Where Should I Buy an EV?

Data from the Center for Sustainable Energy Helps Us Identify EV-friendly Dealers

We regularly field inquiries from club members and others asking for dealer recommendations. Usually, it follows a negative interaction with a dealership, when they walked in mistakenly thinking their inquiry about purchasing an EV would be well received. Not so fast!

It has been well documented, in the NY Times, in 2 Sierra Club shopper studies, and other reporting, that many dealers are indifferent or even hostile to EVs. But there are *some* dealerships that make an effort to sell EVs. To help guide consumers interested in non-Tesla EVs, we obtained from the Center for Sustainable Energy (CSE), the consultant that manages the CHEAPR incentive program for the Department of Energy and Environmental Protection (DEEP), the number of rebates by dealership from the program's inception in 2015 through August 11, 2020.

I am using rebates as a rough proxy for sales/EV-friendliness. It's the best we can do. You won't find retailers of expensive vehicles, for example, a Jag or an Audi, on this list because the cost of the vehicles exceeds the MSRP eligibility cap. Consumers are eligible for one rebate lifetime, so repeat customers are not included. Some dealers may end up on our list in spite of themselves. But we can still use this directionally. Tesla is not included since it doesn't have dealers.

We are covering a 5+ year period and understand that EV models come and go. Some manufacturers got out of the gate quickly

(Tesla, GM, Nissan), while others came later to the party. The Chevy Volt, once the most widely registered EV in the state, has been discontinued. A couple of years ago, Honda introduced a PHEV Clarity that generated a fair number of sales. Since then, it has greatly slowed, reportedly due to distribution having been curtailed. There have also been 5 changes made during this period made by DEEP to rebate size and the MSRP price cap that determines eligibility. Finally, some dealers have multiple stores that were not separated in this dataset.

One-Third of Dealerships have not Awarded a Single Rebate

There are 270 franchised auto dealerships, according to their trade association (Connecticut Automotive Retailers Association) in CT. 185 of them have made a sale or lease associated with one or more rebates. Less than half, specifically 104, have disbursed 10 or more rebates and only 28, or about 10%, have awarded 50 or more rebates. (The denominator is somewhat inflated due to some dealers that don’t retail eligible plug-ins.)

The Top EV Dealers

These are the 5 dealers that have awarded more than 100 rebates.

- **A-1 Toyota (New Haven)**
- **Honda of Westport (Westport)**
- **Richard Chevrolet (Cheshire)**
- **Karl Chevrolet (New Canaan)**
- **Lynch Toyota (Manchester)**

Below are other top dealers for different makes that had between 50 and 100 rebates. Some makes haven’t had any dealer exceed 50 rebates.

GM – Ingersoll Auto (Danbury), O'Neill's Chevrolet/Buick (Avon), H&L Chevrolet (Darien), Maritime Chevrolet (Fairfield), Grossman Chevrolet/Nissan (Old Saybrook), Chevrolet of Milford (Milford), Partyka Chevrolet (Hamden).

Toyota – Hoffman Toyota (West Simsbury), New Country Toyota of Westport (Westport), Middletown Toyota (Middletown), Hartford Toyota Superstore (Hartford), Westbrook Toyota (Westbrook)

Ford – Steven's Ford (Milford), Stamford Ford/Lincoln (Stamford), Crowley Ford/Lincoln (Plainville)

Nissan – Grossman Chevrolet Nissan (Old Saybrook), Harte Nissan (West Haven), Crowley Nissan (Bristol)

BMW – BMW of Ridgefield (Ridgefield), BMW of Bridgeport (Bridgeport)

Finally, 2 stores that handle numerous brands:

Valenti Auto Sales (multiple locations) – Audi, VW, Porsche, Maserati, Fiat, Volvo, Alpha Romeo, Jaguar. (We presume most of the rebates come from VW.)

MJ Sullivan Automotive Corner (New London) – Chevrolet, Buick, Cadillac, Hyundai, Genesis

It should be acknowledged that this is a changing landscape. We are relying on the past as prologue to predict EV-friendliness and we hope it proves useful. As the EV landscape evolves and new models are introduced, we will update the data to the extent that it is available. We anticipate it will be. Going forward, the CSE has advised they will be making more granular data available with their normal releases of CHEAPR data.

Used EVs and CHEAPR Incentives

The used car market, in general, is more than double that for new vehicles. That does not appear to be the case for EVs to this point.

CHEAPR Likely to Implement Used EV Incentive in 2021

CHEAPR, the CT state EV purchase incentive program, is considering offering incentives for purchases of used EVs. This incentive would be limited to lower and middle-income individuals/families. There are a number of changes being considered by CHEAPR, but with respect to used EVs, the legislature specifically authorized this incentive, the proposal was well received by the board, and the public comments were favorable. It seems a lock to happen, though there are below the line development tasks that will cause it to not be available until next year.

What is the State of the Used EV Market

We don't have access to the data that would enable us to definitively answer this. But we have some information that may be useful for drawing inferences.

During the CHEAPR board meeting of July 17th, there was a presentation by the auto-dealership representatives on the board. They stated that there are few used EVs in the

marketplace and the prices were low, creating an unvirtuous circle. They support the incentive and think that that it promises to sufficiently stimulate consumer demand so that dealers will be willing to bid more aggressively at auctions to augment the supply in the state.

The used EV incentive will differ from the new car incentive in that it will also apply to independent used car dealers. Used car dealers do not have to be affiliated with a manufacturer. A Google search for “used EVs for sale in CT” brought up a results page consisting of only independent dealers, mainly large ones like Carvana, Iseecars, and CarGurus. Those companies had both paid and organic listings on this first page of the search results. A search for “used Teslas for sale” brought up a largely similar set of sites, except that Tesla itself appeared, as it is in the business of retailing its own used vehicles. There is another company specializing in used Teslas called OnlyUsedTesla.com.

I suspect that the board members who represent the dealerships are not factoring Tesla into their thinking. For them, EVs are still a niche product and many of the non-Tesla EVs in the used marketplace are the first generation (read: low range) models. (We may be at a point where this is beginning to change as later model EVs are now coming off-lease.) And the dealers, based on the search results and their own words, aren’t making a serious effort to source and sell them. The fact that the independents are spending money on sponsored links indicates that there is at least a minimally viable business. Search is highly targeted and can yield a positive return on a small campaign.

Quantify Used EVs from the DMV File

To get some kind of quantification of used EVs relative to new, I went back to the file we recently got from the DMV of all registered EVs in the state as of July 1, just to get an

idea of what was entering the market. My proxy for used EVs was vehicles added to the file between January and July with a model year earlier than 2019. This is a rough measure and is reflected in the chart at the top of the post. Each bar represents vehicles added to the file in the first half of the year sorted by make, with the orange portion being those that are categorized as used by our proxy measure. 22% of the EVs added to the file could be characterized as used based on this definition. 47% of the vehicles added are Tesla, but only 10% of those fit this definition of used.

- This, coupled with the information from the dealers, indicates a small used EV market at this point.
- Even though it is small, there is a used EV business.
- The fact that there is no franchise requirement begs the question of whether Tesla could sell used EVs in Milford (or elsewhere in the state) using the same rationale that led to their being able to lease. In the case of new vehicle leasing, customers still have to go out of state to pick up the vehicle. Would that be a requirement if they could sell used?
- The EV Club is supportive of a used CHEAPR EV incentive, but based on this information, along with the LMI restriction, we don’t expect that it will be disbursing large sums in 2021.
- It is important, as used and possibly other incentives, are incorporated into CHEAPR, that the stats page be updated to track them separately.

The CSE, DEEP’s consultant for CHEAPR, has been sent back to model new scenarios and we will see what they forecast.

CHEAPR Rebates Close Out a Slow Q2 – Will They Make Changes?

37 CHEAPR rebates in June

This tepid number was only slightly higher than the 27 in May, closing the quarter with a soft 81 rebates total and 275 for the first half of the year. This 275 compares to 818 during the first half of 2019.

Partly, this was due to the recession, but a lot of it has to do with the changes made to the program in October 2019, when the price cap for vehicle eligibility was lowered from $50K to $42K. You can see in the graph that the numbers immediately tanked in November and have stayed low.

CSE Proposal for CHEAPR Program Revisions

The CHEAPR board met on July 17th to entertain proposed program changes submitted by their consultant, the Center for Sustainable Energy (CSE). These proposed changes were a decidedly mixed bag. DEEP is accepting public comments until August 12th. Email comments to the at deep.mobilesources@ct.gov

These are our positions:

We support raising the vehicle MSRP price cap from $42K to $50K.*
We support raising the incentive levels back to where they were prior to October 2019.*
We support the supplemental incentive for low and middle

income (LMI) individuals/families.
We support a rebate for used EVs, limited to LMI.
We support creating a pilot incentive of $500 for e-bikes for LMI.*
We advocate suspending the incentive for fuel-cell vehicles, which can be revisited in a few years.*
*Items with an asterisk are not part of the CSE proposal.
We went into more detail about these items in our previous post on the subject.
CHEAPR is extremely underspent. They have issued $287,500 in rebates through June against a budget pacing number of $1,750,000. The supplemental LMI and used EV rebates won't come online until next year. In other words, there is plenty of room to raise the levels.

CHEAPR Board Meeting Readout – Revised Incentive Proposal

The CHEAPR board virtually convened for their first meeting since late January to consider what the program should look like going forward.

To briefly recap recent history, changes were made to the rebate parameters on Oct. 15, 2019, which lowered the MSRP cap and the rebate amounts. The number of rebates immediately dropped precipitously. As CHEAPR morphed into its new administrative structure as of January 2020, these rebate levels were held over on an interim basis, which continues to this day. The board received a proposal for a revised rebate

structure from the Center for Sustainable Energy (CSE), as well as a proposal for a used EV rebate, along with requests for an e-bike rebate. These are described below, but no final decision was taken. DEEP is setting up a mechanism to receive public comments for a 3-week period. The board will meet again in 4 weeks for the next steps, which presumably could mean a vote.

New EV purchase rebate proposal:

New Vehicle Program Design		
Type	Base Rebate	Supplemental LMI Rebate
Fuel Cell EVs (FCEV)	$5,000	$2,000
All-Battery EVs >200 e-miles (BEV)	$1,500	$2,000
All-Battery EVs <200 e-miles (BEV)	$500	$1,500
Plug-in Hybrid EVs (PHEV)	$500	$1,500
MSRP Cap: $42,000		

As you can see, the proposal leaves the lower rebate for new vehicles in place and adds a supplemental LMI (lower-middle income) incentive. We do not endorse leaving the existing rebates and MSRP cap at these low levels that were established in October. There were a number of attendees from the public who also spoke in support of this position.

For the 4 months prior to the October change, there were 616 rebates awarded. The corresponding post-change period, November through February, saw 272 rebates. And this was before COVID. As a result of the changes, plus the recession, CHEAPR is 81% underspent through May (the latest available data at the time of this writing).

This is the proposal for used EVs:

Used Vehicle Program Design	
Type	LMI Rebate
Fuel Cell EVs (FCEV)	$5,000
All-Battery EVs (BEV)	$2,000
Plug-in Hybrid EVs (PHEV)	$750
MSRP Cap: None	

The supplemental LMI and used EV LMI proposed rebates are generous, and we accept the analysis that this is what is needed to make the program work.

The definition of LMI is an AGI of $50,000 for a single person and $75,000 for a family. There is a proposed mechanism to verify this through federal income tax returns.

For either LMI incentive, the consumer, upon income verification, would be given a voucher that they would then bring to the dealer. This would apply to both franchised dealerships and independent pre-owned car dealers. (The rebate for FCEVs in this context is ludicrous, but more on that later.) The two dealer representatives (Jim Fleming of the CT Automotive Retailers Association – CARA, and Brad Hoffman of Hoffman Automotive Group – both organizations are represented on the CHEAPR Board) who were on the Zoom both said that there are few used EVs available and that it will be a couple of years until there is a critical mass of inventory. They said the rebate would induce dealers to bid on used EVs that become available via an auction, which would speed the accumulation of inventory in the state. They also cautioned that the incentive has to be structured in a way that prevents "flipping."

The supplemental LMI and used EV rebates will not come online until the first quarter of 2021. The backend architecture still has to be developed.

The request for e-bike rebates met with a mixed response.

E-bikes were not part of the CSE proposal. Many on the Zoom felt that e-bikes have the potential to be a valuable component of an emission-free transportation mix, especially in the larger urban centers. A petition was submitted to DEEP to formally make this request. Here is a link to the letters. DEEP raised the question of whether it is statutorily permissible to incorporate e-bikes into CHEAPR (they will research that further). Some others felt that an e-bike rebate is a good idea, but that it shouldn't be part of CHEAPR.

Dealer Incentive

The proposal modifies the dealer incentives to be either $125 or $75, depending on the level of rebate. When CHEAPR was first begun, they were as high as $300.

Fuel Cell Vehicles

Several participants voiced skepticism about the inclusion of a fuel cell rebate, especially considering that no vehicles of this type are currently sold in the state. DEEP briefly explained (there really wasn’t time to get into it) that it had to do with the multistate ZEV and CARB arrangements that CT participates in.

The CHEAPR board

While CHEAPR had a quorum to hold this meeting, over a year after the enabling legislation was passed, and 7 months into its first year, there are still unfilled positions. As far as we know, that number is 2. The board does not include any representation from an EV Advocacy organization (ahem, the EV Club), nor are there any persons of color. (The CHEAPR board itself doesn’t appoint members, though they may have influence.)

Where are the Funds?

CHEAPR is funded to a level of $3MM for 2020. Through May, the program paid $242,000 in rebates. We estimate that payments to dealers amounted to approximately $29,000 (adjusting for Teslas). The presentation from the CSE listed an amount of $1.9MM remaining. So how was the other $829,000 spent?

These are the club’s positions:

- Raise the incentives back to the pre-October, 2019 levels. Given that CHEAPR is so underspent and the supplemental LMI and used incentives will not happen this year, there is virtually no financial risk. The data can be re-evaluated later in the year, along with updated modeling for the LMI and used incentives, to determine the plan for 2021. And even in 2021, based on the dealer POV, there won’t be that many used EV rebates.
- We support the LMI and used EV incentives.
- We support e-bike incentives. There is enough money in 2020 to support a pilot. We are concerned that the wrangling will indefinitely delay action on this.
- Dispense with dealer incentives. They aren’t having a noticeable impact. In the DEEP EV Roadmap, it was reported that incentives were often not being passed along by the dealerships to the salespeople, which is who they were intended for. And the landscape has changed. This is the concluding sentence on the subject: “*The auto dealer incentive may have been necessary during CHEAPR’s earliest years, but the availability of greater numbers, models, and types of EVs and the need to maximize available funding for EV deployment may necessitate the discontinuation of the auto dealer incentive*.”
- We have nothing against fuel cell vehicles but see no point in keeping this incentive. At least, we would like to hear a more convincing rationale. We don’t see how credits earned from an out of state sale have anything to do with a local incentive.

This is what we think. Whatever your point of view, make it known to DEEP/CHEAPR. The information about how to do that will be provided when it becomes available.

CHEAPR Rebates Continue at Slow Pace – May Update

CHEAPR Rebates Continue to Crawl – Revised Guidelines Needed

UPDATE: CHEAPR Board Meeting Scheduled for July 17th.

CHEAPR recently published updated stats through May 30. The recent trend continues. May rebates totaled 25. The breakdown is 14 BEV, 11 PHEV, and 0 Fuel Cell.

With the publication of the May dataset, CHEAPR restated its data for April. For those who saw the blog post regarding the April data, the 13 rebates have been revised to 17. It is not unusual that minor adjustments are made a little after the fact.

CHEAPR has been pacing severely under budget as defined by total rebate dollars awarded relative to a straight line pacing of the $3MM annual budget (i.e. $250K monthly). Any month where rebates are under $250K will cause this underage to widen. The amount rebated in May was $26,500 and the expended funds are now 81% under the pace number.

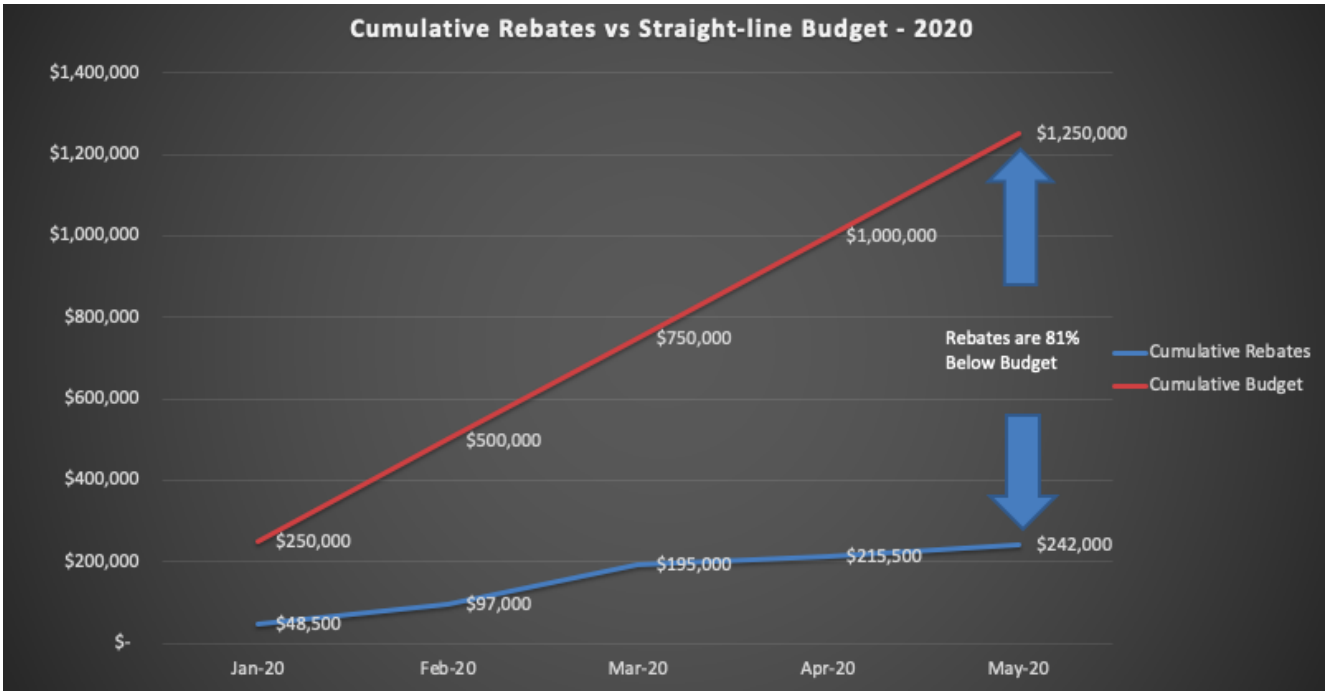


Chart: Barry Kresch

The most rebated vehicles were the Tesla Model 3 with 8 rebates and the Toyota Prius Prime, also with 8 rebates.

CHEAPR publishes stats on its website and makes an Excel download available, which is what we work from. There are two date columns and we use the application submission date rather than the sale date as that is what CHEAPR bases its own reporting on.

We have reached out to CHEAPR to request the names of the dealers associated with each rebate (for non-Teslas, obviously). Our request has been "escalated to management." It is common for our club to get asked for dealer recommendations by people in the market for an EV. By the time they contact us, they have usually already visited one or two dealers and it wasn't a pleasant experience. We have names of some dealerships that have been recommended by members, but this would be hard data and we think it will help, especially in areas of the state where we don't have a lot of members. We also understand its limitations and will act accordingly. Dealership-level info is published in some other states, NY for example.

The CHEAPR board is supposed to meet in July. We have not heard about a confirmed date. According to the website, the program will have some revisions for 2020 and we eagerly await to hear what they are. We feel the current structure is not working and have offered our input, which has been described in prior blog posts, such as this recent post from June 1.

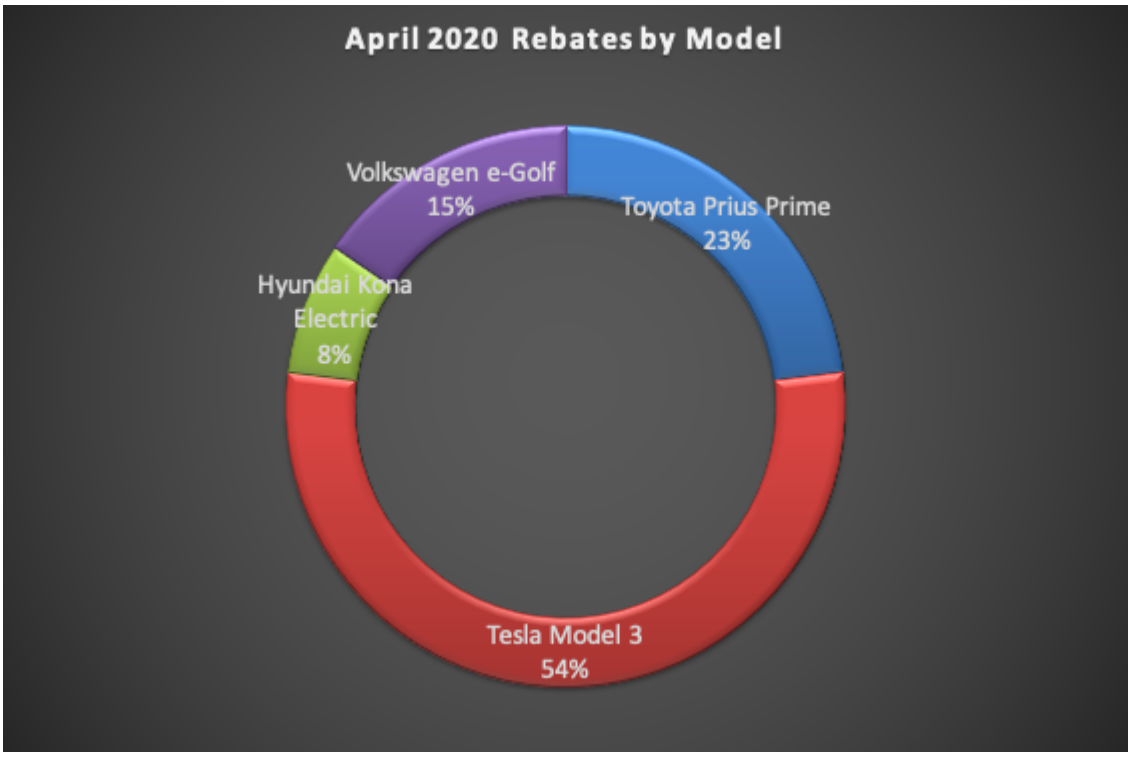
What if They Gave a Rebate and Nobody Came

Rebates at Lowest Level Ever

The lowest number of monthly rebates since its inception has been awarded by CHEAPR in April 2020, a not so grand total of 13, down from 90 in March.

There is almost no public reporting anymore of monthly new vehicle sales, but we know the automotive sector rapidly plunged in the latter half of March, which was felt over the duration of April. There have been some reports of a modest uptick in May.

Following the counter-intuitive increase in rebates in March (relative to Jan. and Feb.), when the rest of the world was collapsing, this is probably more in line with what will be



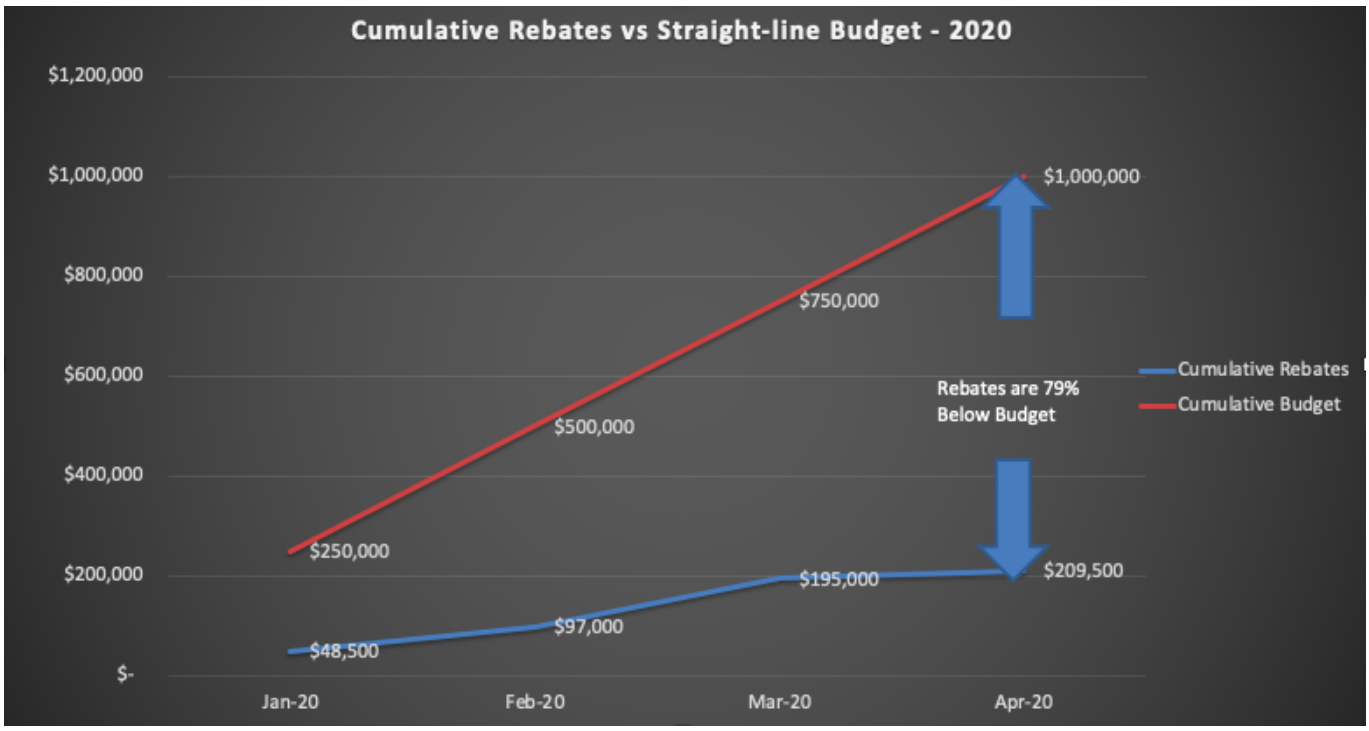
Tesla so dominates the EV market, as well as being the only manufacturer to post a sizable YOY sales increase in Q1, that how many Model 3s are rebate eligible is mostly what determines where the trend goes. It is also possible that some Model 3 supply disruption due to the temporary closure of the Fremont plant is part of the reason, as well. The Model 3 accounted for 54% of April rebates, which translates to all of 7. General Motors has been heavily discounting the Chevy Bolt, but there were no Bolt rebates in April.

CHEAPR Way Under Budget

This blog has been critical of the drastic restrictions imposed on rebate parameters in October 2019. DEEP told us at the Tesla Leasing Event in February that they were concerned that funds would run dry. That was a 3-month problem (Oct – Dec. 2019) until the new funding started, but the new CHEAPR board has yet to course-correct, despite pacing hugely under budget.

The CHEAPR budget is $3 million annually and there are no rules about how it is supposed to pace. There are good reasons for carefully managing the budget. Temporary funding disruptions are, well, disruptive. However, if we look at the

budget on a straight-line cumulative basis and compare it to the dollar amount issued for rebates, by that definition it is pacing 79% below budget.



There is also the consideration of a forthcoming rebate for used EVs. To this point, there has been no announcement, and we are doubtful there will be one anytime soon because the Roadmap recommends that an outside contractor be engaged to design and implement it, meaning this presumably hasn't happened yet. We also expect that an incentive for a used EV will be lower than for a new vehicle, and will include an income cap, as well as a lower MSRP cap. We don't see this as a budget-buster.

EV Roadmap and CHEAPR

The subject of purchase incentives is accorded 15 pages in the EV Roadmap and it traces the origins and thinking about the program. It is still true today, as it was in 2015 when CHEAPR was begun, that while battery prices are on a downward trajectory, EVs have not yet reached cost-parity with ICE vehicles. Cited in the Roadmap is a stat from the Multi-State

ZEV Action Plan that there was an average purchase price difference of greater than $10,000 between comparable EV and ICE vehicles in 2016. While EVs cost less to run and maintain, this headline price difference is a real barrier.

I have to say that it was a surprise to learn from the Roadmap that until 2020, CHEAPR was a pilot. For 5 years. Well, okay. With the legislation that was passed last year, it is now reconstituted with an independent board that remains situated in DEEP for administrative purposes.

Something that *has* changed is that two manufacturers, Tesla and General Motors, have exceeded the unit sales threshold for the federal EV tax credit and have passed beyond the phase-out period. There is no federal incentive for vehicles from these two manufacturers. The Roadmap cites projections from EVAdoption that indicate the next automaker to cross the sales threshold will be Nissan in the latter half of 2021. (This projection predates the COVID-19 crisis.) Attempts in Congress to modify the program and raise the threshold have not met with success. In this context, CHEAPR assumes a larger role.

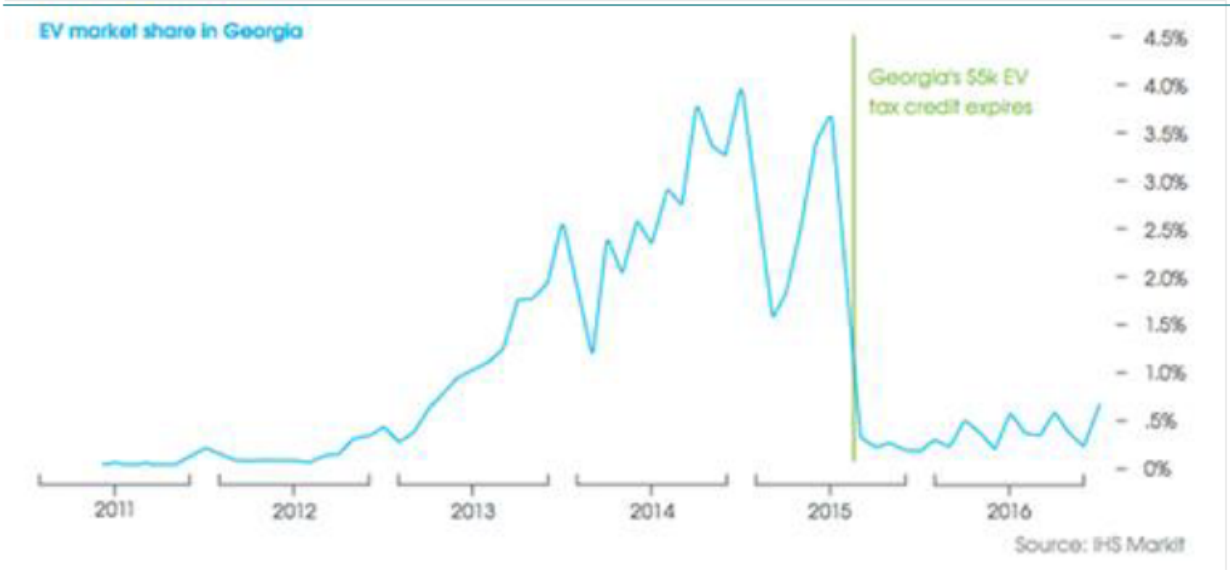
Value of Purchase Incentives

The EV Club of CT is a supporter of CHEAPR and available data indicate that incentives matter. CHEAPR has handed out 5,984 rebates through April 30, 2020. Given that there were 11,677 EVs registered in the state as of Jan 1, 2020, the program looks to have played a meaningful role. Survey-research of rebate recipients reports that over 80% of respondents cite the incentive as being either extremely or very important to their decision to acquire an EV.

The Roadmap cites experiences of similar programs in other states. One of them is Georgia, which has been cited previously in this blog, as a dramatic example of a “light switch test.” When Georgia lawmakers rescinded a generous tax credit of $5,000 and added an annual EV fee, sales fell off a

cliff. This is a graphical representation of what happened that was published on page 89 of the Roadmap.

Figure 19: Effect of the Georgia state EV tax credit repeal on Georgia's EV adoption rates



Rebate Parameters

There are several variables that go into how much of a rebate if any, a given EV purchaser qualifies for, which we are calling rebate parameters (and which DEEP refers to as "bins).

- Available funding
- Rebate size and tiers
- MSRP cap
- Future consideration of a rebate for used EVs, along with a likely income cap.
- One rebate lifetime per licensed driver

Rebates are offered for battery electric vehicles (BEV), Plug-in Hybrid Electric Vehicles (PHEV), and Fuel-Cell Electric Vehicles (FCEV). Rebate parameters have changed several times since the program began. The size of the rebate was originally pegged to the size of the battery pack but was modified in 2017 to be based on EPA-rated electric range. Battery pack size is not directly indicative of the range, so this approach makes sense. Also, over time, there are changes in technology (substantially longer ranges) and other aspects of the

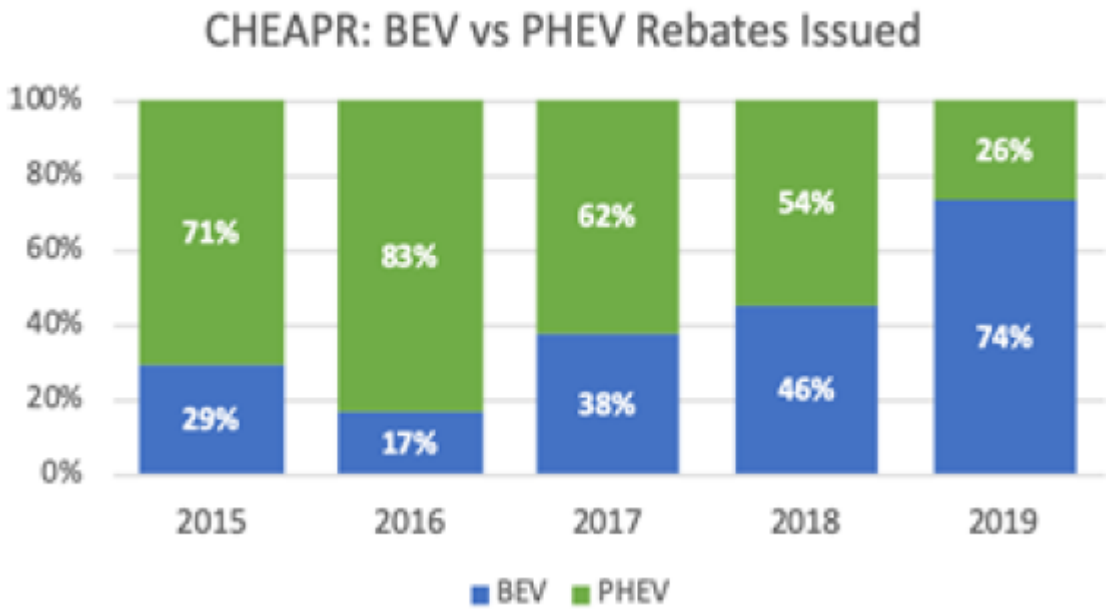
environment that gradually, but consistently, evolve.

The MSRP cap initially was $60,000. It was changed to $50,000 in October of 2018 and then to $42,000 where it currently stands. Rebate tiers are currently $5000 for any FCEV, $1500 for a BEV with a range of at least 200 miles, $500 for a BEV with a range of fewer than 200 miles, and $500 for any PHEV.

The number of rebates awarded has declined significantly since the October change and it is obviously because the lower level now excludes almost all trim levels of the Model 3. This blog has discussed this previously on April 2nd and in earlier posts.

We also noted that the lowering of the MSRP caused a shift in the mix of rebates toward PHEVs, which we discussed here. (April is the low-volume exception.) But you wouldn't know this from the Roadmap, which on page 83, contains this exhibit of rebates by fuel-type.

Figure 15: Rebate percentages by vehicle type over time



The footnote indicates that the rebate data had been updated through July 26, 2019, in other words, before the changes were made. It seems clear that lowering the MSRP cap was counter-

productive, both from the perspective of consumers being able to use the rebate along with making the funds less efficient in terms of zero-emission miles subsidized. The market in general is trending toward BEVs which may eventually change things. But we strongly feel that the MSRP should be raised to at least $50,000 (same as MA) or higher (NJ is $55,000 and NY is $60,000). The rebate levels could be left in place while the run-rate is evaluated with the higher MSRP, whatever modeling has been done for used EVs, and projections for when this depressed market normalizes. We are not aware of the law allowing unused funds from one year to be carried forward.

Dealer Incentive

A headline that appeared over a NY Times story in 2015 read, “A Car Dealers Won’t Sell: It’s Electric.” The unwillingness of many dealers to sell EVs has been a persistent bottleneck. So the idea that DEEP included in the original CHEAPR formulation a $300 incentive that would go to the dealership for each EV sold seemed a worthwhile experiment. It may sound slightly farcical to pay a business that is in the business of selling cars to sell cars, but if that is what it takes to seed change, so be it.

The incentive was subsequently lowered from $300 to $150. In the Roadmap, DEEP openly questions whether it is worth it and whether the funds would be better allocated to consumers to stretch what is a modest budget when compared to incentives in other states. (For example, the New Jersey per capita funding is 50% higher.) DEEP also found that the majority of the incentives were kept by the dealership, i.e. not given to the salespeople, which was kind of the basic idea.

This was underscored by two EV Shopper Studies done by the Sierra Club in 2016 and 2019. In the latter study, it was found that 74% of dealers did not have a single EV on the lot. The study did not report out CT separately (only CA had sufficient sample size for that) but in the 2019 study, there

were no local dealers among those visited in the research that scored the highest rating. Our EV Club does know of some dealerships that do a good job with EVs and we appreciate them. We just wish they were the norm and not the exception.

VW Works Around Its Dealers in Germany

The most interesting recent development is from VW in Germany. They have announced that VW corporate will take responsibility for selling EVs and the dealers will only act as agents. Dealers will arrange test drives and deliver the car, but will not otherwise be part of the sales process. They will receive a fee for each vehicle they deliver and they will not have to buy the car. This last part is particularly interesting because it eliminates the risk of having to carry the cost of financing the vehicle if it is a slow-seller. It is the closest one can come to direct sales while still maintaining the franchise sales model and implicitly acknowledges its limitations. Here is a more detailed description published in ChargedEVs.

Dealer Recognition Program

Instead of the dealership financial incentive, we endorse DEEP's proposal to work with the CT Auto Retailers Association (CARA) and create a dealer recognition program. If this is promoted to the consumer, it could serve to avoid some of the negative feedback loop that currently exists. We encourage that care is taken in giving this award so it isn't vaporware. EV Club of CT works with the Sierra Club to conduct its EV Shopper Studies and our feedback to them will be to separately track visits to dealerships that are recognized in this way to see if their actions match the certification.

Fuel-Cell Electric Vehicle Incentive

CHEAPR has included FCEVs in its incentive plan from the beginning when incentives were set at $3,000. In July of 2016,

the FCEV incentive was raised to $5,000. And when the MSRP cap was lowered to $42,000 for EVs, it was raised to $60,000 for FCEVs (they're more expensive).

There have been exactly zero of these incentives awarded and there is a total of 3 FCEVs registered in the state. There is only 1 public hydrogen refueling station in CT.

FCEVs were dropped from the federal tax credit in 2017.

The rationale in the Roadmap is to support all promising new technologies and DEEP recommends continuing these levels for FCEVs for the duration of the current funding, which is through 2025. Their goals are modest: 591 FCEVs in the fleet and 6 or 7 refueling stations in the state by 2025. Keep in mind that a hydrogen refueling infrastructure has to be built from scratch. The other rationale that we have heard is that FCEVs have a longer range (and a short refueling time if you can find a place to fill up). The range part of that used to be the case, but now the longer-range BEVs have a similar range as FCEVs and higher mpg-e. Certainly, the differential in incentive can no longer be justified by range alone.

This blog is not against FCEVs, which are zero-emission vehicles. We do feel that DEEP/CHEAPR over-emphasizes them and, at times, uses them to represent CHEAPR in an intellectually dishonest way. At the Tesla Leasing Event in February, the DEEP spokesperson said that the CHEAPR program offers rebates of up to $5,000. It may be a convenient headline, but it is only true in the narrowest technical sense. For all practical purposes, the max rebate is currently $1500. And almost no Tesla qualifies for even that.

This is a link to the Roadmap. DEEP recommendations for CHEAPR are on page 92. We won't repeat them here.

As we have made clear, these are our priorities:

- Raise the MSRP cap.

- Move quickly to implement an incentive for used EVs.
- Raise rebate levels, funds permitting.
- Eliminate the dealer incentive and re-purpose those funds for consumers.
- Develop guidelines for a dealer recognition program, which hopefully includes some input from consumers.
- Publish rebate data at the dealership level as they do in New York. Arguably, that alone is a dealer recognition program.
- Make e-bikes eligible for incentives under CHEAPR.

And, finally, one area where we are in agreement with the Roadmap, is to look to the future and the potential for leveraging incentives by partnering with utilities, as part of TCI, and with the manufacturers.

CHEAPR Rebates Up as Car Sales Plummet

First Quarter Sales Results Were Terrible for the Industry, but a Sliver of a Silver Lining for EVs

The first-quarter economic data were just released and as bad as expected (GDP down 4.8%) with worse to come.

According to Automobilemag.com, nationally, automobile sales were down 12% for Q1 year over year because of a 41% decline in March.

Only two manufacturers reported a quarterly gain. Kia was up

1% and Tesla was up 40%. All others fell by as much as 30% (Nissan). Since Tesla basically carries EV sales, it is possible that EV market share is up for the quarter. General Motors was down 7%, but the Chevrolet Bolt was up 36%. That could be due to this being the final quarter of the phase-out of the federal tax incentive for GM, which is over the 200,00 unit sales threshold. It now joins Tesla as the only manufacturers that no longer have the benefit of this tax credit. We await final data for other EVs.

Despite a stronger than expected earnings call from Tesla, and after-hours momentum for the stock, there was some unfortunate hyperbole from Elon Musk over the temporary closure of its manufacturing plant in Fremont, CA. (Its plant in China is re-opening.) The company is ahead of schedule in its rollout of the Model Y, which is expected to be an even stronger performer than the Model 3. The economy may be cratering, but their problem seems to be more supply than demand.

CHEAPR Rebates Run Countertrend and Rise in March

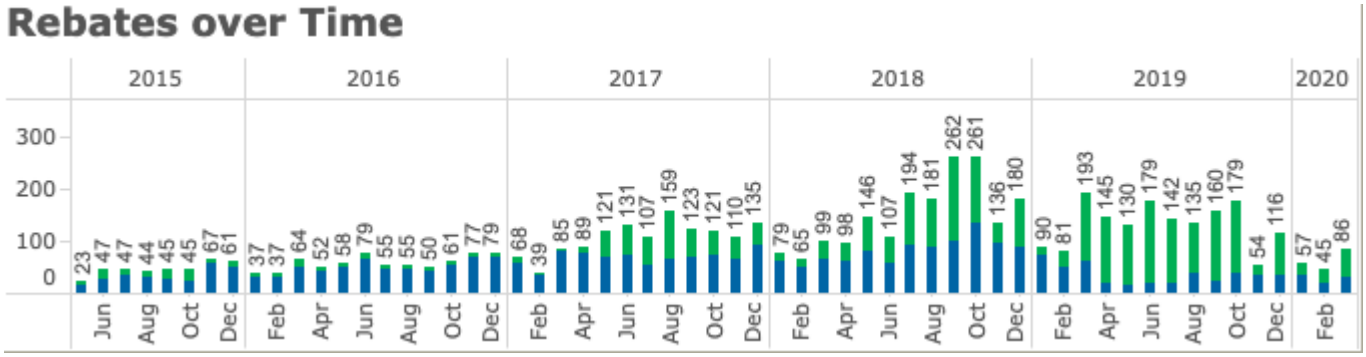
March was clearly the worst month of the quarter by far, but CHEAPR rebates actually rose relative to January and February. As shown in the graph at the top of the post, this is almost completely driven by the Model 3, despite the fact that only the most basic trim level falls under the revised MSRP cap of $42,000. 39 of the 86 rebates in March were for the Model 3, a lower percentage than it was before the change in October 2019, but still surprisingly high.

CHEAPR data are loaded through March 31. They typically update monthly and lag about a month.

Despite the March spike, the annual run rate based on a straight-line projection of the quarter is only $756,000, still well under the $3 million allocated. The messaging

remains on the CHEAPR website that revisions to the program are coming this year, but, hey guys, it's almost May!

This is a screengrab from the CHEAPR website showing rebate levels by month from inception through March 2020. The levels rose as EVs gained more traction and, in particular, Tesla launched the Model 3, but then fell after the changes in October. The green shading is for BEVs and the blue is for PHEVs. The amount of green shading has increased and is driven primarily by the success of the Model 3, the discontinuance of the Chevrolet Volt, and a softening in the number of rebates for the Toyota Prius Prime. The introduction of the Chevrolet Bolt and Nissan Leaf Plus have had a more modest impact.



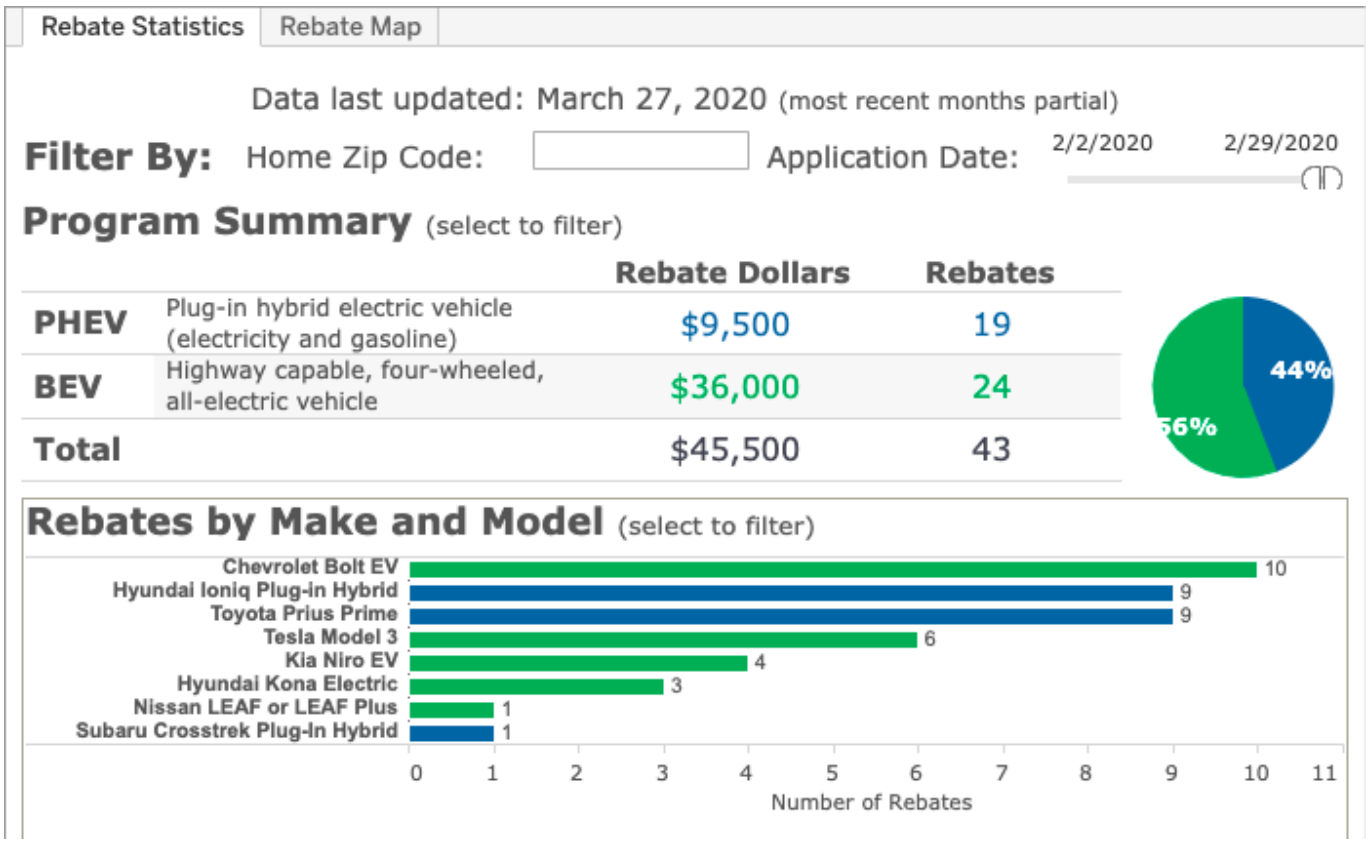
CHEAPR Update and COVID Outlook

CHEAPR Rebates – The Doldrums Continue

Given the after-effects of the change in rebate parameters, the numbers seen in the graph were not a surprise. This information dates through the end of February, which is the

latest that has been released on the CHEAPR stats page.

The detail for the month is below:



February saw low rebate numbers, continuing the trend from January and Q4, due to the lack of improvements in the CHEAPR rules. The economic impact of COVID-19 has yet to be visible in this timeframe

The balance tipped slightly to BEVs because Bolt rebates increased while both Ioniq PHEV and Prius Prime rebates decreased. Tesla remains at a very low level since all but the most basic trim level of the Model 3 are now excluded. Deliveries of the Model Y have begun, though we don't know how long it will be before volume ramps. That vehicle runs a few thousand dollars more than the Model 3 so we don't expect it will qualify for rebates.

Last we heard, the new CHEAPR board was not completely filled, but they have a quorum. All that's been done has been to extend the same parameters that were in effect in Q4 2019 into

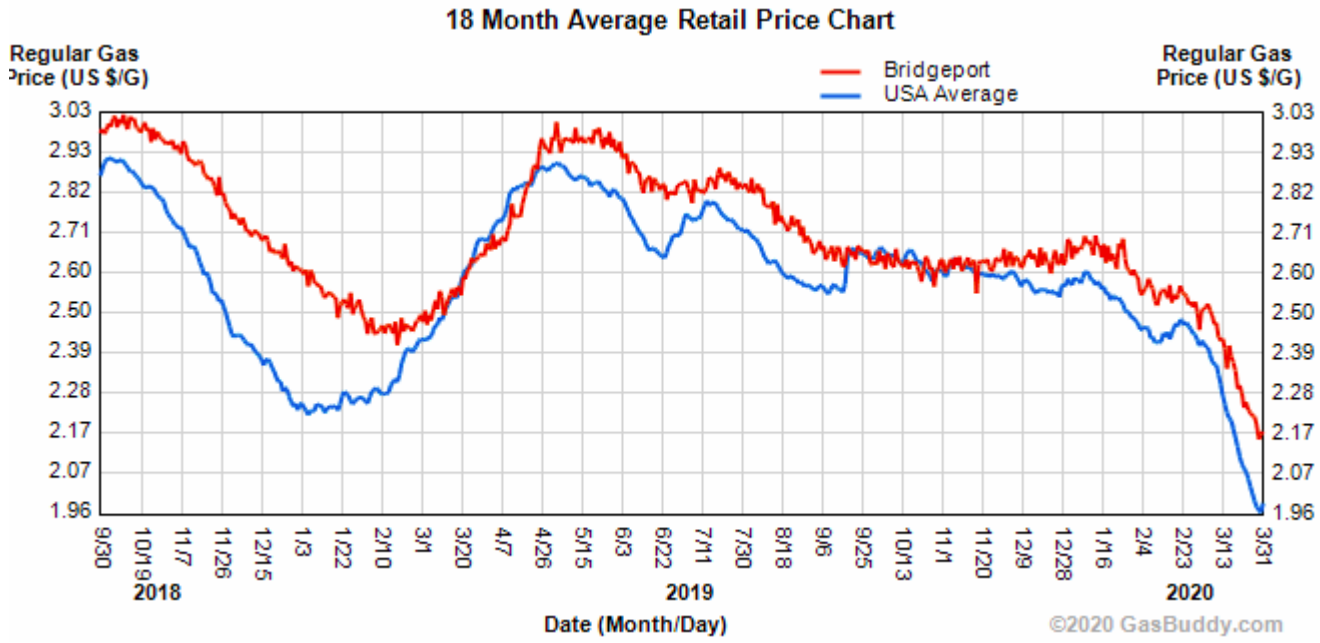
2020. One-quarter of the way into the new year, there is still no news on promised revisions or on used EV purchase incentives.

As can be seen on the screenshot from the CHEAPR stats page, there was a total of $45,500 in rebates that were disbursed. This works out to $546,000 annually on a straight-line basis, against a budget of $3 million.

It is likely to be a difficult road ahead for at least the next few months. We can't rule out the possibility that federal aid meant to counteract the impact of the recession on state finances will be inadequate. Early signs point to that being the case, as evidenced by what Governor Cuomo of NY had to say at a recent press conference. Budget cuts are inevitable and we wonder if CHEAPR will fall victim to that.

Plummeting Oil and Gas Prices

Part of this environment is plummeting gasoline prices. This is a recent chart from Gas Buddy and, well, you get the idea. The blue line is national and the red line is Bridgeport, CT.



Gas prices, or more specifically, the price per barrel of oil,

are falling not only because of reduced demand from a recessionary economy exacerbated by social-distancing measures but also because of a price war between Russia and Saudi Arabia. Either one of those things would have caused this, but in this instance, demand began to fall, OPEC wanted to implement production cuts, Russia did not go along with it, and now Saudi Arabia is aggressively cutting prices, presumably to pressure Russia. This has accelerated the fall in the price per barrel. Absent some interim mediation, the next OPEC meeting is in June.

This could have knock-on effects for American (and other) shale oil, which according to Investopedia, has a floor price of anywhere from $40 to $90 per barrel. (This could be part of why Russia wants to do this.) Below is a chart of oil price trends. Shale oil is a heavily leveraged industry, so the impact could conceivably be felt in the bond market.

Source: oilprice.com

This blog is not a fan of shale oil. Fracking is environmentally destructive and produces a tremendous amount of natural gas, most of which is being flared at the well, spewing greenhouse gas emissions.

This week we also had the news of the administration formally implementing the rollback of phase 2 CAFE, though the question of whether the CARB states can return to a separate standard is still being litigated. This move will please the fossil-fuel industry. The rest of us lose. Even the automakers are less than enthused. It will accelerate carbon emissions, cause more sickness and death from air pollution, and, according to a report in the NY Times, and based on the administration's own data, it will impose an economic cost on society as high as $22 billion.

Opportunity, Should Policy Makers Choose to Make Something of it

Despite the headwinds, there is likely more stimulus to come and this could be an opportunity. The first packages rightly focused on stanching the bleeding with unemployment insurance and support for small businesses. When the outbreak wanes, there will still be a need for fiscal stimulus. It is an opportune moment to craft such legislation so that it includes renewable energy infrastructure and purchase incentives. Wouldn't it be nice to replace lost shale oil production with renewables and stationary storage?

Renewables and energy efficiency measures were a successful aspect of the 2009 stimulus legislation. And from that previous experience, it follows that there are data. They know what worked. This could help policy-makers to understand how to best incorporate long-term climate change objectives within short-term stimulus needs. Also, the energy-efficiency part of the 2009 stimulus did not include building infrastructure to better defend against severe storms and rising sea levels, which have now become a fact of life. This supports both resiliency and job creation. If this administration does not have the foresight to understand this, then perhaps we'll have to wait and see if there's a new sheriff in town in 2021. The

passing of more legislation will almost certainly continue into next year.

In the meantime, it falls to us to accelerate EV adoption, one person at a time.

CHEAPR Update with Data Through Jan 31

Updated Track of CHEAPR Rebates – Data through 1/31/20

We have been keeping watch on rebate activity since the most recent change made to the CHEAPR rebate parameters, which lowered both incentives and price cap. The lower level of rebates continues as portrayed in the chart atop this post. The chart tracks the number of rebates by month from January 2017 (the program began in May 2015) through January 2020, which is the latest published data. CHEAPR usually updates their data about 4 weeks after the fact, so we are a few weeks from seeing February data. Although you don't see it in the chart, the breakdown of rebates continues in its shift to PHEVs, which accounted for 57% of the rebates in January.

CHEAPR has posted an announcement on its website that they are reviewing the parameters and we should expect a change later this year. It is a very general update and we do not know what changes they are considering or when they will be implemented.

The announcement also notes that they are looking into a rebate for used EVs, but again, no specifics.

The enabling legislation that was passed in 2019 established a $3 million annual allocation for CHEAPR beginning January 2020 through 2025 and authorized the development of the used EV incentive. The funds come from the clean-air surcharge on automobile registrations.

CHEAPR Structure

The other part of the announcement that we found interesting was that even though the program began in 2015, it had been considered to be a pilot all this time. Who knew! Now it has a more official status as noted in Public Act 19-117. As part of this structural modification, CHEAPR is getting a board of directors. This board is in the process of being filled. To our knowledge, there has only been one meeting so far this year. This nascent process seems to be part of the slow speed of change.

This organizational transition may cause delays in processing rebates.

This is a link to Public Act 19-117. It is a lengthy document and most of it has nothing to do with EVs. The part about CHEAPR begins on page 115.

Possible Data Conflict

The CHEAPR website shows rebate detail. If you toggle the slider, it reports 47 rebates for January. The website also offers an Excel file for download, which is what we used to create the chart. This file has two date fields: date of application and date of sale. We used the date of sale. Both numbers differ from the HTML feature. The date of application count is 57 and the date of sale count is 44. I guess that

means your mileage will vary.

Run Rate

Based on the January data (and we would like to point out that there is a small difference in the data in the visual that is on the CHEAPR website and the Excel file that we downloaded to create the chart), the run-rate is about $500,000 annually. January has typically been a somewhat slow month for EV sales, generally speaking, but if the parameters are not revised, the allocated funds will not get spent.

There is one other factor to note that may indirectly affect rebate volume, which is that General Motors phases out of the federal tax credit as of March 31. There were 7 Chevy Bolt rebates in January. This car has been a tepid seller, to begin with, but losing the federal tax credit won't help.

We eagerly await further news regarding their specific plans.

Ideas to Improve CHEAPR

Interesting Approaches to EV Incentives in Neighboring States

This blog has published a number of articles about the recent changes in the CHEAPR program and how they have impacted rebates. Our feeling is that these changes were misguided and have sub-optimized the program's effectiveness. We were told

by DEEP that there was a concern about depleting funds in Q4 2019. We respect the concern but still feel that it was not managed well. And it has gone away for the near-term with the replenishment authorized by HB 7205, though the earlier levels have not been restored as of this update in late February 2020.

The changes in the MSRP cap from $50,000 to $42,000, along with reductions in the size of the rebates, caused a steep falloff in the number of rebates and total dollar amount rebated, such that they are pacing well under the current allocation. The vehicle most impacted was the Tesla Model 3, though there were significant declines among the Chevy Bolt and Nissan Leaf as well.

As of this writing, we still await an announcement with respect to used EVs. A used EV incentive was authorized in HB 7205, but DEEP, which has been in the process of standing up a new board for CHEAPR, has not yet acted, nor posted anything on their website about when it might. When it does, this post will be updated.

Impact on Efficiency

All state incentive programs tinker with incentive levels and rules. Technology changes, and, of course, funding streams vary in size. Focusing on the former, the point of changing the parameters to keep up with the technology is intended to incentivize a longer electric range equating to lower emissions. Unfortunately, recent changes in CHEAPR have had the opposite effect. From the period January 4 to October 2, 2019, the weighted average electric range of incentivized EVs was 219 miles. Post incentive change, October 28 to December 31, 2019, this number declined to 176 miles. This happened because the changes hit BEVs much harder than PHEVs. This calculation does not normalize for incentive levels which were slashed across the board, and which would cause the dollar

amount per electric mile to decline even though BEV rebates and efficiency got crushed.

So what are the highlights in New Jersey, New York, and Massachusetts?

Beginning with max MSRP, all of these states have caps that are at least as high as CT used to have.

NJ – $55,000

NY – $60,000

MA – $50,000

NY has a little extra spin, which is that, even though the base level incentives don't apply over the cap, the state still offers a $500 rebate for any EV with a cost higher than $60,000.

Efficiency

New Jersey goes at efficiency head-on. The rebate is directly tied to the range: $25 per mile, up to $5000. (That's 200 miles for those who don't have calculators handy.) It is the most generous of the incentives in this region at the top end and it doesn't get more linear than that.

MA has made ineligible PHEVs with a range of under 25 miles. This seems like a sensible adjustment at this point in our EVolution. There is also an incentive for used EVs. It is offered through the TMLP and MGED utilities and only applies to their territories. There is no gradation, just a $900 incentive with a purchase price cap of $15,000. The price cap

was set relatively low because the used EV incentive is intended to target less affluent buyers. It was felt that this cap is low enough that they don't have to get involved with burdensome income-verification procedures.

Dealership Data

A distinguishing feature of NY is that they publish rebates by dealership. That is a great idea! The dealership landscape is still fraught for EVs. The recent Sierra Club EV Shopper Study reported that 74% of dealers do not have a single EV on their lot. Our club did a lot of the fieldwork (dealer visits) for the Sierra Club in CT, and some interviewers reported that even where dealers are selling EVs, the salespeople would push them toward ICE vehicles. That said, some dealerships do make the effort to sell EVs, and we try to support them. We have people come to us for dealer recommendations, and we help them when we can, but data such as this show objectively and comprehensively which dealerships are walking the walk.

We think that raising the MSRP cap should be the top priority. That, along with adopting a rebate scale that better incentives efficiency, along with providing dealer transparency, would be a big improvement.

UPDATE: MARCH 1, 2020

This is a notice that has been posted on the CHEAPR website, so perhaps they are acting on one or more of these points.

The CHEAPR pilot program is currently transitioning to the new CHEAPR program established under Public Act 19-117. The new program will offer rebates for both new and used electric vehicles! The CHEAPR board is reassessing current program incentive levels for new EVs and evaluating the implementation of the used EV incentive component. Current incentive levels will remain in effect until the new CHEAPR program is launched later this year. Stay tuned, incentive levels may change in 2020.