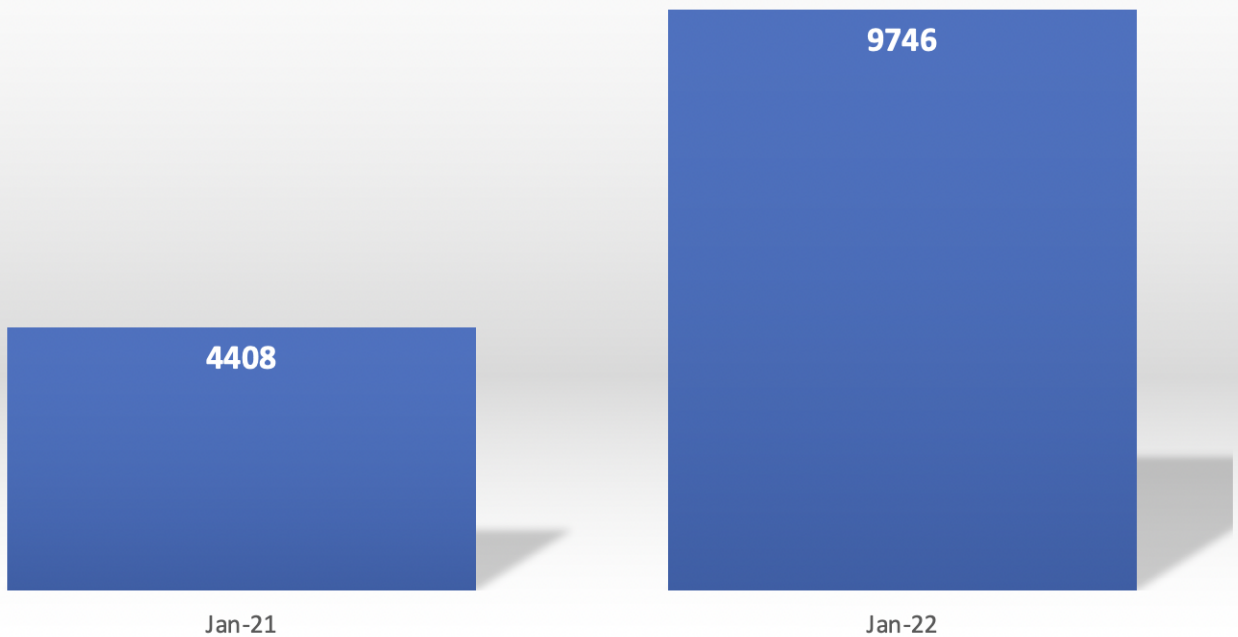
Recovery Induced Rebound in EV Sales

After a truly dismal, pandemic-influenced 2020, where EV registrations increased by an anemic 18.2%, there has been a rebound in 2021 to an increase of 54.9%. CT now has 21,382 EVs, up from 13,800 one year ago. Of course, the pandemic is still with us, but the brief, severe recession is over. Demand has been sharply stronger. If anything, the current numbers are supply constrained.

Newly Registered Vehicles

Keep in mind these are net registration numbers and that there is always turnover in the fleet. If we look at the number of new EVs registered in 2021 vs 2020, the trend is steeper with a 121% increase.

Newly Registered Vehicles in by Year



There was an administrative extension of registrations in 2020 that may have caused the Jan '21 number to be somewhat overstated.

This increased rate of growth is good news, but on a more cautionary note, it puts the state at only 4.3% of the way toward its 2030 goal of 500,000 registered EVs.

The underlying detail of these numbers, which allows us to chart fuel type, make, model, city, etc. is not yet available. We expect it within the next couple of weeks. Nationally, the big sellers have been the Tesla Model Y and 3, Mustang Mach-E, VW ID.4, and Toyota RAV4 Prime. There were several important introductions that happened too late in the year to have much of an impact, such as the Hyundai Ioniq 5, Mercedes-Benz EQS, GMC Hummer, and Rivian R1T and R1S. Of course, GM suffered a serious blow with its large recall and manufacturing interruption of its Bolt and Bolt EUV. The Honda Clarity PHEV ceased to be produced in 2021, though there is reportedly some dealer stock around.