

CHEAPR Changes in Context of Registration and Sales Data – It's Still Bad

Changes to CHEAPR Cause Rebates to Plummet and Bring Down Overall Results for CT

In addition to the rebate data, we now have data for EV sales nationally and EV registrations in CT for the full year 2019 to provide greater context to what appears to be some seriously misguided decision-making going on in CHEAPR-land.

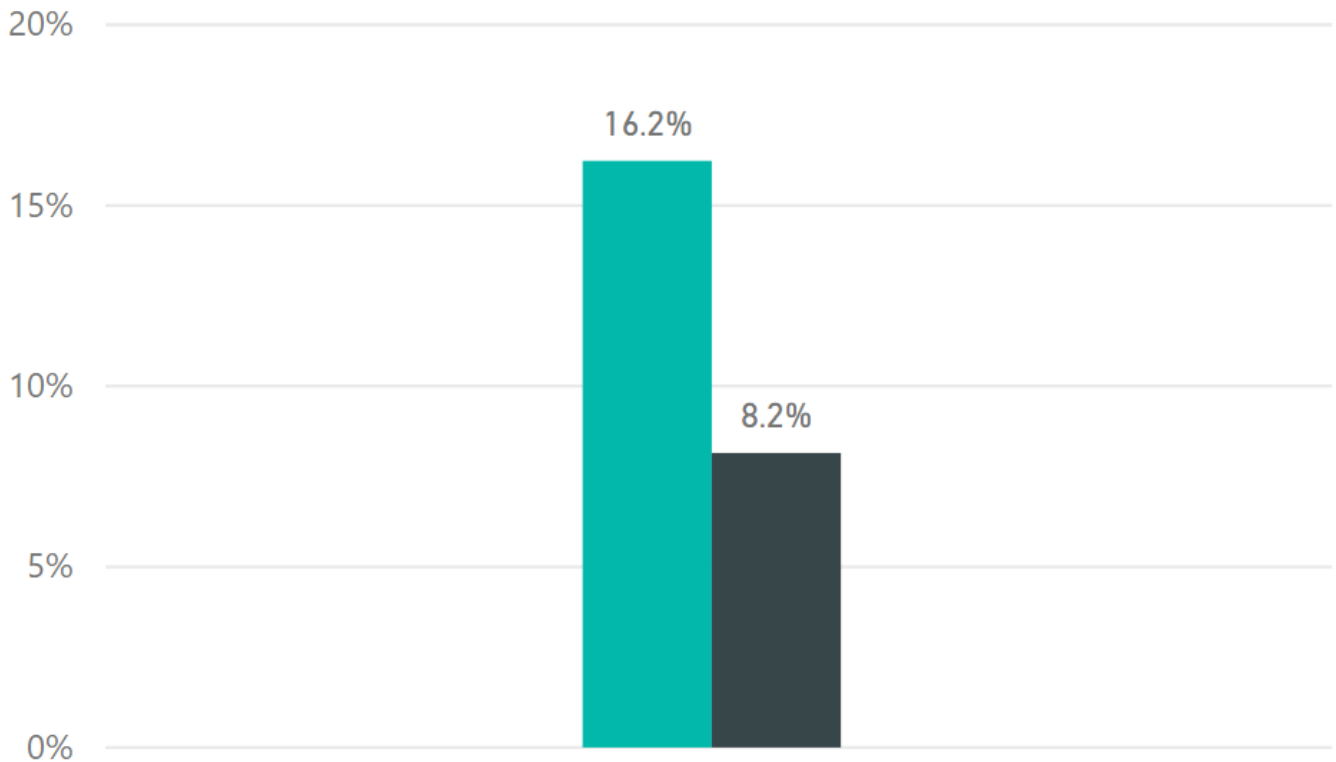
As noted in earlier posts, the changes made to reduce the size of the rebates, and arguably, more importantly, lower the price cap for eligibility, have caused rebates to plummet 71% in units and 87% in dollar volume. At the current run-rate, the program will only expend about \$520,000 of its \$3-million allotment.

Tesla Model 3 rebates fell 92% and accounted for 70% of the overall decline. Chevy Bolt rebates fell 85% and Nissan Leaf rebates dropped 75%. Both the Bolt and Leaf declines came from much lower starting points than the Model 3.

We now have CT EV registration data for 2019, and we have two points in time, July 1, 2019, and Jan 1, 2020, enabling the separate evaluation of the first vs second half of the year. As seen in the chart below, from Jan 1, 2019, to July 1, 2019, EV registrations rose 16.2%. From July 1, 2019, to Jan 1, 2020, they rose 8.2%. The changes to CHEAPR took effect on October 15 and correlate with the declining rate of increase.

% Change 1st Half vs. 2nd Half 2019

● % Chg Jul 2019/Jan 2019 ● % Chg Jan 2020/Jul 2019



This is counterpointed by the fact that nationally, sales of EVs were 22% higher in the second half of the year.

CT and the rest of the country are headed in different directions.

CHEAPR Changes a Bad Idea – Op-Ed in Hartford Business Journal

Changes to CHEAPR = large decline in rebates

Club-member, Barry Kresch, penned an [Op-Ed](#) that was published in the Hartford Business Journal that discusses the early data regarding the impact of the way DEEP changed the parameters of the CT CHEAPR EV incentive program, and why rebates declined 71%. (This blog has also posted a couple of earlier entries about it [here](#) and [here](#).) The incentive was lowered to a maximum of \$1500 for a BEV and \$500 for a PHEV, and eligibility restricted only to vehicles with an MSRP of no more than \$42,000. The lower MSRP cap caused rebates for the Tesla Model 3 to practically disappear, but the effect goes deeper (pun intended).

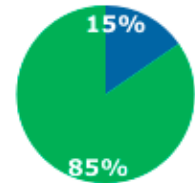
The word count is constrained for these Op-Eds and the format does not permit graphical exhibits, so this post will be used to expand on a few points. First, these are the graphics from the CHEAPR stats page reflecting the pre and post periods relative to the date of the incentive changes (the incentive change was 10/15). The date range appears in the upper right portion of the image.

Data last updated: December 30, 2019 (most recent months partial)

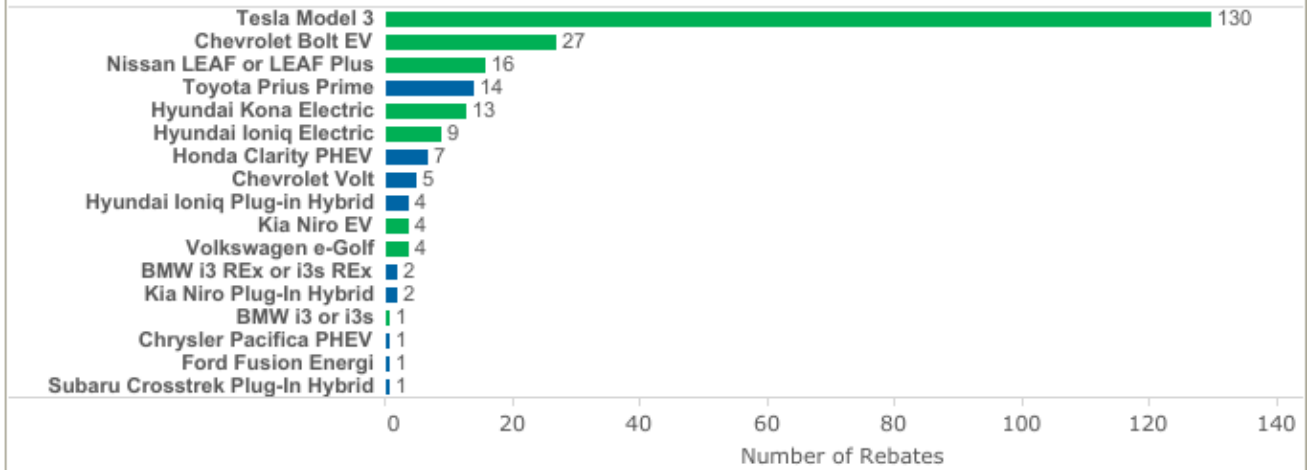
Filter By: Home Zip Code: Application Date: 9/3/2019 10/10/2019

Program Summary (select to filter)

		Rebate Dollars	Rebates
PHEV	Plug-in hybrid electric vehicle (electricity and gasoline)	\$26,500	37
BEV	Highway capable, four-wheeled, all-electric vehicle	\$396,000	204
Total		\$422,500	241



Rebates by Make and Model (select to filter)



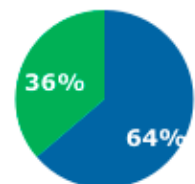
“Pre” period, Sept 3 through Oct. 10

Data last updated: December 30, 2019 (most recent months partial)

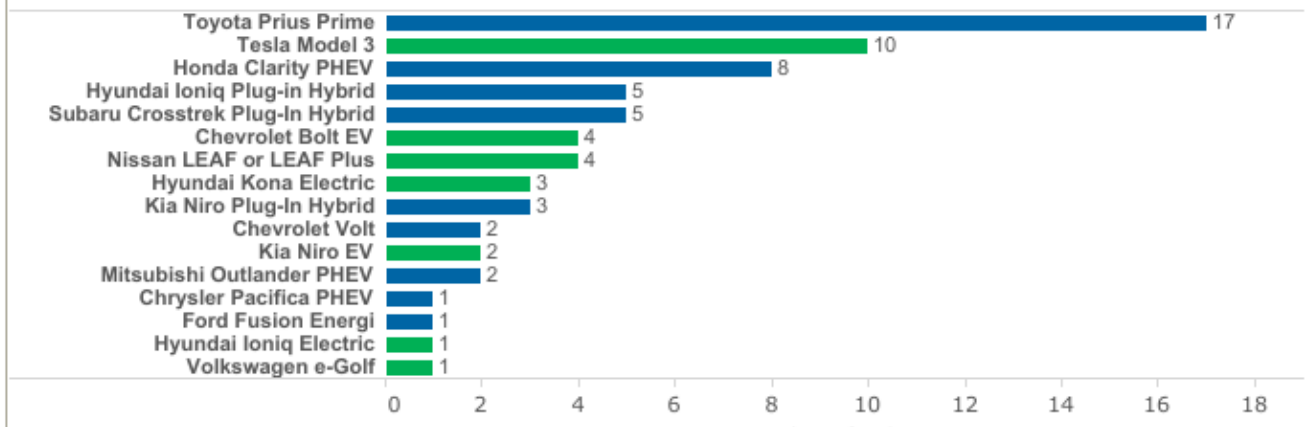
Filter By: Home Zip Code: Application Date: 10/23/2019 11/30/2019

Program Summary (select to filter)

		Rebate Dollars	Rebates
PHEV	Plug-in hybrid electric vehicle (electricity and gasoline)	\$22,000	44
BEV	Highway capable, four-wheeled, all-electric vehicle	\$33,500	25
Total		\$55,500	69



Rebates by Make and Model (select to filter)



“Post” period of Oct. 23 through Nov. 30

While most of the decline was Model 3 related, other vehicles were also affected. We note the steep falloff in the Chevy Bolt. The premium version of the 2020 Bolt begins at \$41,985. Bolt rebates declined from 27 to 4. The BMW i3 no longer appears, and it had 2 rebates in the “pre” period. The Nissan Leaf declined from 16 to 4, and it is possible to exceed \$42,000 with a Leaf Plus.

If the lowering of the price cap was intended to avoid subsidizing more affluent buyers, this is belied by the fact that the cap on fuel cell vehicles was raised to \$60,000.

Massachusetts Incentive Program

As a point of comparison, the Massachusetts incentive program (back online after a brief hiatus) has incentives that are more generous than CHEAPR before the changes. The max incentive for a BEV is 67% higher at \$2500. The PHEV rebate is triple CT at \$1500 but the vehicle must have an electric range minimum of 25 miles to be eligible, which we think is a sensible requirement. Importantly, there is a price cap and it is \$50,000, the same as CT before October 15th.

Current Incentive Structure Penalizes BEVs

We would like to underscore an important point. Batteries are the most expensive part of an EV and the lowering of the price cap, based on the above data, clearly tilts the incentives toward PHEVs, which have increased from 15% to 64% of the rebates. This works against maximizing the reduction of greenhouse gas emissions.

Do Incentives Work?

We have been asked this question. Perhaps what is still the best (and most extreme) example occurred in Georgia. At one time, GA had the fourth-highest number of EVs on the road of any state in the country, circa 2015. And it was due to one of the most generous incentives of any state: a \$5000 state tax credit for the purchase or lease of a new EV. Not only was the incentive repealed in its entirety, but a \$200 road-use tax was imposed on EVs. The result? Between June and August of 2015, EV sales plunged 89%. The road-use tax exceeds the amount of money paid in gas taxes by a typical ICE driver. And, of course, there are too few EV drivers to compensate for the decreasing ability of gas taxes to fund needed road improvements. It was clearly punitive toward EVs. It worked, but it also underscores the value of incentives. (Source: WSB-TV) The EV road use fee is reported to be the brainchild of the American Legislative Exchange Council (ALEC), the organization of conservative state legislators that writes draft legislation and often supports fossil-fuel interests. See this article in [Consumer Reports](#).

Budget

With respect to DEEP managing its budget, there is one new item on the horizon, namely an incentive for used EVs. This was authorized by the legislature in the same bill that provided the new funding stream for CHEAPR. There has been no announcement from DEEP regarding when this may be implemented, how much the incentives would be, or whether there is any means-testing involved. This could conceivably be what caused DEEP to be concerned about their budget. Given that they were on track to be within their allotment, we think a data-gathering phase before implementing changes would have made for better-informed decisions.

CHEAPR Falls Off a Cliff

Rebates Are Down 81% Based on Early Data

CHEAPR is the Connecticut EV purchase incentive program, administered by the Connecticut Department of Energy and Environmental Protection (DEEP). As of October 15, DEEP lowered the incentive levels for all battery electric vehicles, plug-in hybrid vehicles (but not fuel-cell vehicles), as well as lowered the price cap that determines vehicle eligibility. We described these changes in detail [here](#).

As reported in the YaleDailyNews.com, “DEEP representatives told the News that the incentive decreases were necessary to keep the program running.” In other words, they are worried about running out of funds. In legislation passed earlier this year, CHEAPR was funded to the level of \$3 million per year through 2025.

Our concern has been that the reductions are too large and that the lower price cap would exclude, in particular, the number one selling EV (by a mile), the Tesla Model 3. The early data seem to bear this out.

DEEP publishes data with a bit of a lag, and as of this writing on Dec. 8, there was a Dec. 2 update published with data through October 31. Also, there isn't individual day

granularity; there are certain interval boundaries that we have to work with. Finally, we don't know if purchases made before the change, but where the vehicles were delivered afterward, are grandfathered in. All that said, the pattern that emerges is so clear it is like a punch in the nose.

We were able to isolate two 13-day periods, just before and just after the change, something of a "light switch" test. These periods are 9/24 – 10/6 and 10/19 – 10/31.

The number of vehicles for which rebates were issued declined by 81% (from 119 to 23). The dollar amount of the rebates is down 90%. The number of Model 3 rebates declined from 58 to 5. If a straight-line run rate is calculated from the post-change 13-day period, the program would disburse slightly over \$600,000, well below the \$3 million allotted cap.

Interestingly, if we look at the past 12 months of disbursements before the change (as close as we can get, 10/11/18 to 10/6/19), the amount disbursed was \$2,867,500. Are they solving a problem that doesn't exist?

It is possible that their internal projections that led to the reductions are based on sales forecasts that aren't supported by current trends. In the legislation that authorized the funding, there is a provision to establish rebates for used vehicles, which has not been done to date. From our perspective, this is the tail wagging the dog. Let's make the program work. If it runs over budget, we would rather deal with a problem of success. If these changes hold, it will have undermined the intent of the legislation passed in the spring.

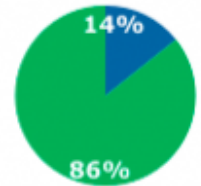
The data from DEEP

Dates are noted in the upper right corner.

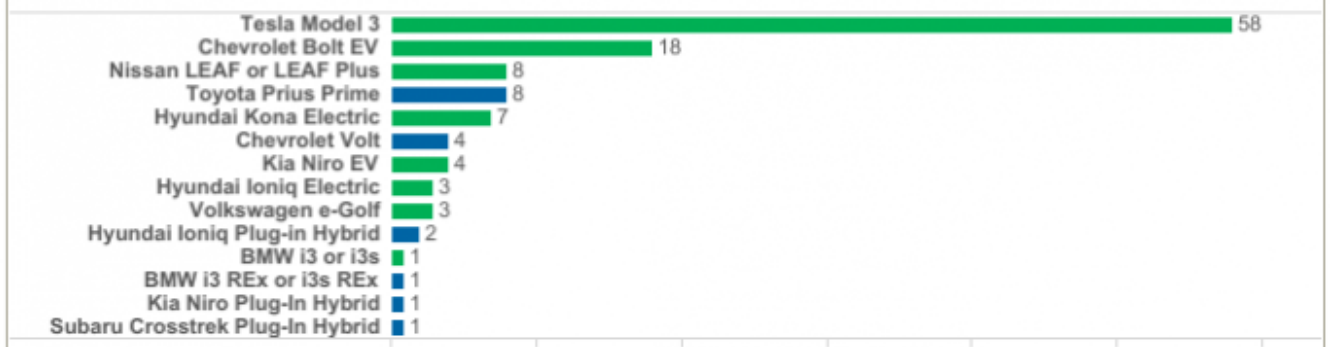
Filter By: Home Zip Code: Application Date: 9/24/2019 10/6/2019 (T)

Program Summary (select to filter)

		Rebate Dollars	Rebates
PHEV	Plug-in hybrid electric vehicle (electricity and gasoline)	\$11,500	17
BEV	Highway capable, four-wheeled, all-electric vehicle	\$197,500	102
Total		\$209,000	119



Rebates by Make and Model (select to filter)

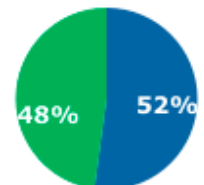


Data last updated: December 02, 2019 (most recent months partial)

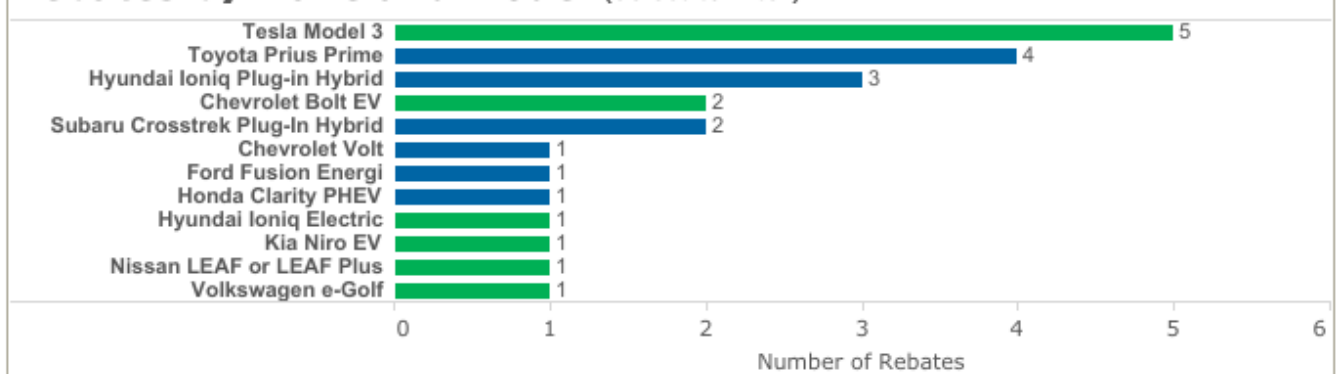
Filter By: Home Zip Code: Application Date: 10/19/2019 10/31/2019 (T)

Program Summary (select to filter)

		Rebate Dollars	Rebates
PHEV	Plug-in hybrid electric vehicle (electricity and gasoline)	\$6,000	12
BEV	Highway capable, four-wheeled, all-electric vehicle	\$15,500	11
Total		\$21,500	23



Rebates by Make and Model (select to filter)



We expect to publish a subsequent update as more data become available.

CHEAPR Changes Likely to Impact the Tesla Model 3

The Potential Impact of the Lower CHEAPR Price Cap

Looking at the implication of the changes made to the CHEAPR rebate criteria on October 15, the lower price cap seems directly targeted at excluding the Model 3. The state (and everyone concerned about emissions) seeks to accelerate EV sales, and the Model 3 has higher sales volume than all of the other EV models combined (including BEV and PHEV), according to sales data published by Inside EVs. (Other vehicles will be affected by this, mainly from BMW and Volvo, but there were few rebates for these vehicles.)

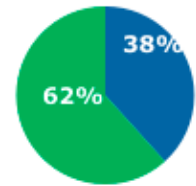
The lower trim levels of the Model 3 have been within the previous \$50,000 price cap. While it is possible to buy a Model 3 for under \$42,000, you are pretty much limited to the base standard range and rear-wheel drive with no options.

Since Tesla began ramping production in the latter part of 2018, the Model 3 accounts for 46% of rebates as reported on the CHEAPR stats page.

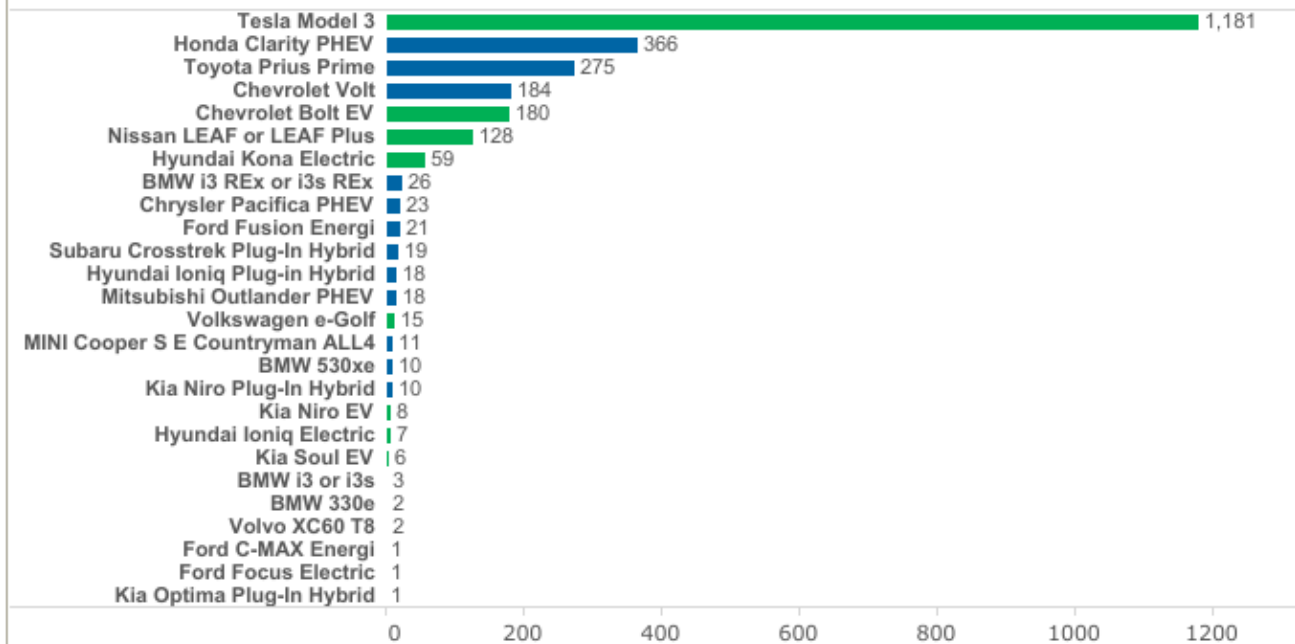
Filter By: Home Zip Code: Application Date: 5/31/2018 9/30/2019

Program Summary (select to filter)

		Rebate Dollars	Rebates
PHEV	Plug-in hybrid electric vehicle (electricity and gasoline)	\$1,049,500	987
BEV	Highway capable, four-wheeled, all-electric vehicle	\$3,601,500	1,588
Total		\$4,651,000	2,575



Rebates by Make and Model (select to filter)



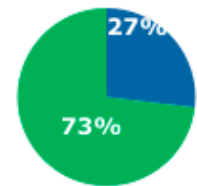
CHEAPR Rebates by Model, 5/31/18 – 9/30/19

If we restrict the range to only 2019 (almost – the range begins on 12/24/18), the numbers are more dramatic with the Model 3 accounting for 54% of rebates, six times the next highest-ranking model, the Toyota Prius Prime.

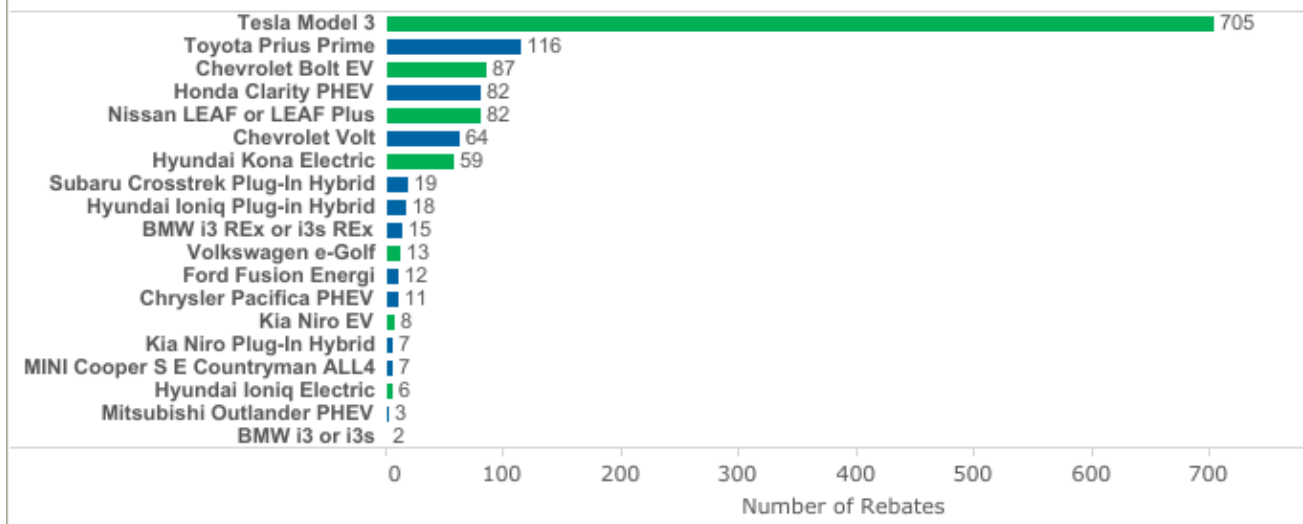
Filter By: Home Zip Code: Application Date: 12/24/2018 9/30/2019

Program Summary (select to filter)

		Rebate Dollars	Rebates
PHEV	Plug-in hybrid electric vehicle (electricity and gasoline)	\$263,500	354
BEV	Highway capable, four-wheeled, all-electric vehicle	\$1,885,000	962
Total		\$2,148,500	1,316



Rebates by Make and Model (select to filter)



CHEAPR rebates by model, 12/24/18 – 9/30/19

As can be seen from the filter settings on the above charts, CHEAPR stats are posted through 9/30 as of this writing. From what we have observed, the posting of the stats lags by 3-4 weeks. We don't know if there is any lead/lag in the implementation (i.e. orders placed before 10/15 with the vehicle delivered afterward). In approximately 8 weeks, depending on the timing of future data loads, we will examine what impact the changes have had, and, over time, we'll see if it slows overall EV adoption in CT.

A Cheaper CHEAPR

CHEAPR lowers incentives for BEVs and PHEVs, Changes MSRP Cap

After this blog put up a detailed [update on CHEAPR](#) 2 weeks ago, the date at which the replenishment of funds mandated by the legislature took effect, we have learned that incentive levels and criteria have changed as of today (Oct. 15).

The max MRSP has been lowered to \$42,000 from \$50,000 for PHEVs and BEVs. The max MSRP for FCEVs (fuel cell) has been raised to \$60,000. This resolves the conflict created by the earlier, poorly thought out, cap in that there are virtually no FCEVs available under \$50K.

Incentives for PHEVs are now \$500, no matter the electric range. Previously, PHEVs with 45+ miles of electric range were eligible for \$1000.

There are now 2 categories of BEV incentive, down from 3. These are 200+ miles and <200 miles. They are eligible for \$1500 and \$500, respectively. The old categories were 200+ (\$2000), 120 – 199 miles (\$1500), and <120 miles (\$500).

The incentive for FCEV remains at \$5000 irrespective of range (and the range across these vehicles varies quite a lot).

CHEAPR Replenishment

CHEAPR Update

Connecticut Hydrogen and Electric Automobile Purchase Rebate, in case you were wondering, is what the acronym stands for. CHEAPR has been with us for a while now. It was passed in 2015 and has handed out 5267 rebates (through August 31), totaling over \$10 million for the purchase of fuel-efficient EVs. (There were 10,797 EVs registered in the state as of July 1, so it sure seems like it has been a factor.)

If you go on the program's website today (Oct. 1), it indicates that there is only \$60,958 in remaining funds. But HB 7205, passed in the 2019 legislative session, authorizes a replenishment due to take effect today, which will hopefully be reflected soon, and which funds the program through 2025.

Keep in mind, CHEAPR is a rebate. It is not a tax-credit like the Federal incentive, and there are no manufacturer sales caps. The rebate is more consumer-friendly in our view.

Current Incentive Levels

CHEAPR standards have changed over time. The basic idea of the rebate size being driven by zero-emissions range is still present, but as cars have changed, so have the criteria. This is the current incentive breakdown:

Incentive Amount	EPA Rated Electric Range
\$5,000	Any fuel cell electric vehicle
\$2,000	BEV: 200 Miles or Greater
\$1,500	BEV: 120-199 Miles
\$1,000	PHEV: 45 Miles or Greater
\$500	BEV: Less 120 Miles PHEV: Less than 45 Miles

As the chart indicates, incentives are available for plug-in hybrid vehicles (PHEV), battery electric vehicles (BEV), and fuel-cell electric vehicles (FCEV). The implication is that FCEVs have much greater range than a BEV. That isn't entirely the case. A Tesla Model 3 has up to a 310-mile range, Chevy Bolt gets 238 miles, Hyundai Kona is rated at 258. There are two FCEVs currently registered in the state. Both are Toyota Mirais, rated 312 miles. The other two FCEVs that we are aware of are the Hyundai Tucson (265 miles), and the FCEV version of the Honda Clarity (366 miles). There were no rebates given for either of the FCEVs. (It is also hard to find one within the price cap.) We're not entirely sure about the consistency here, but range is the stated principle.

The amount of incentive given for a lease may not be as straightforward as it gets folded into the mathematics of the lease payment calculation by the dealer. As the saying goes, your mileage may vary.

Many CT dealers are interconnected with the DMV/CHEAPR and will handle the paperwork. They often just take the incentive off the price of the vehicle they deliver. It saves the work of filing for the rebate, but we recommend carefully reviewing the invoice with the dealer in order to accurately set expectations regarding the price.

Price Cap

There are other requirements associated with CHEAPR. Eligible vehicles must have an MSRP below \$50,000. (Originally, the cap was set at \$60,000.) This makes ineligible a number of expensive EV entrants such as the Tesla Models S and X, Jaguar i-Pace, Audi e-Tron, and others. The Tesla Model 3 is eligible for the lower trim levels. It is possible to get the long-range (310-mile) Model 3 for under \$50,000. We expect there to be trim levels of the forthcoming Model Y that will also be eligible, based upon what we see on the Tesla website. With respect to the FCEVs, the Honda Clarity base trim price is \$59,365, Toyota Mirai is \$59,430, Hyundai Tucson – \$50,875 (FCEV base prices are from Car and Driver). Based on these MSRPs, it would appear they would all be too expensive to qualify, but they are listed as eligible on the CHEAPR website. We are only aware of the availability of these vehicles via lease. If you're going that route, it seems prudent to verify the eligibility before concluding the transaction.

Once Only

Unlike the Federal tax credit, which is associated with each vehicle, the CHEAPR rebate is tied to the person receiving it. This rebate can be claimed *one time only*. It can be used for multiple vehicles if different (licensed) members of the household are the registrant. Pro-tip: Don't co-sign for a vehicle because you will both get dinged for the use of the rebate.

Where Can You Buy It

In order to be eligible, it is required that the vehicle be purchased from a dealer doing business in CT. (The dealer gets a little taste, too.) If you buy that Chevy Bolt from a dealer

out of state and transfer the registration, you will not get the rebate. The exception to this is Tesla, which does not have dealers, and which has been barred by CT law from opening stores in the state. But the Model 3 trim levels that are below the price cap are eligible and Tesla will work with you on the admin.

New vs Used

This incentive applies to the purchase or lease of a new vehicle only. There is language in HB 7205 (line 142) authorizing DEEP to set income and incentive thresholds for purchases of used vehicles. We contacted DEEP for clarification and were advised that the rules as stated on their website are what govern eligibility, and these rules state, specifically, new vehicles only.

This is the link to the [CHEAPR website](#). It lists all of the eligible vehicles as well as the rules and program stats.

CT is CHEAPR

CHEAPR

States have been going their own way, whatever the direction of what may be happening Federally. Connecticut has been a consistent supporter of EV adoption and reduced emissions on a number of fronts. And with good reason, as the Department of Energy and Environmental Protection (DEEP) estimates that the transportation sector accounts for about 40% of emissions statewide.

CHEAPR, which stands for Connecticut Hydrogen and Electric Automobile Purchase Rebate, offers rebates to purchasers of plug-in or fuel-cell vehicles. The program began in May 2015. It was announced in November 2017 that another round of funding had been procured to replenish the pool, bringing the total funding since the program's inception to \$5,064,500. According to the [CHEAPR](#) website, 2,332 rebates have been issued since the program started, and the amount of funds remaining stands at \$1,093,250. These numbers are as of January 11, 2018. (That website link can be used to access all details about CHEAPR.)

Unlike the Federal tax credit, CHEAPR is a rebate so it is of use to people who are not in a position to utilize a tax credit. Some dealers will do the paperwork and just deduct it from the invoice. Unlike the Federal program, there is a \$60,000 cap on base MSRP for eligible vehicles. If you are aware of CHEAPR but haven't checked lately, there were changes made in August 2017 with respect to which vehicles qualify for each level rebate. The maximum rebate was raised to \$5,000 (for fuel-cell vehicles, which are expensive). Other rebate levels are \$3,000, \$2,000, and \$500 based on car type and electric range.

There are 3 fuel-cell vehicles on the eligibility list. We'd like to ask our readers, has anyone seen any of them "in the wild" in CT?

Charging Infrastructure

Connecticut has supported charging stations as well as provided credits to municipalities to install charging stations through the Clean Energy Communities Program. In Westport, where town administrations have been supportive of the club's efforts, there are 19 public charging stations that have been obtained in this way. They are located at the two Metro-North stations, the public library, Staples High School,

and town hall. There are two other charging stations downtown that were installed by the Tri-Town Teachers Credit Union and Karl Chevrolet. Of these 21 charging stations, 17 are level 2 and 4 are level 1. In addition, there are other chargers in nearby towns as well as at certain rest stops on the expressways. The expressway chargers are level 3 fast chargers. And, of course, Tesla has built out its own proprietary charging network which spans the country.

CT is a member of the CARB consortium of states that follow the stricter California emissions requirements. CT is also one of the ZEV states, a subset of the CARB states, that mandate the sales of zero-emission vehicles.

Still No Direct Sales Bill

The other, more dubious, news is that CT remains a Tesla-free state (one of only 5 nationally, none in the Northeast), meaning that the company is not permitted to open stores in CT. In 2017, as in 2016, the "Tesla Bill" failed to make it to a vote in the legislature. Let's keep in mind that the most widely-owned EV marque in CT is Tesla, but customers are forced to either travel out of state or transact online. It has been reported that the state is losing \$15 million per year in sales tax revenue plus the revenue from the investment in facilities and employment. The bill is up for consideration again in this year's "short session." Contact your state legislators and tell them you support this bill.

So why do we need an "act of Congress," so to speak, for Tesla to be able to do business here? It's all about the dealer franchise laws. These laws were created many decades ago and the purpose was to protect dealerships (which are independently owned businesses) from predatory competition from the manufacturers they represent. There was never any Tesla-type scenario envisioned at the time these laws were written. And given the decidedly mixed reception that the

dealer networks of the legacy manufacturers have given EVs, along with the fact that close to 99% of new car sales are still of the internal combustion variety, it is understandable why Tesla has a business model focused on direct sales.

The proposed compromise that was unsuccessful in CT would have carved out a narrow exception to the franchise laws that would fit Tesla (and nobody else, at least not at present. For a more detailed [explanation of the bill](#), see our earlier blog post discussing it.) But Tesla has had some success in other states in arguing that the franchise laws simply don't apply. Just this month, according to the Providence Journal, DMV lawyers in Rhode Island concluded that franchise laws only apply to manufacturers with franchisees. Residents of Eastern CT can pay a visit to the Tesla showroom opening in Warwick, RI later this year.

Model 3

Some people have asked us if a Tesla Model 3 is eligible for the rebate since it is not sold in the state. It is. (The only thing to watch out for with respect to the Model 3, where there is currently a lengthy lag from reservation to delivery, is that the funds don't get applied until there is a VIN number which doesn't happen until the vehicle is in production. CHEAPR funds have been replenished several times to this point, but the availability is not guaranteed indefinitely.)

For folks interested in supporting Tesla coming to CT, the company has set up a [Facebook](#)

page and a website has been set up by a local group of [Tesla owners](#). Also, please sign our online petition by texting "EV CT" to 52886.