CHEAPR Closes 2020 With an Uncertain Outlook

CHEAPR Rebate Data Released for December 2020

The EV purchase incentive program awarded 74 rebates in December. This is slightly higher than the 40 from November, but of a piece with what we have been seeing over the past 14 months since the program changes. There is typically a jump in December as federal tax-credit eligible vehicles are acquired before the year-end. That bump is a bit smaller nowadays since it is no longer applicable for Tesla or General Motors.

The October 2019 program changes were a lowering of the vehicle eligibility MSRP cap from $50 to $42 thousand and a lowering of incentive levels.

The monthly numbers rise and fall mostly driven by the number of rebates for the Tesla Model 3, despite the fact only the most basic trim level is eligible. Actually, that has been true ever since the Model 3 began ramping deliveries, which predates the 10/19 program changes. This may be less the case going forward as reports are that the Model Y is outselling the Model 3. The Y will qualify for CHEAPR if it is the base model with zero changes, and so it is not expected to push that many rebates. There have been zero to date.

The Model 3 accounted for 29 rebates in December. There was only one other model in double digits, the Toyota RAV 4 Prime (PHEV) with 13. We do not know if this is a supply constrained car, but there are early signs that it could be a successful model.

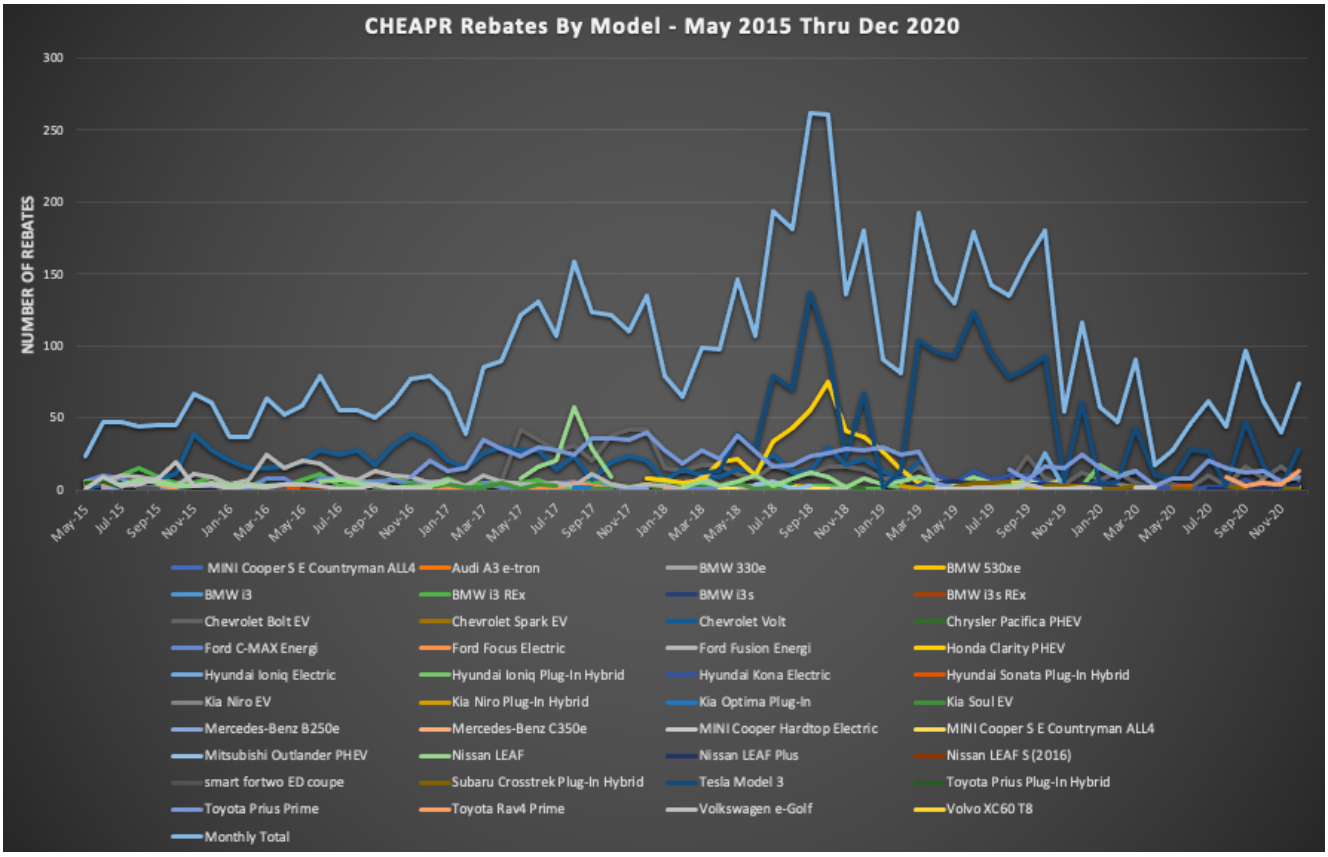
Final Totals for 2020

There were a total of 663 rebates handed out in 2020. This compares to 1605 in 2019. However, the better comparison is arguably the 12 months ending September 2019 to look at the impact pre and post program change. If we look at Q4 2018 through Q3 2019, there were 1832 rebates.

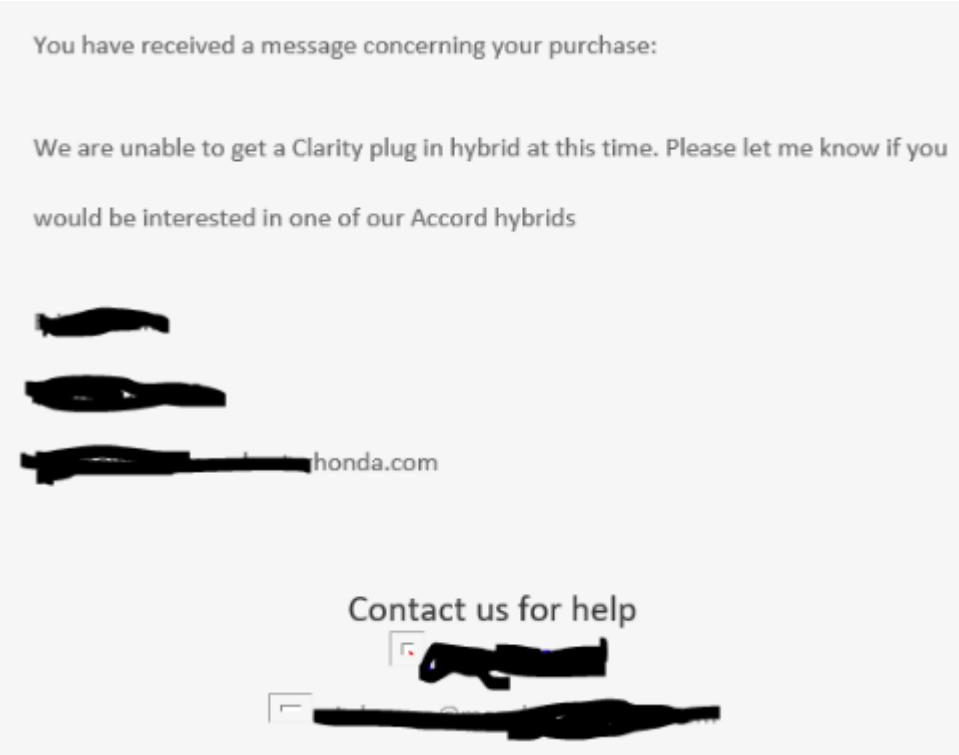
Since both the quantity and size of rebates were reduced, the program only spent $708,500 (plus admin and dealer incentive costs) against a budget of $3 million.

DEEP has advised that unspent funds will be rolled over. That is better than losing them but not as good as getting more EVs on the road sooner.

Below is a chart of rebates by vehicle model by month since the program’s inception through 2020. The light blue line across the top is the total monthly number of rebates, the same number as in the chart at the top of the post, and the drop-off beginning in late 2019 is readily apparent. The other lines are individual vehicle models.



The dark blue line that spikes in 2018 and 2019 is the Model 3.


You have received a message concerning your purchase:

We are unable to get a Clarity plug in hybrid at this time. Please let me know if you would be interested in one of our Accord hybrids

[redacted]

[redacted]honda.com

Contact us for help

[redacted]

The yellow line that spiked briefly in late 2018 is the Honda Clarity PHEV, which is an interesting case. The car was well-received, customers were buying, and then it seems to have done a vanishing act off dealer lots in CT. There was reporting that Honda had pulled back and was using it as a

compliance car. We received this communication from a recent EV shopper, a flavor of the switch pitch that is unfortunately so common. The note from the dealer indicates lack of availability, but the CHEAPR rebate graph clearly shows a dearth of sales (there were zero rebates in Q4, 2020). Translation: Honda isn't bringing these vehicles into the state.

When the program changes were made in late 2019, the Model 3 numbers dropped (along with some other, smaller volume vehicles losing eligibility altogether, e.g. the BMW i3).

CHEAPR Directionless

For over a year, there has been a notice on the CHEAPR website that a new set of program revisions will be forthcoming. This hasn't happened. A newly authorized board met in January 2020, then monthly meetings from July through December, but no meetings since and none posted. DEEP indicated that it may have the board vote offline. We then heard there was a vote, which as far as we know was 2 or 3 weeks ago, but no word has been forthcoming. There were as many scenarios as there are board members, so consensus may still be elusive. The scenarios include an income-limited used EV incentive and a similarly income-limited supplemental incentive. The board has been divided about the MSRP cap and incentive levels, which is what we assume is delaying matters. Hopefully, it will get sorted soon as the program is severely under-performing.

At the very least, there should be some communication. We assume that the as yet unreleased January data will be as low-performing as the past year plus.

It is the position of the EV Club that previous incentive levels should be restored (or something similar), the MSRP cap should be restored to $50,000, and the used and supplemental incentives should be included. The fact that there is roughly $5.2 million in funds for 2021 should cover it, and it will

provide valuable data going forward for future program modeling.

We Suggest a Website Improvement

The CHEAPR website was clearly not designed with a consumer in mind. To actually learn about the rules, one has to comb through the FAQs. There is no front door that has the basics of the program: incentive levels, MSRP restrictions, once per driver per lifetime, and other pertinent rules. DEEP could accomplish this with something as simple as adding another element to the left nav, preferably near the top, called program basics (or similar) that links to a page with this top-level information.

We have tried to partly compensate with an incentives page on this website. And, oh yeah, that phantom $5000 incentive should go behind the curtain.

It Is Time for EV Freedom

Direct Sales of Electric Vehicles (EVs) Should Be Permitted in CT

Post by Barry Kresch

Governor Lamont has signed onto the Transportation Climate Initiative (TCI), a regional cap and invest plan. At the same time, the state is falling behind the goals set forth in the Multi-State Zero Emission Vehicle Action Plan. The time has come to permit direct sales of EVs in CT.

Consumers deserve to come first and should be able to freely choose EVs that fit their lifestyles, needs, and budgets to accelerate the adoption of electric vehicles and more rapidly transition to a zero-carbon economy.

Outdated dealer franchise laws have been used as protectionism to prevent Tesla and other new EV manufacturers from opening stores in CT.

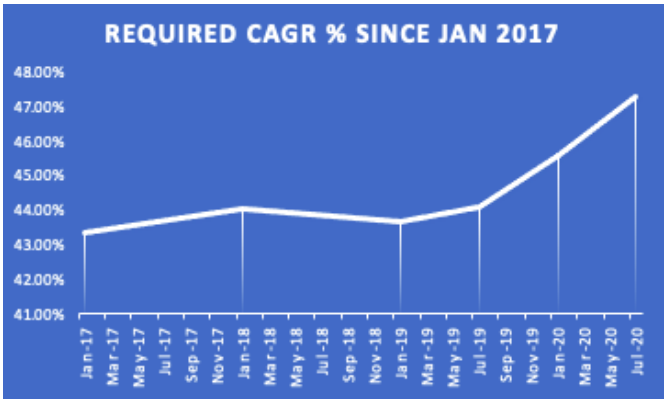
The EV Club is behind a new act, The EV Freedom Bill, that has been submitted to the legislature. It proposes that manufacturers that produce exclusively electric vehicles and have no existing franchised dealer network be permitted to sell their vehicles directly to the consumer. The definition of "sell" is inclusive. It encompasses sales, leasing, delivery, and service. It is important to specify these components. For example, even though Tesla has gained the right to lease (and conduct test drives) at its Milford service center, customers still have to go to New York to pick up their vehicles. (Even residents of the eastern part of the state must go to NY – they are not permitted to avail themselves of Tesla facilities in RI or MA.) The proposed bill also allows for new "ownership" models, such as subscription. The world is changing.

The bill obligates manufacturers to meet existing consumer protection laws (i.e. lemon laws) or regulations and to have an adequate plan to service their vehicles within the state.

Multi-State ZEV Action Plan

The state of CT is a signatory to the Multi-State ZEV Action Plan. This plan commits to getting 150,000 EVs on the road by 2025 and 500,000, about 20% of the fleet, by 2030. There were 12,624 as of July 1, 2020. That means we would need a compounded annual growth rate (CAGR) of 47.29% to hit the 2030 number, which translates to the state being in a pretty big hole. The chart below tracks needed CAGR for each data point I

have since 2017. In this case, a rising line is a bad thing. (An updated number for January 1 is due to be reported soon.)



The required compound annual growth rate required to meet ZEV goals has been increasing since Jan 2019 due to slow increases in registered EVs.

The ZEV Action Plan sets a goal but has no enforcement mechanism. It consequently relies on legislators, regulators, and citizens to make good decisions in order to get us there. The EV Freedom Bill is something that can have real near-term impact. Unlike other measures, such as purchase incentives, this will not cost the state any money. To the contrary, opening the state to innovative EV business models will increase buyer choice while positively contributing to public health, the achievement of our stated ZEV and emission-reduction goals, while generating revenue.

Opposition From Entrenched Interests

The roadblock to direct sales has been the dealership franchise laws. These laws, dating to the 1930's, were passed at the time to protect independent business people who were opening dealerships to retail and service the products of an affiliated manufacturer. That was the manufacturers' preferred

method of expansion. But independent businesses, having gone to the trouble of establishing a market locally, sought to protect themselves from the possibility that an affiliated manufacturer would open up across the street and put them out of business. At the risk of repetition, the point was dealers seeking protection from their own affiliated manufacturers. These laws have now been re-purposed to prevent a manufacturer that doesn't have a dealer network from opening stores. (It is due to these laws being so old that Tesla is now able to lease from its New Milford facility. Leasing didn't exist at the time the laws were written and, therefore, wasn't specifically prohibited.)

The auto dealership and manufacturer associations have effectively mobilized to block direct sales when it has come before the legislature in the past. They're effective lobbyists. We would like to see them devote this level of effort to selling EVs.

Existing Auto Companies/Dealerships Not Selling EVs

It pains me to type that headline and I hope it changes at some point. This club supports all EVs, but we also have to recognize reality, and consider that this industry needs to evolve or adapt its model.

Tesla and other EV companies don't want dealerships. Their position is that this model doesn't work for them and they have a point! Legacy manufacturers have been slow to pivot to EVs and dealers have been even slower to sell them. This has been reported on extensively, by the **NY Times**, by the **Sierra Club** (74% of dealers nationally were not selling EVs in 2019), and others, including the EV Club of CT.

In the most recent **EV Club analysis** of DMV data, we saw that from July 2019 to July 2020, there was a net increase of 1827

EVs in the Department of Motor Vehicles' registration file. 1361 of these were Tesla, a whopping 74%.

Club analysis of **CHEAPR** data similarly shows that less than 40% of the dealerships in the state have disbursed at least 10 rebates over the course of 5 plus years.

Aside from direct sales, other models are bubbling to the surface. One striking example is in Germany where Volkswagen has **given up on its dealers** to sell EVs. The company has gotten some good reviews for its ID.3 model (not available in the US) and has a larger, forthcoming ID.4 for which it is taking reservations. Sales of these vehicles in Germany are handled through VW Corporate. The dealers act as agents, providing test drives and delivering vehicles, for which they receive a fee. Importantly, the dealers do not take title to the cars, which changes the sales dynamic completely. This means that VW is taking on a major risk in terms of carrying costs, but nonetheless, feels it is worth it. UPDATE – Apparently, it *is* worth it. FeedSpot reports that with a successful introduction of the ID.3 in September, "Volkswagen passenger cars managed to leap to the number one spot in all-electric vehicles over the full-year 2020 with a share of 23.8% in Germany…"

It's Not Only About Tesla

There are numerous EV startups poised to enter the market, and several that are taking reservations, such as Rivian and Lucid, have announced they plan to sell directly to consumers.

Even though the word "Tesla" was not included in previous versions of "direct sales" bills, those bills were written in such a way that they were only applicable to Tesla. The EV Freedom Bill applies to all EV manufacturers without a dealer network.

It Is About the Consumer

A study by **Cox** found that just one in three consumers were "very satisfied" with the dealership experience.

The Federal Trade Commission has **blogged** about this subject. Two sentences: "Dealers contend that it is important for regulators to prevent abuses of local dealers. This rationale appears unsupported…" "Such change can sometimes be difficult for established competitors that are used to operating in a particular way, but consumers can benefit from change that also challenges longstanding competitors."

It Is About Connecticut

CT is the only state in the region that does not permit direct sales. Keeping out companies that manufacture environmentally friendly products sends exactly the wrong message to the kinds of innovative companies we seek to attract to the state to grow the economy. It undercuts what the state is communicating with the TCI, offshore wind, and the ZEV MOU.

Tesla and these new companies want to sell EVs in CT. Let's let them. Let's encourage them. Let's buy them!

Note:

The bill now has a number: SB 127.

Please join us and reach out to your state legislators telling them you support this bill. We need to lower our carbon footprint now. This really is a power of the people moment. If they hear from you, they will take notice.

An easy option is to use the Engage page that Tesla has set up. Non-Tesla owners can use it, though you will need to set up an account. It has a form letter, which can be customized. It will know who your legislators are.

You are also welcome to write your own thoughts. This is an online page that enables you to find out who your legislators are.

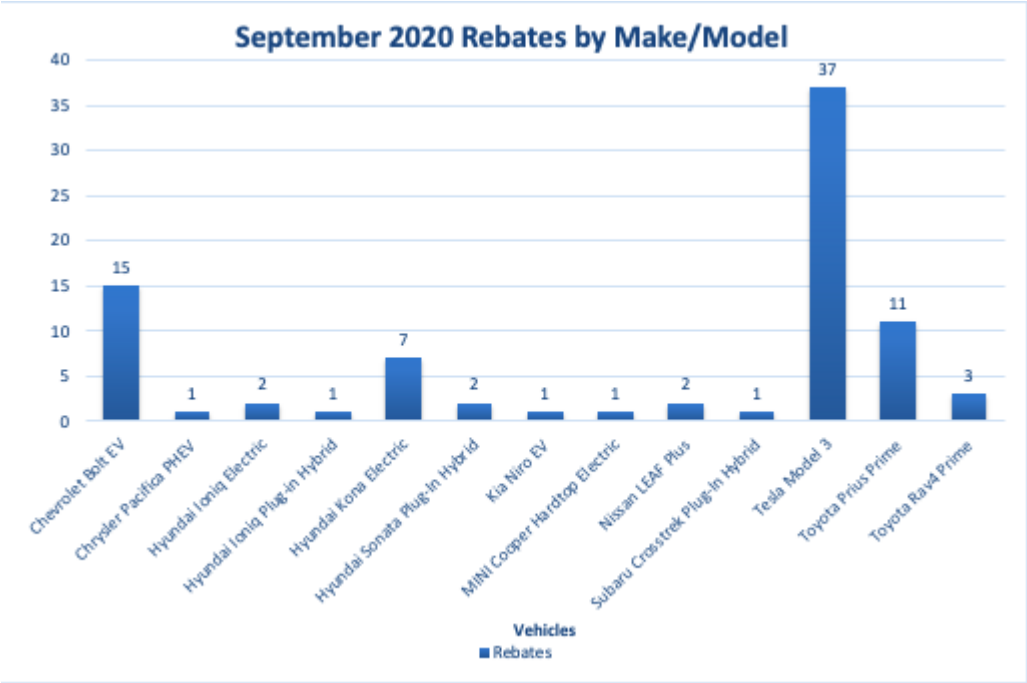
September CHEAPR Stats Update and Pending Vote

Spike in Model 3 Rebates leads to Slightly Stronger Rebate Activity in September

The September data were published on Friday, Oct. 30th, and show 84 rebates awarded with a $104,000 spend. Also, August was restated with rebates increasing from 40 to 44. A restatement of the prior month is common with these data releases.

The base-level trim of the Model 3 can still qualify for a rebate, even under the lowered $42,000 MSRP cap, and when those numbers are up, it raises the overall level. There were 37 Model 3 rebates, followed by 15 from the Chevy Bolt, possibly driven by some significant discounting. The spend

level was $104,000, still pacing well under the allocated budget.



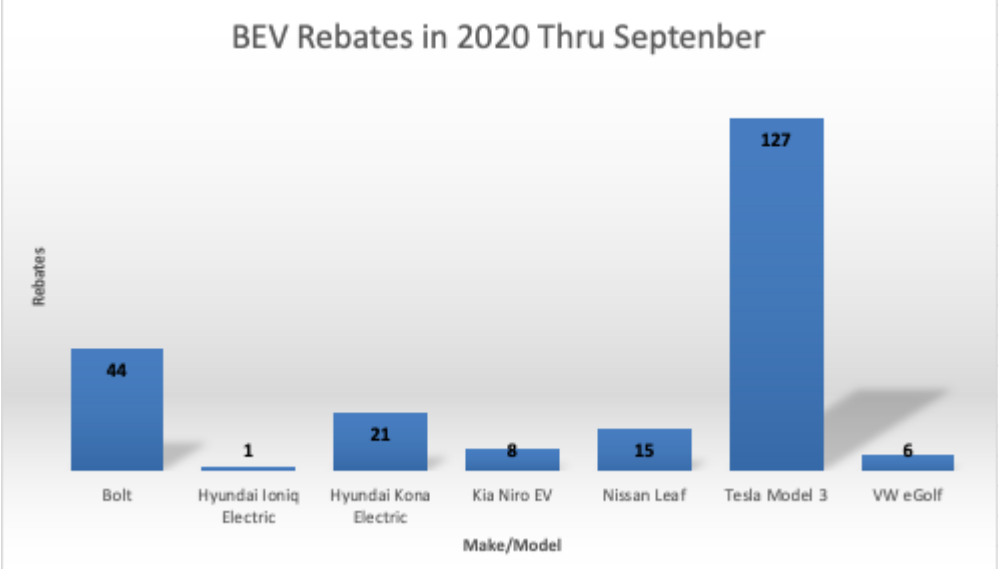
Rebate awards total $402,000 for all of 2020 through September against an annual budget of $3,000,000 (less admin and dealer incentives).

Pending Vote

CHEAPR changed the size of the rebates and the MSRP eligibility cap in 2019, which led to a large drop in the number of rebates awarded and the dollar amount spent. This was done at the time out of concern for the possibility of funds running dry late last year. Ever since then, there has been an announcement on the CHEAPR home page that revised rules will be coming in 2020. New rules were finally proposed in July. There was much disagreement about the proposal. Subsequent meetings in August, September, and October failed to resolve differences. No proposal has yet to be brought up for a vote. No meeting date is posted as of Nov 1. The CT EV Coalition does not like the incentive structure as originally proposed.

DEEP has asked their consultant, the CSE to go back and model additional scenarios. There are a number of variables in play, including an income-limited used EV incentive, an income-limited supplemental incentive, temporary stimulus incentive during this period of a weak economy, size of the rebate, and MSRP budget cap. We have blogged about a number of these issues before – here and here most recently.

The biggest sticking point, in my opinion, is the MSRP cap. At $42K, it is lower than neighboring states – NJ ($55K), MA ($50K), NY ($60K). More to the point, there just aren't many BEVs that qualify. Below is the count of rebates by BEV model for 2020 to date.



There are only 7 models receiving rebates and just 4 that received more than single digits. If we exclude the Model 3 as our estimates are that ~75-80% of them are not eligible, and the eGolf, which is being discontinued, that leaves only 5 that are eligible, 3 with more than single digits. The eGolf is being replaced with the ID4, which will be ineligible. A loaded Bolt or Leaf Plus will exceed the threshold. The new Ford Mach-E begins at $43K. And, of course, the base trim level of the Tesla Model Y is over $42K. We feel CHEAPR needs to support the new generation of EVs, which include popular

SUV or crossover form factors. Let consumer choice dictate where the rebates go and not put a thumb on the scale.

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.

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

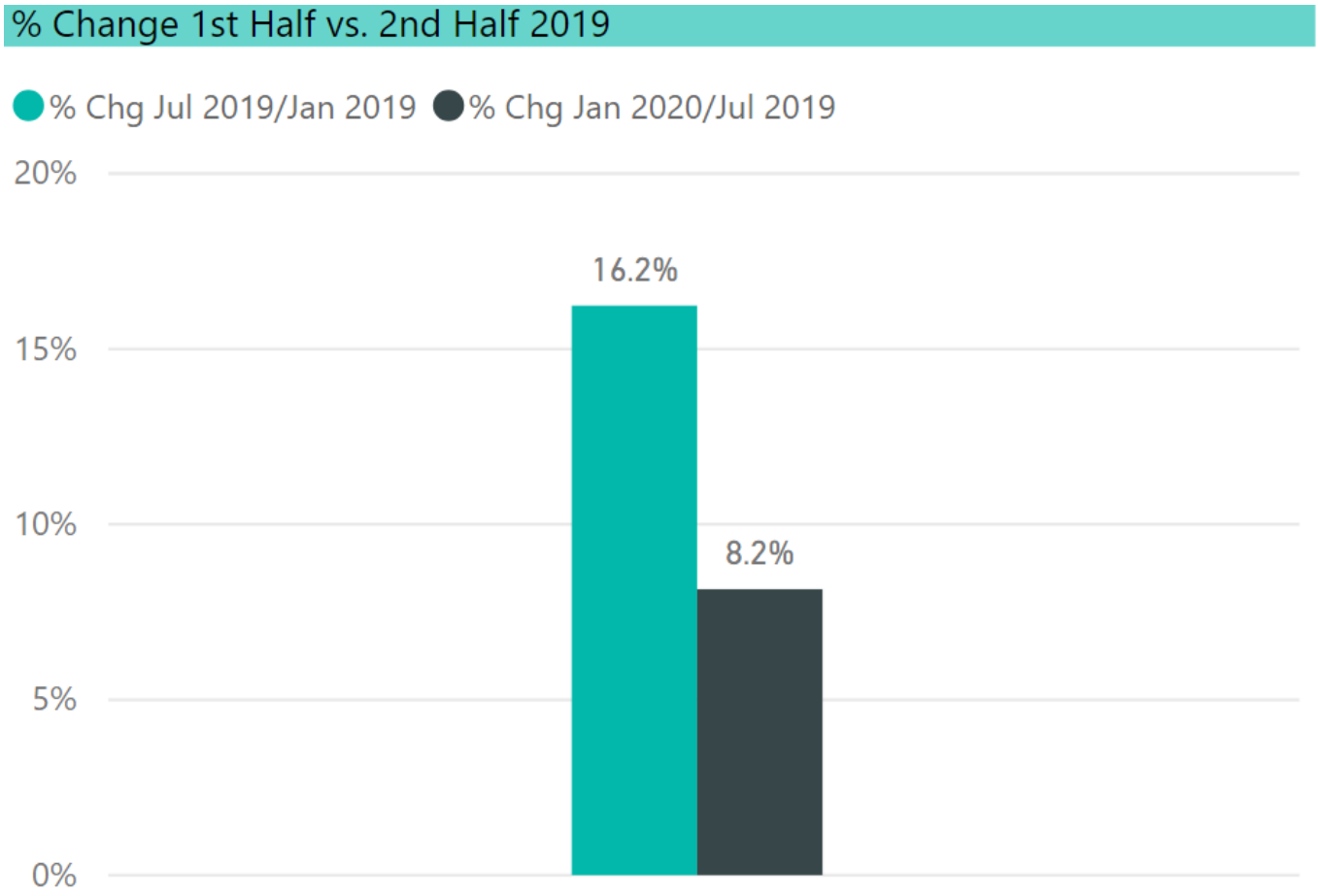
In addition to the rebate data, we now have data for EV sales nationally and EV registrations in CT for the full year 2019

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.



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).

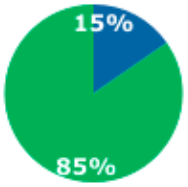
The word count is constrained for these Op-Eds and the format does not permit graphical exhibits, so this post will be used to expand on a few points. First, these are the graphics from the CHEAPR stats page reflecting the pre and post periods relative to the date of the incentive changes (the incentive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

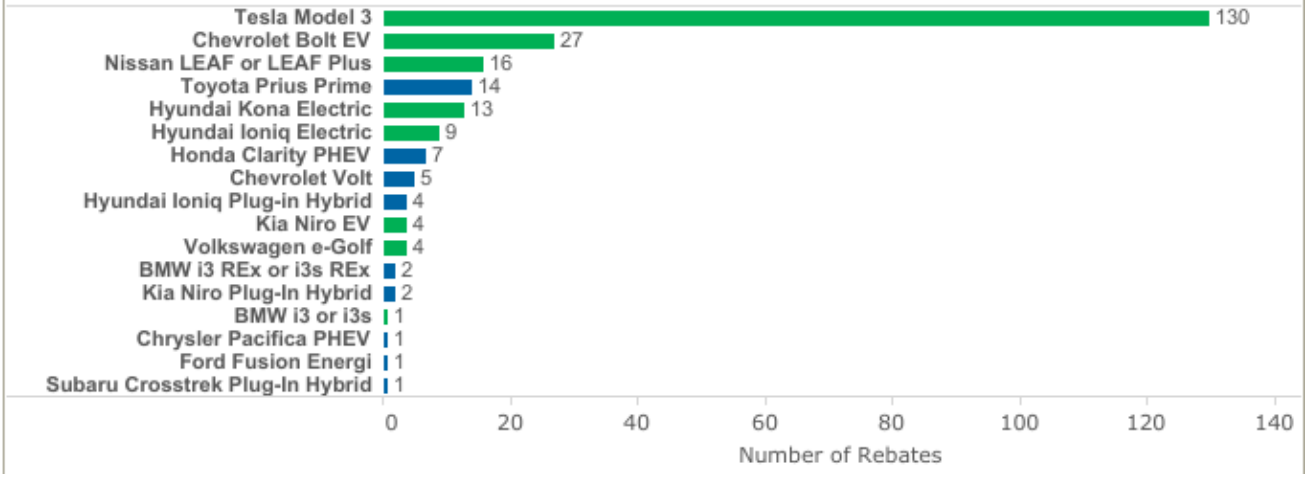
Filter By: Home Zip Code: Application Date: 9/3/2019 10/10/2019

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)



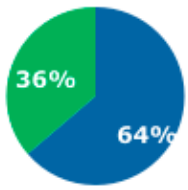
"Pre" period, Sept 3 through Oct. 10

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

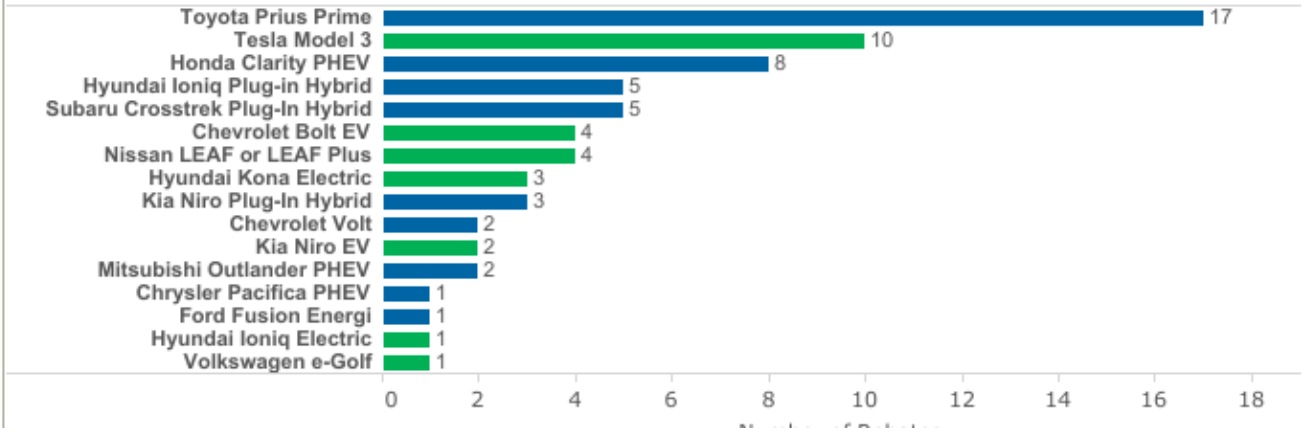
Filter By: Home Zip Code: Application Date: 10/23/2019 11/30/2019

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.

Tesla Now Able to Lease Vehicles in CT

Tesla Has Obtained a Leasing License in CT

While Connecticut remains one of a handful of states that prohibit Tesla from opening stores, the company is now able to assist customers with lease arrangements at their Milford service facility. The dealership franchise laws that stand in the way of the company opening stores do not contain a restriction against direct from manufacturer leasing.

Tesla also sells its renewable energy products at the Milford location.

They are still not permitted to offer test drives, take orders for customers wishing to purchase a vehicle, arrange for financing, or offer vehicle delivery, but there is just this little bit of daylight with this license being put in place.

74% of Auto Dealers Nationwide Are Not Selling Electric Vehicles

Sierra Club releases update of REV Up EV Shopper Study

In 2016, the Sierra Club conducted a study where shoppers went to auto dealers to “shop” for an EV (though in some cases, it was people in the market actually shopping). The results were dispiriting with many dealers not offering EVS, not charging the cars for test driving, having few on the lot and not prominently displaying them.

The prior study was done only in the 10 states following the California fuel economy rules (CARB states). This new study is national, though it breaks out a number of the results by the CARB states versus the rest of the country. While there are some differences in the data points between the studies, the results that aren’t much more encouraging, starting with the 74% headline number (which means that there were no EVs present on the lots of 74% of dealers visited). The picture is slightly better in the CARB states.

Aside from dealer experience, the study makes an effort to provide a broader context, and cites, for example, data on media expenditures by the auto companies on behalf of EVs, which are extremely minimal.

To the extent there was positive information here, there are some dealers that are genuinely making an effort. But it is very ad hoc and dealer dependent. There is no apparent systematic or effective effort on the part of the OEMs to

encourage or demand that the dealers make a serious EV sales effort.

The EV Club of CT was recruited by the Sierra Club to send shoppers to dealers and we were happy to oblige.

It should be noted that this isn't a secret shopper format. The Sierra Club did not direct participating shoppers not to disclose what they were doing.

The full summary can be found here.

CT EV Coalition Responds to DEEP EV Roadmap

This is the text of a letter that was sent to DEEP in response to the issuance of their EV Roadmap, which was published last month.

November 12, 2019

Commissioner Katie Dykes

Deputy Commissioner Vickie Hackett

CT Department of Energy and Environmental Protection 79 Elm

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Dear Commissioner Dykes and Deputy Commissioner Hackett:

Thank you for the opportunity to provide comments in response to DEEP's October 11, 2019 Notice and Opportunity to Comment on its draft Electric Vehicle Roadmap for Connecticut (draft Roadmap). The Connecticut Electric Vehicle Coalition (the EV Coalition or EVC) is a diverse group of clean energy advocates and businesses, organized labor, and environmental justice groups that support policies that will put more electric vehicles (EVs) on the road in Connecticut to achieve significant economic, public health, and climate benefits for our state.

The Connecticut EV coalition strongly supports the state creating a more strategic and ambitious strategy on zero emission vehicle (ZEV) deployment, one of several key strategies that will help the state tackle climate change, improve the public health and air quality, as well as create economic development opportunities for the state.

The EV Coalition appreciates the significant work that went into developing the draft Roadmap and looks forward to working with the Department to finalize a product that will serve as a useful guide for stakeholders and the State in equitably achieving transportation sector emissions reductions consistent with Global Warming Solutions Act (GWSA) goals.

The transportation sector is the largest source of greenhouse gas emissions in the State and responsible for the majority of smog-forming nitrogen oxide emissions. Connecticut will not achieve its GWSA commitments or achieve health-protective ambient air quality standards without significant electrification of transportation and reductions in vehicle miles traveled. To be effective, we believe that the Roadmap must strike the right balance between providing sufficient

direction and avoiding over-prescription. The Roadmap should provide clear guidance to relevant market actors about expected roles and responsibilities and clarify both prioritization and timing for the recommendations in the document. At the same time, the Roadmap should eschew prescribing specific technologies, particularly given that technologies in the transportation sector are rapidly evolving and detailed specifications may become less appropriate over the duration of the Roadmap's planning horizon.

With regard to prioritization, the Roadmap should clearly identify what needs to happen and when in order to ensure the state is on track to meet climate goals. The final Roadmap should include timeframes for its recommendations and identify high priority actions. As discussed further below, those high priority actions should include establishing aggressive public fleet electrification goals, including goals for transit fleets; conducting outreach to environmental justice communities to better understand local transportation and design electrified transportation solutions appropriate to each community; creation of a low-income EV rebate that is available for purchase of both new and used vehicles to help get more low-income residents into EVs; requiring the state's utilities to develop electric rates that mitigate the impact that current demand charges have on deployment of fast-charging stations; recommending the adoption of EV-ready building codes so that all new construction is pre-wired for Level 2 EV charging; and recommending the elimination of the prohibition on direct sales of EVs in Connecticut, along with additional incentives for existing dealers to increase sales of EVs.

In prior comments, the EV Coalition urged DEEP to support its Roadmap with analysis of public charging infrastructure needs.1 We appreciate DEEP using the EVI Pro-Lite tool for this purpose in the draft Roadmap.2 DEEP should clarify, however, why the infrastructure need figures identified in the

Roadmap using the EVI Pro-Lite tool differ from those provided in the final Governor's Council on Climate Change recommendations,3 and include figures regarding the charging infrastructure needs for supporting 500,000 ZEVs in Connecticut in 2030. In addition, we urge DEEP to conduct sensitivities around key parameters (e.g., ratios of plug-in hybrid electric vehicles to battery electric vehicles, distributions of battery ranges across the vehicle fleet, and availability of home charging) to better understand ranges of public and workplace Level 2 (L2) and DC Fast Charging (DCFC) plug needs for 2030.

Recommendations regarding Equity:

The draft Roadmap minimally addresses equity and environmental justice issues. We commend the acknowledgement to prioritize these communities, but believe the final Roadmap needs to go further. Connecticut's current transportation sector favors the single-occupancy vehicle and trucks. Low-income and minority communities are often among the worst affected by air pollution caused by these vehicles, affecting their respiratory and cardiovascular systems, and the environments in which they live. Any further action to electrify the state's transportation sector needs to address outstanding equity issues. While the policies noted below are addressed within our comments on the relevant sections of the draft Roadmap, we present them below for emphasis.

Connecticut should provide incentives for the purchase of older model EV's in order to expand the option of an EV purchase to low and moderate-income households. Currently, our EV rebates only apply to the sale or lease of a new EV, this should be altered to include a low- income rebate applicable to both new *and used* EVs so lower-income households can take

advantage of the program.

In addition, a minimum percentage of the benefits of electrified transportation programs should be established for environmental justice communities and state-identified Economic Opportunity Zones. In addition to the types of community-specific programs intended to identify electrified solutions to the specific transportation needs of these communities (discussed below), it may be appropriate to carve out a percentage of EV charging stations to be sited in environmental justice communities particularly in areas where residents shop, work, and attend school and church.

Since public transportation is more widely used in low-income and minority communities the Roadmap should also prioritize the need for more electric buses and school buses. Electric buses do double-duty – they reduce emissions and take cars off the road, lessening Connecticut's road congestion problems.

With the proper mix of EV charging stations, EV rebates, and electric buses, we can ensure that the Roadmap properly acknowledges our most overburdened and underserved communities.

Recommendations regarding Public and Private Fleets:

While public fleets comprise only a small fraction of total vehicles in Connecticut, they are ideally designed for the state to truly "lead by example." Studies show that increasing consumer awareness and familiarity with electric vehicles is important in influencing consumer purchasing decisions. Public fleets are one of the areas where Connecticut has the greatest direct control over the rate of vehicle electrification and creates opportunities to (1) increase direct EV driving experience with state employees and (2) increase the public

visibility of EVs on our roads.

The current recommendation regarding the state fleet in the draft Roadmap—that the state "should consider setting targets for annual EV procurement for the state fleet, beginning with the goal of 5 percent of state vehicle in the first year"—is too weak: The state must set aggressive targets for electrifying public fleet vehicles.

Section 93 of Public Act 19-117,4 establishes several targets for EV deployment within the state fleet, which should inform the recommendation in the EV Roadmap.

- PA 19-117 requires, beginning January 1, 2030, that at least 50 percent of cars and light-duty trucks, and 30 percent of buses, purchased or leased for the state fleet to be "zero-emission."
    - In light of the state's express policy of reducing GHG emissions and need to reduce other air pollutants, we urge the state to go beyond the minimums established by the legislature and adopt a policy of procuring 100 percent zero-emission vehicles where such vehicles meet the performance needs for which they will be used, leading to stronger public fleet commitments: with a goal of ensuring that at least 50 percent of the cars and light-duty trucks and 30 percent of transit buses in the State's fleet are zero-emission by 2030.
- PA 19-117 expands the Department of Administrative Services (DAS) commissioner's annual legislative reporting requirements to include a procurement plan that aligns with these state fleet requirements and a feasibility assessment for the state's purchase or lease of zero-emission medium and heavy-duty trucks; and
    - In alignment with the policy recommendation above, the feasibility analysis should be limited to the ability of commercially-available zero-emission vehicles to meet the performance needs required by

the state. Any cost-benefit analysis should include estimated fueling and maintenance costs over the full useful life of the vehicle.

- PA 19-117 requires the DAS commissioner to study the feasibility of creating a competitive bid process for procurement of zero-emission vehicles and buses, and authorizes the commissioner to proceed if it would achieve cost savings.
    - The final EV Roadmap should encourage DAS to explore this option, as well as the possibility of joint procurement opportunities with municipalities and other

Regarding DEEP's recommendation to update and publish guidelines for the installation of EVSE at state-owned facilities and public and private EV charging stations, DEEP has the authority to do this, and we encourage the agency to move forward with this activity. Using its ability to "lead by example," state-owned and operated facilities should adopt minimum percentage charging requirements for parking areas, and such requirements should be included within all state-funded school construction projects. DEEP promoted similar recommendations to be included within the state building code for new residential and commercial construction, and these recommendations should establish the floor for state-owned and operated buildings.

Connecticut should support and incentivize electrification of private fleets by: (1) working with private actors and utilities to provide advisory services to fleet owners considering electrification; (2) developing rebates or incentives to support associated charging infrastructure needs; and (3) requiring utilities to develop rate designs that mitigate the impact of demand charges.

Recommendations regarding EVs beyond LDVs:

We strongly support incentives to electrify MDV and HDV. Connecticut should look to New York's truck voucher incentive program5 to identify ways to incentivize purchases of cleaner, electric MDV and HDV.

While we encourage including fleet conversion to EVs as part of the electric utilities' distribution system planning, DEEP should recognize that private fleet charging depots will likely need to be sited on-premises, so it may not be possible to target underutilized electric distribution circuits for fleet charging depots.

Accordingly, we should not let load decisions be the sole determinant in driving our EV infrastructure decisions. While it is clear that there are potential benefits from using EVs as a source of load smoothing and energy storage, the EV Roadmap should prioritize infrastructure investment where such investments will meet EV demand and benefit local communities. The goal should be to develop a comprehensive plan for building out our charging infrastructure in a manner that maximizes the combined, total benefits of increased EV deployment.

As noted in the GC3's December 2018 Report, some of the largest GHG reductions from the transportation sector are likely to be achieved by increased investment in EV buses6, and these investments will likely be in our largest cities and most heavily-trafficked transportation corridors. While these are likely not areas with excess distribution capacity, nevertheless this is one critical area where investment must be made. The electric distribution companies (EDCs) should provide location-specific maps where excess distribution capacity exists so they may be evaluated against other

criterial that would support investment in EV charging infrastructure.

Additionally, EV time-of-use rates can be an effective mechanism for shifting vehicle charging to off-peak times when the distribution system may be otherwise underutilized.

With respect to the pending California Advance Clean Trucks rule, we encourage Connecticut to continue to develop policies that leverage California's authority to enact stringent motor vehicle emissions standards and polices beyond the floor established by the federal government. We should not pause our efforts pending the outcome of the current federal lawsuit, but rather position ourselves to act quickly when the court rules in favor of California and Section 177 states, including Connecticut.

Recommendations regarding Expanding EV Charging Infrastructure:

1. Building codes and permitting requirement recommendations

To encourage widespread adoption of EVs to meet Connecticut's GHG reduction goals, policies must support the necessary infrastructure build-out to encourage consumer confidence with respect to "range anxiety" and support public education regarding EV technology. One critical component is expanding EV charging infrastructure, particularly in settings that vehicle purchasers cannot directly control (e.g., charging in public and semi-public/workplace settings, charging at multi-unit dwellings). It is also critical that new construction be capable of supporting EV charging infrastructure so that charging stations can be cost-effectively added as the need

for them grows.

There is widespread consensus that the best time to prepare a location for the future installation of EV charging infrastructure is during the initial construction, rather than post-construction retrofitting. A recent analysis by Energy Solutions for the California Electric Transportation Coalition (CalETC) found that installing EV ready parking spaces during a building retrofit can save four to six times the cost of a standalone installation.7

The EV Coalition strongly supports the adoption of EV-ready building codes. DEEP must be an active participant in the adoption of updated building codes to ensure the necessary accessibility to EV charging as market penetration of EVs increases. To that end, DEEP should support adoption of EV-ready legislation through provision of templates for use in municipal building codes and zoning ordinances. The State has been presented with the opportunity to support EV-ready construction and has so far failed to act. The Code Adoption subcommittee of the State Codes and Standards Committee recently declined to adopt “EV ready” standards for new residential and commercial construction, citing increased cost and the relatively low number of EVs currently registered in Connecticut. This narrow view fails to adequately take into account the cost of building retrofits to accommodate charging infrastructure, as well as the clear market and industry signals regarding the future trajectory of EV adoption nationwide. The State must take this opportunity to support EV-ready infrastructure and enable Connecticut to lead the way toward an emissions-free transportation sector.

Additionally, local zoning requirements must not act as a barrier to deploying EV infrastructure in residential or commercial structures. Rather, requirements should encourage expansion of EV-ready infrastructure. Parking requirements must take into account the need to support a minimum level of EV charging spaces, as appropriate for the particular building

structure. At a minimum DEEP should support building codes that mandate 10 percent of spaces be pre-wired for EV charging. Relating to ADA requirements, the Codes committee need not establish new ADA-compliant requirements; rather, the committee needs only to clarify how EV charging stations should comply with existing ADA requirements.

We support DEEP's recommendation to consolidate permitting for Level 2 EVSE and DCFC installations. Such permitting would be better streamlined if: (1) applications could be submitted electronically and (2) a schedule of permit prices were published.

1. Siting recommendations

While grid impacts should be minimized if and when possible, that should not be the sole determining factor in site selection. Rather, demand and transportation needs should be allowed to shape charging infrastructure location.

1. Public charging infrastructure ownership recommendations

The EV Coalition supports DEEP's recommendation that EDCs be permitted to rate-base make-ready investments in EV supply equipment in appropriate contexts. Utilities are uniquely positioned to encourage development of public EV charging infrastructure. DEEP should advocate in the PURA docket a clear expectation that utilities will submit proposals to support deployment of public EV charging stations.

As discussed further in other sections of these comments, carve-outs to ensure a percentage of EV charging stations are located in low-income and underserved communities are well-intentioned, but may not be the best way to support the transportation needs of these communities. The objective should be to improve access to clean, electrified transportation options that also improve public health, rather than proportional deployment of EV charging stations. Investments in low-income and underserved communities must be

tailored to their specific transportation needs. For example, investments in electrified car or ride-sharing services or electrified transit buses may be more beneficial than charging infrastructure for certain communities. Community-specific assessments are necessary to determine the transportation needs of different communities.

Recommendations regarding Consumer Charging Experience, Interoperability, Pricing Transparency, and Future Proofing:

Fostering a positive consumer charging experience is critical to the successful transition to EVs in Connecticut. The challenge in addressing consumer experience through recommendations in the Roadmap is that, because technology is evolving so rapidly in this space, there are risks about being too prescriptive about specific technologies. As noted throughout these comments, the Roadmap should avoid dictating specific technological requirements.

For example, with regard to the proposed requirement that new electrical infrastructure installed at publicly funded DCFC stations be capable of supporting 150 kW charging stations or greater, we appreciate the intent of ensuring future-proofing of investments. However, the Roadmap should be crystal clear that this requirement pertains to the EVSE and not to the chargers themselves. In other words, the “make ready” infrastructure should be future-proofed to support the eventual installation of at least 150kW, but it does not make sense at this time to require actual installation of 150 kW chargers at every DCFC location. With regard to forms of

payment, rather than prescribing specific requirements, it is preferable to defer to the existing statutory requirements on this issue found in C.G.S. § 16-19ggg.

With regard to signage and other standardization of charging experience, regional cooperation in this area is important as the region is relatively small with a large amount of cross-border traffic. Driver confusion regarding the availability of charging stations in neighboring states will negatively impact public perception and consumer adoption of EVs.

Finally, we support the draft Roadmap's recommendation to establish a fine for ICE-ing and authorize state and municipal police and parking enforcement authorities to ticket vehicles in

violation of the law. This is low-hanging fruit and should be adopted. EV charging stations need to be available for EV drivers when needed.

Recommendations regarding Residential and Workplace Charging:

We support adoption of a right-to-charge law prohibiting Multi-Unit Dwellings (MUDs) and condominium associations from restricting lessees or condo owners with designated parking spaces from installing EV charging equipment and associated metering. Relevant stakeholders (e.g., condo owners) should be involved in the legislative process. In other jurisdictions this has led to common-sense approaches that were widely supported.

We further support DEEP's efforts to ensure that the PURA docket evaluates and addresses approaches to manage EV load,

which can take the form of rate design and/or managed charging or demand response programs. Technology needs to be able to support load management.

DEEP should adopt policies to encourage workplace charging in a manner that is technology-neutral and future-proofs these investments. For example, new infrastructure should be able to support L2 charging. The installation cost for L2 wiring is similar to the installation cost of L1 wiring. Thus, there is little value add to wiring only to support L1 charging.

Recommendations regarding Rate Design:

Rate design can be an effective tool for helping to manage EV load, and will be increasingly important as the number of EVs charging in Connecticut continues to increase. We agree with DEEP that if EV-only rates are going to be implemented, it is critical that they not require an additional revenue-grade meter, the cost of which is likely to cancel out the potential savings that an EV owner could accrue through off-peak charging. There are multiple alternatives to second meters to measure the EV component of household load. It can be measured using the embedded metering in smart, networked L2 chargers and advanced household meters that can parse load and identify the EV-specific component. We anticipate that EV load will soon be able to be measured through the communications capabilities of the vehicles themselves. The EV Roadmap should endorse the development of rate designs, including EV-only rate designs, that will help manage EV load. But in light of the rapid technological advances occurring, it is important that the Roadmap not be overly prescriptive about technologies through which EV-only rates can be implemented. The Roadmap should call for the utilities to be taking a proactive role and taking responsibility for managing EV load.

In addition to being a tool for managing EV load, rate design can be critical to removing barriers to deployment of DCFC stations. Demand charges are a major barrier to deployment of public (non-fleet) DCFC. As analyzed by RMI in the context of EVgo's charging station fleet in California,8 particularly at low levels of utilization, demand charges can swamp volumetric charges under traditional commercial demand rates, thereby undercutting the business case for private installation of DCFC. Demand charges can also pose a barrier to fleet charging, including for depot charging of transit buses. Developing rate designs that address this barrier is critical to enabling deployment of electric transit buses in the state.

The concept of Eversource's Rate Rider (which shifts the demand charge into the volumetric charge)9, is well-intentioned, but the current language of the Rate Rider is vague and confusing. There are good examples around the country of modifications to traditional demand charges that send appropriate price signals to station owners such as the recently-approved PG&E throughput-based subscription fee approach.10 Ultimately, we recognize that there is no one-size-fits-all approach to designing alternatives to traditional, demand-based rate structures. Each utility will need to design a rate that works best for its service territory. Regardless of the manner by which utilities address this challenge, their respective solutions should (1) be equitable and available to all DCFC, both existing and new, and (2) address the challenge through a predictable, transparent, and sustainable rate design, rather than a short-term incentive.

Recommendations regarding

Innovation:

We appreciate the enthusiasm in the draft Roadmap for vehicle to grid (V2G) technology.

In the long term, when EVs are widespread, it will be valuable to be able to harness the stored energy in the batteries of parked vehicles. However, we do not believe that V2G should be identified as a high priority in the final Roadmap. Rather, it is critical in the near term to develop strategies for effective unidirectional smart charging (V1G) management of new EV load.

Recommendations regarding Leveraging Incentives to Promote Equitable, Affordable EV Adoption—CHEAPR Program:

The CHEAPR program has the potential to greatly boost EV adoption. Indeed, studies and modeling show that rebates that reduce the up-front purchase price of vehicles are a strong driver of EV adoption.11 Based on modeling that Synapse Energy Economics conducted for the Sierra Club in New York, it may be valuable to increase the sizing of the CHEAPR rebate for battery electric vehicles.12 Ultimately, the incentives should be sized such that the CHEAPR incentive, in addition to other federal and state incentives, is projected to put Connecticut on track to meet its transportation sector GHG commitments.

Additionally, the CHEAPR program will need to be scaled up to achieve 500,000 ZEVs on Connecticut roads by 2030 in order for the state to meet its climate goals.13 To that end, CHEAPR will need a large and sustainable source of funding. DEEP

should explore the possibility of utilizing the Transportation and Climate Initiative (TCI) as a funding source for the CHEAPR program.

DEEP should also evaluate the merits of a low-income adder to the rebate in conjunction with other potential strategies to promote access to EVs for low-income and underserved communities, and extending the low-income rebate to the purchase of used vehicles. One alternative that warrants further consideration is a “cash for clunkers” program similar to what California and British Columbia have developed.

Finally, the EV Roadmap should recommend elimination of the current prohibition on direct sales of EVs, which is stifling sales of EVs in the state. The models that comprise the majority of national EV sales are not being sold in Connecticut. At the same time, the Roadmap should recommend additional incentives for existing auto dealers to increase their sales of EVs. More outreach to dealers regarding the existing CHEAPR dealer incentive is needed, given low levels of awareness by dealers, and additional incentives should be explored, such as: state reimbursement of the percentage of dealership local property tax equal to the percentage of EVs sold by the dealer each year, to a cap of 50%; state waiver of state income tax on all staff salaries based on percentage of EVs sold, to a cap of 50%; reimbursement of 100% of EV charging infrastructure and charging electricity costs at all CT dealer locations; free training for all CT dealers in EV sales using the PlugStarDealer.com program or a similar program; and/or higher CHEAPR rebates for all dealer cars used as service loaners and company cars.

Recommendations regarding

Education and Outreach:

We support a coordinated approach to education and outreach among state actors and support a role for utilities and OEMs.

Connecticut should continue to support and participate in the regional Drive Change Drive Electric (DCDE) campaign and the Destination Electric Program to build upon and increase consumer awareness in the state and the region. We support the partnership framework among automobile manufacturers and state governments of the DCDE Campaign. While the campaign provides good web-based resources for learning about electric vehicles, there may be additional opportunities for proactive outreach and promotion. Such opportunities include cross-linking with other relevant state (such as DMV) and municipal (particularly for the Destination Electric program) websites.

We agree that OEMs should (and must) be active participants in advertising and marketing EVs in Connecticut, leveraging their years of experience in promoting conventional vehicles. Among the roles OEMs can play:

- Creation of informational and marketing materials for dealerships. While we assume that OEMs currently do this to some extent, we recommend an expansion of these efforts targeted to EV
- Providing additional dealer incentive for EV
- Providing supplemental consumer rebates for EV Purchases. For example, Nissan has partnered with the CT Green Bank to provide an additional manufacturer incentive of between $2,500 and $5,000 for the purchase of a Nissan Leaf.
- Providing well-promoted community “Ride and Drive” events, in partnership with the state, municipalities, and local businesses.

As noted above, we strongly support the recommendation to

conduct focused outreach in underserved communities to inform the development of integrated approaches for deploying electrified transportation services strategically and addressing barriers to EV ownership by low- income households. We emphasize that the deployment of electrified transportation services should be informed by community priorities with respect to the type of services desired, whether that is increased access to light-duty EVs to replace older, unreliable personal transportation or the deployment of more electric buses and other clean transit options, with increased convenience and affordability.

Recommendations regarding Funding Mechanisms to Support Sustainable Incentive and EV Infrastructure Programs—VW EVSE:

VW EVSE expenditures should be coordinated with the utility programs that arise from the PURA ZEV docket.14 DEEP should focus on ensuring that key market segments, such as MUD L2, public transit corridor DCFC, and in-town DCFC, are being addressed.

A portion of the VW funding should be earmarked to support access to electrified transportation for communities that bear an outsize share of transportation emissions. DEEP should conduct outreach into these communities to better understand transportation needs and use VW EVSE funds to support charging infrastructure for transportation programs that will meet these needs (for example, communities that could be better served by car or rideshare programs). This is preferable to simply deploying a percentage of stations in overburdened

communities.

Respectfully submitted,

The Connecticut Electric Vehicle Coalition

- Acadia Center*
- Connecticut Fund for the Environment*†
- Connecticut Green Buildings Council
- Connecticut Nurses Association
- Connecticut Roundtable on Climate and Jobs*
- Connecticut Citizen Action Group
- ConnPIRG
- Conservation Law Foundation
- ChargePoint*
- Chispa-CT*
- Clean Water Action*
- CT League of Conservation Voters
- CT 350
- Drive Electric Cars New England
- Eastern CT Green Action
- Electric Vehicle Club of Connecticut*
- Energy Solutions, LLC
- Environment Connecticut*
- Greater New Haven Clean Cities Coalition,
- Hamden Land Conservation Trust
- Hartford Climate Stewardship Council
- International Brotherhood of Electrical Workers*
- Interreligious Eco-Justice Network
- New Haven Climate Movement
- Northeast Clean Energy Council
- People’s Action for Clean Energy
- Proton OnSite
- Plug In America*

- RENEW Northeast
- Sierra Club*†
- Solar Connecticut,
- Tesla,
- Union of Concerned Scientists

* Connecticut EV Coalition Steering Committee Membership

Footnotes:

1 CT EV Coalition Feb. 21, 2019 Cmts at 2.

2 Draft Roadmap at 20.

3 Governor's Council on Climate Change, Building a Low Carbon Future for Connecticut 29-30 (December 18, 2018).

4 An Act Concerning the State Budget for the Biennium Ending June 20, 2021, and Making Appropriations Therefor, and Provisions Related to Revenue and Other Items to Implement the State Budget.

5 *See* NYSERDA, New York Truck Voucher Incentive Program, available at https://www.nyserda.ny.gov/All-Programs/Programs/Truck-Voucher-Program.

6 *See* Governor's Council on Climate Change, Building a Low Carbon Future for Connecticut (December 18, 2018).

7 Energy Solutions, Plug-In Electric Vehicle Infrastructure Cost Analysis Report for CALGreen Nonresidential Update (September 16, 2019), available at: https://caletc.com/energy-solutions-report-finds-that-increasing-the- number-of-electric-vehicle-capable-parking-spaces-at-new-buildings-and-adding-ev-capable-parking-spaces-to-existing-buildings-when-undergoing-certain/.

8 Rocky Mountain Inst., EVgo Fleet and Tariff Analysis Phase 1: California (Apr. 2017).

9 Available at https://www.eversource.com/content/docs/default-source/rates-tariffs/ev-rate- rider.pdf?sfvrsn=e44ca62_0.

10 *See* PG&E, PG&E Proposes to Establish New Commercial Electric Vehicle Rate Class (Nov. 5, 2018), available at https://www.pge.com/en/about/newsroom/newsdetails/index.page?title=20181105_pge_proposes_to_establish_new

_commercial_electric_vehicle_rate_class; PG&E, PG&E's Commercial Electric Vehicle Rate (Nov. 20, 2018), available at https://caltransit.org/cta/assets/File/Webinar%20Elements/WEBINAR-PGE%20Rate%20Design%2011- 20-18.pdf.

11 Studies have found a significant increase in EV sales with the implementation of rebates among low- and moderate-income households. Scott Hardman, *The Effectiveness of Financial Purchase Incentives for Battery Electric V9ehicles*, 80 Renewable and Sustainable Energy Reviews 1110 (2017), https://phev.ucdavis.edu/wp- content/uploads/2017/09/purchase-incentives-literature-review.pdf.

12 Synapse Energy Economics, Inc., Transforming Transportation in New York: Roadmaps to a Transportation Climate Target for 2035 (September 2019).

13 *See* Governor's Council on Climate Change, Building a Low Carbon Future for Connecticut 28 (December 18, 2018).

14 PURA Docket No. 17-12-03RE04.

† To whom correspondence should be directed. Josh Berman, Sierra Club. Email Josh.Berman@sierraclub.org or phone (202) 650-6062. Charles Rothenberger, Connecticut Fund for the Environment. Email crothenberger@ctenvironment.org or phone (203) 787-0646, x122.

EV Showcase at 2019 STEAMFest

The EV Club staged a small showcase at a well-attended event called STEAMFest, presented by Sustainne with (and at) Housatonic Community College in Bridgeport. This event covered numerous topics related to energy efficiency, zero-waste, raising organic food, ecology, as well as speakers who gave advice to students about environmentally-related careers (of which there is a wide variety).

The time of year is past, for the most part, for outdoor showcases, but we braved the somewhat cold November weather and had a great response. We find that there is still a pretty low baseline level among the general public about what EVs are about and what incentives may be available. It reminds us that the commitment to doing these will be worth it over time.