Comments Received on CHEAPR Eligibility and Program Design

This document is a compilation of all comments received by DEEP during the comment period which closed on August 12, 2020 regarding CHEAPR Eligibility and Program Design.

Usage: Use the bookmark bar on the left side of the window to navigate to each comment.

Comments Received

Comments Received after Close of Comment Period

The listed commenters submitted identical comments as exemplified by Marc Favreau's submission below.

Marc Favreau
Linda Vannoni
Nancy Iddings
Melissa Schlag
Zeno Chicarilli
Bryan Anderson
Mary Kranzlin
D’Arcy Jeffery
Joshua Angelus
Shirly McCarthy
Penelope Howell Heller
Carole Osborn
Michele Cohen
Robert Langdon
Donna Grossman
Amy Ewing
Mary Greenly
David Ryan
Kimber Degling
Susan Fox
Tracey Berry
Diana Blair
Wayne Pipke
Brian Coss
Neil Chaudhary
James Fillman
Lisa Hesselgrave
Kathleen Gould-Mitchell
Donna White
Michael Uhl
Judith Nugent
Matt Olson
Kitty Clemens
Trudy Dujardin
Katherine Lange
Myra Aronow
Paul Wessel
Patrick Ingellis
Gregor Ames
Jim Hart
Storm Kuchta
Sharron Laponte
John Picard
Joseph Poland
Katherine Kohrman
Whitney Krueger
Anita Lopker
Maria Ateaga
Pete Govert
Ellen Vitolo
Royal Graves
Sarah Feola
Chris Schweitzer
Pamela Perrone
Lindsay Suter
Susan Clemens
Ned Farman
Emily Bradley
Russell Heller
Laura Janoski
Diane Lentakis
Alison Zyla
Adelheid Koepfer
Alison Cunningham

From: mfavreau@everyactioncustom.com on behalf of Marc Favreau
To: DEEP MobileSources
Subject: EVs should be for everyone—help make that happen
Date: Wednesday, August 12, 2020 12:56:21 PM

Dear DEEP CHEAPR Board,

I firmly believe that electric vehicles (EVs) are the future. As such, I am offering my comments on the CHEAPR program.

First, and most importantly, I ask that you restore the rebate levels and price cap that were reduced in October 2019. This will improve the effectiveness of the program and make it competitive with our neighboring states. I also support the proposed inclusion of a higher rebate level for low and moderate income (LMI) applicants.

I also offer the following comments in response to the specific questions for which feedback is being solicited:

(1)Whether incentives for used EVs should be limited to low and moderate income applicants:

I support rebates for used EVs, and think that limiting the used EV rebates to LMI applicants, who need the assistance most, has merit as a means of ensuring broader access to electric vehicles.

(2)DEEP's statutory interpretation that electric bicycles are not eligible for rebates under the CHEAPR program:

I agree with DEEP's analysis that electric bicycles (e-bikes) are not eligible for CHEAPR rebates under the current statutory definitions. I also believe that e-bikes fall outside of the scope of the intended purpose of the CHEAPR program and they should not be considered for inclusion in the future, as it will divert limited funding away from the program's climate and EV goals of replacing fossil fuel vehicles with cleaner alternatives.

(3)The incentive structure and rebate levels for the program:

Two of the positive changes being made (rebates for used EVs and supplemental LMI rebates) will broaden the base of customers who might purchase an EV rather than a polluting conventional vehicle. This is important to achieving Connecticut's minimum deployment targets and changing the public perception of electric vehicles as appealing only to affluent purchasers. EVs are for everyone.
However, I am concerned about the proposal to maintain the base rebate levels at the lower rates adopted last fall. These lower incentive levels have resulted in a decline in EV purchases and are contrary to Connecticut's commitment to wide-scale EV adoption.

I urge the CHEAPR Board to restore Connecticut's EV rebates to a level that has proven to be effective and that is competitive with our neighboring states. To do this, we recommend that you consider adopting the following base EV Rebate levels:

All-Battery EV (with a range of at least 200 miles): $2,500
All-Battery EV (with a range less than 200 miles): $1,500
Plug-In Hybrid EVs (these are nearly pointless, but offer some benefit) (electric range of at least 25 miles): $500

I also urge you to restore the price cap for eligible vehicles to $50,000. The price cap was lowered from $50,000 to $42,000 in October 2019, removing a number of EV models from eligibility. Restoring the higher price cap would align our incentive program with Massachusetts', while also restoring a number of vehicles to eligibility.

Thank you for the opportunity to comment and your commitment to our climate.

Sincerely,
Mr. Marc Favreau
4100 Park Ave Apt 14 Bridgeport, CT 06604-1035

mfavreau@optonline.net

From: Andrew Arzamarski
To: DEEP MobileSources
Subject: Cheaper
Date: Thursday, July 30, 2020 4:12:30 PM

Hello,

Regarding the items for public comment's three questions.

Question one, about limiting incentives for used EV's to LMI applicants. I am very much for incentives on used EV, but against the LMI limits. I don't think it should be limited to LMI's or if there is a limit, make the limits higher. The limits could be set as high as the levels of the CARES Act that has a limit of $75,000 for an individual or $150,000 for a family in order to qualify. This will allow more people an ability to take advantage of the incentive, which is ultimately what the point of CHEAPER is all about: helping people afford a more expensive EV which is better for the environment.

Question two, about FCEVs. FCEVs rebate levels are good. The only problem is they are just not as common as EVs, both in the availability of vehicles and the fueling stations, especially in CT. This makes the need to keep them on the list lower, but in 5 years, they may be more common than EVs, so they should stay on the rebate list, with a similar price rebate.

Question three, about electric bikes. Electric bikes should be allowed on the list, but at a much lower level than EVs simply because of their price. The rebate for EVs could be seen as roughly 6-8%, an EV will typically cost $30-40,000 with a $5,000 rebate. The rebate for electric bikes should be the same percent. This would give a rebate of about $150. This will again help promote the whole point of the CHEAPER: helping people afford a more expensive electric vehicles (or other transportation like bikes) which is better for the environment.

As a side note, I am very interested in the CHEAPER program and I hope that my next vehicle can be an EV. I haven't been about to afford one as of now because the rebates don't apply to used EVs. One of the difficult things to get over is the price and things like CHEAPER can be a major help to me, and other people like me, who want an EV, but have difficulty affording one.

From:	Julia Rege
To:	DEEP MobileSources
Cc:	Farrell, Paul; Wayne Weikel
Subject:	CHEAPR Program Proposal Feedback
Date:	Wednesday, August 12, 2020 2:51:30 PM
Attachments:	image002.png Ext. Comm. - Comments - 2020 - 08-12 CT CHEAPR.pdf

Please find attached comments from the Alliance for Automotive Innovation regarding the CHEAPR Proposal.

Best, Julia

Julia M. Rege
Vice President, Energy & Environment
O: 202.326.5559
Alliance for Automotive Innovation
1050 K Street, NW - Suite 650, Washington, DC 20001
autosinnovate.org - twitter - linkedin

August 12, 2020

Submitted Electronically at DEEP.mobilesources@ct.gov

The CHEAPR Board
Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

To: The CHEAPR Board

The Alliance for Automotive Innovation[1] (Auto Innovators) appreciates the opportunity to provide feedback on the "CHEAPR Proposal" and accompanying background documents and materials.[2] Since the inception of its point-of-purchase rebate in 2015, Connecticut's ongoing commitment to maintaining and refunding CHEAPR has been noteworthy and led to increased sales of electric vehicles (EVs) in the state. Now, the availability of $3 million in funding annually through 2025 is a strong sign of how the state and the Governor are standing behind their goals to increase consumer interest, awareness, and purchases of EVs.

While much of the Department of Energy and Environmental Protection's (DEEP) current activity to evaluate the CHEAPR program is driven by Public Act 19-1172, which establishes funding along with critical elements to develop as part of the CHEAPR program, the discussion and questions about program design that are being evaluated by the Board could have broader implications than just three questions raised for public comment. Our automakers remain committed to a transition to electrification, but to do so, smart and effective public policies must be in place to guide progress. Thus, Auto Innovators would be pleased to join the CHEAPR Board to provide a real-time viewpoint of automakers as CHEAPR proposals are developed.

The CHEAPR proposal contains three elements for public comments: limiting used vehicle incentives for LMI applicants, the rebate level for fuel cell electric vehicles (FCEVs), and the eligibility of electric bicycles. Operating under the assumption that the goal of these considerations is to advance electrification in the state and optimize availability of incentives for as many customers as possible, Auto Innovators provides the following feedback, on behalf of our automakers and based on our long-standing experience with EV rebate programs. The data is clear: state-based incentives can be persuasive for residents considering purchasing an EV, and as past experiences show, can be detrimental when they go away, whether in entirety, as funding is depleted, or as vehicles become

[1] Formed in 2020, the Alliance for Automotive Innovation is the singular, authoritative and respected voice of the automotive industry. Focused on creating a safe and transformative path for sustainable industry growth, the Alliance for Automotive Innovation represents the manufacturers producing nearly 99 percent of cars and light trucks sold in the U.S. The organization, a combination of the Association of Global Automakers and the Alliance of Automobile Manufacturers, is directly involved in regulatory and policy matters impacting the light-duty vehicle market across the country. Members include motor vehicle manufacturers, original equipment suppliers, technology and other automotive-related companies and trade associations. The Alliance for Automotive Innovation is headquartered in Washington, DC, with offices in Detroit, MI and Sacramento, CA. For more information, visit our website http://www.autosinnovate.org.

[2] Connecticut Department of Energy and Environmental Protection, "CHEAPR Proposal." (29 July 2020). https://portal.ct.gov/DEEP/Air/Mobile-Sources/CHEAPR/CHEAPR---Resources.

ineligible. Any decisions related to CHEAPR must be fully and carefully assessed to understand any impacts.

Limiting Used Vehicle Rebates for LMI Applicants

The auto market is complex with many factors influencing individual purchase decisions, and the ability to create and support a strong used vehicle market can be as important and necessary as the new vehicle market. Our automakers represent the new vehicle market – new vehicle sales ultimately lead to the used car market, and today, the overall used car market is about twice the size of the new car market.[3] Customers' reasons for buying a new car versus a used car may vary significantly by person, but the customer's purchasing power greatly factors into that decision. As new cars prices have increased, reaching an average of $38,948 in December 2019, many customers may seek a used car instead.[4] In addition, on average, electric cars cost about $12,000 more to produce than a comparable gasoline vehicle.[5]

Limiting used vehicle rebates to specified applicants is required by the statute. While the statute provides DEEP and the Board with modifying text on limiting availability of the used vehicle rebates based on "maximum income eligibility," there is nothing in the text to suggest that the maximum income eligibility must be LMI applicants only. Further, the definition of LMI applicants does not appear to be readily available in the public comment documents, which may be more critical to the decision process than limitation to LMI only. For instance, there may be a family that falls above the income level that is considering a third car for a driving teenager, and would not consider or could not afford a new car for this teen. A used EV may be a perfect car in this situation, but the family could be dissuaded by the inability to obtain a rebate at this juncture. While ultimately the Board has the ability to determine a "maximum income eligibility," Auto Innovators encourages a broader interpretation of that maximum level to help leverage, support, and grow a used EV market in the state. This level could be further refined in the future, as allowed by the statute and under Board approval, if there is inadequate funding available for LMI applicants seeking to purchase an EV.

Finally, these caps can be unnecessarily limiting as we strive to increase customer demand for all EVs across the state – again, a critical component to increasing the number of used EVs in the market as well. A large percentage of EVs are leased, an increasingly preferred method for consumers to access new technology. Many of those vehicles would become ensnarled in an MSRP cap, while the true cost to the purchaser through the term of the contract (e.g., total of all payments) would roughly be equivalent to 50% of the MSRP. Further, this arbitrary cap would eliminate many of the expected new EVs in the coming years, including pickups and other more capable vehicles, to the extent they exceed the MSRP cap. To meet the state's longer-term climate and electrification goals, all EVs, regardless of MSRP, must succeed. Discouraging the purchase of EVs, based on MSRP and particularly at this

[3] Ellencweig, Ben, et. al., "Used cars, new platforms: Accelerating sales in a digitally disrupted market." *McKinsey & Company* (6 June 2019). https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/used-cars-new-platforms-accelerating-sales-in-a-digitally-disrupted-market#.

[4] Kelly Blue Book, "Average New-Vehicle Prices Up Nearly 2% Year-Over-Year in December 2019, According to Kelley Blue Book, Dealer Discounts Reach Highest Level in More Than 10 Years, Helps Lower Average Days in Inventory." *Press Release* (3 January 2020). https://mediaroom.kbb.com/2020-01-03-Average-New-Vehicle-Prices-Up-Nearly-2-Year-Over-Year-in-December-2019-According-to-Kelley-Blue-Book#:~:text=3%2C%202020%20%2FPRNewswire%2F%20%2D%2D,0.2%25)%20from%20last%20month.

[5] Baik, Yeon, et. al., "Making electric vehicles profitable." *McKinsey & Company* (8 March 2019). https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/making-electric-vehicles-profitable.

early stage of market adoption, is not consistent with these goals and could be problematic for developing a robust used EV market.

Fuel Cell Vehicle Rebate Level

Connecticut remains a leader in promoting and supporting FCEVs outside of California, with several grant proposals for hydrogen station development and one of the only inclusions of FCEVs in its rebate program. FCEVs continue to be available primarily in California, due to a lack of refueling infrastructure outside of that state. Yet, with this inclusion in the CHEAPR program, Connecticut is proving its leadership and desire to have a robust, all-inclusive EV market with the widest range of EV technologies available to its citizens.

While we appreciate consideration of the FCEV rebate level, the reality is that these vehicles remain more costly than battery electric vehicles.[6] A higher rebate level is warranted. Additionally, FCEVs are not currently available in Connecticut, so inclusion of the higher rebate level will likely be appropriate for continuing to grow interest in FCEVs, as well as state support for infrastructure development, without any impact on overall CHEAPR funding. Auto Innovators recommends maintaining this rebate level as is, and at the time FCEVs become available in Connecticut, reassess this rebate level one year after FCEVs sales have begun.

Electric Bicycle Eligibility

Auto Innovators agrees with DEEP's statutory review that electric bicycles are not eligible under the CHEAPR program. While electric bicycles likely will play an important role in providing Connecticut's citizens with another lower cost, all-electric commuting and recreational operation, bicycles cost considerably less than vehicles, are not designed to the same level of environmental, safety, and durability requirements as vehicles, have uses that are treated differently than cars under road requirements, and in no way meet or qualify as a vehicle under Connecticut's statute.

Other

One other important design consideration for the CHEAPR program is whether Connecticut citizens, who purchase an EV outside of the state, have the ability to apply for a rebate after their purchase. Given the size of Connecticut's vehicle market and proximity to other states, the likelihood of cross-border sales is highly likely, especially if a citizen has a preferred dealer or selects to visit a location with more EV options on the lot. This ability to apply for a CHEAPR rebate after purchase, for a qualifying EV purchase or lease, should be allowed, provided the customer can provide proof of residence in Connecticut. It supports increased customer choice and purchasing flexibility and may lead to additional EV registrations in Connecticut. Given that this provision is allowed for certain vehicles that are not allowed to be sold in the state, the same provision should be allotted to any citizen for any qualifying EV.[7]

[6] Background materials on the CHEAPR program indicate a higher MSRP level for FCEVs, but the documents for public consideration appear to apply a blanket MSRP of $42,000. If this level is applicable to FCEVs, then the MSRP alone has likely disqualified any FCEVs from the rebate, and any discussion regarding the rebate level is null. Materials should be clarified that the MSRP cap for FCEVs is set at $60,000.

[7] Connecticut Department of Energy and Environmental Protection, "Program Guidelines for Consumers." *CHEAPR Program*, page 2, Footnote #4, page: https://portal.ct.gov/-/media/DEEP/air/mobile/CHEAPR/CHEAPRConsumerGuidelinespdf.pdf.

Thank you for this opportunity to provide input in the CHEAPR program. Auto Innovators would be pleased to provide additional information or discussion with the Board.

Sincerely,

Julia M. Rege
Vice President, Energy and Environment

From: Barry Kresch
To: DEEP MobileSources
Subject: Comments on Proposed Changes to CHEAPR
Date: Friday, July 31, 2020 11:36:27 AM

Barry Kresch
81 Partrick Road, Westport, CT.
Barry.Kresch@gmail.com
203-521-6731

First, I disagree with your framing of the questions to exclude comments on the base incentive levels. Given the dramatic reduction in rebates awarded since October, the amount of unspent funds, the fact that the used and LMI supplemental incentives won't be online until Q1, 2021, I feel there is a strong case to raise the MSRP cap back to $50K and to raise the incentive levels back to where they were. Of course, these two components don't have to move in tandem. It is my feeling that the MSRP cap is the bigger factor in the drop-off.

I support your LMI proposals for new and used EVs.

With respect to fuel-cell, this is a more complicated question. Consumers can't buy them here. There is no hydrogen refueling infrastructure. I didn't like the travel loophole when it existed for EVs and I don't like the fact that an FCEV sold in CA doesn't improve air quality in CT. I also think the size of the incentive is too high, especially since the FCEV range is no longer that different than the longer-range BEVs. Also, no LMI individual is going to by an FCEV any time soon. Maybe in 5 years if the technology gets some traction. Finally, it serves to create a misleading headline. An incentive of up to $5000 is true only in a theoretical sense. For these reasons, I advocate suspending FCEV incentives, to be revisited at a future date.

I support an e-bike rebate. I take your point about the language. I think e-bikes have particular value to our urban centers and for LMI populations. My suggestion is to create a carve-out for a pilot for a spend of up to $150K this year, with a $500 incentive level and an LMI limitation. Use it to collect data on who is taking the rebates, what their car ownership status is, whether car ownership status or usage has changed after acquiring an e-bike, and what they do with the e-bike.

The findings published in your EV Roadmap were quite negative on the value of the dealer incentive. Why do you think continuing it is a good idea?

The listed commenters submitted identical comments as exemplified by Bill Kirwin's submission below.

Bill Kirwin
Marilyn Truglio Kirwin

From: Bill Kirwin
To: DEEP MobileSources
Subject: EV/Hybrid Rebates
Date: Thursday, August 6, 2020 1:24:43 PM

I'm writing in support of the proposed increased rebates for these vehicles. In particular, I'm considering purchasing a plug-in hybrid vehicle. The current $500 incentive isn't enough to make me want to take that jump since the list price is substantially more. Increasing this to at least $1500 will cause me to think more seriously about this purchase and trade-in my gas-powered vehicle. However, there is a $13,000 MSRP difference between the gas and plug-in hybrid MSRP on the vehicle I'm considering. Although I'll be using less gas, the tradeoff is still significant. I think we need to do even more to encourage people to reduce their carbon footprint at the state AND federal level. Even using the fully burdened carbon rate of $8.89/gallon this does not pay off over 3 years at 20K mile per year.

Bill Kirwin
The TCO Alliance
International Institute of IT Economics
Calendar:https://calendly.com/bkirwin
203.215.7717
iiievalue.com

From:	Joel Rinebold
To:	DEEP MobileSources
Cc:	Joel Rinebold; Szymanski, Steve (sszymanski@nelhydrogen.com); David Giordano; Bryan Garcia; William Smith (wsmith@infinityfuel.com); Phelps, Derek; Anthony Anderson; Trent Molter; BANT, Roy; Connor Dolan
Subject:	Comments on CHEAPR from CHFCC
Date:	Wednesday, August 12, 2020 2:37:30 PM
Attachments:	CHFCC Comment to DEEP CHEAPR Program F 8-12-20 .docx

Please find comments on the CHEAPR Program from the Connecticut Hydrogen Fuel Cell Coalition.

Please contact me if you require additional information.
Thank you.
Joel

Joel M. Rinebold
Director of Energy
Connecticut Center for Advanced Technology, Inc.
222 Pitkin Street, Suite 101
East Hartford, CT 06108
Phone: (860) 291-8832
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Web: www.chfcc.org

Public comment on the Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) program

Joel M. Rinebold
Connecticut Hydrogen Fuel Cell Coalition
August 12, 2020

The Connecticut Hydrogen Fuel Cell Coalition administered by the Connecticut Center for Advanced Technology compliments DEEP on its continued support for zero emission vehicles and refueling/recharging. This support is justified to reduce carbon and ambient air pollutants to protect the health of Connecticut residents. The proof of potential program effectiveness may be somewhat compared to the recent reduction of automotive traffic due to COVID 19. This unexpected reduction of traffic resulted in a noticeable and welcomed reduction of air pollutants.

> Government policies during the COVID-19 pandemic have drastically altered patterns of energy demand around the world. Many international borders were closed and populations were confined to their homes, which reduced transport and changed consumption patterns. Here we compile government policies and activity data to estimate the decrease in CO_2 emissions during forced confinements. Daily global CO_2 emissions decreased by –17% (–11 to –25% for $\pm 1\sigma$) by early April 2020 compared with the mean 2019 levels, just under half from changes in surface transport. At their peak, emissions in individual countries decreased by –26% on average. The impact on 2020 annual emissions depends on the duration of the confinement, with a low estimate of –4% (–2 to –7%) if prepandemic conditions return by mid-June, and a high estimate of –7% (–3 to –13%) if some restrictions remain worldwide until the end of 2020. Government actions and economic incentives postcrisis will likely influence the global CO_2 emissions path for decades. [1]

Such reductions may be more pronounced in local areas with high dependency on internal combustion vehicles, such as Connecticut.

In addition, alternative fueled vehicles provide fuel diversity, transportation reliability, and to the extent that businesses and industry in Connecticut can manufacturer clean energy technology, there will be an added benefit for revenue and job creation. Specifically, hydrogen and fuel cell technology provides significant and unique opportunities for job creation and economic development in Connecticut that does not exist for other technologies. Realizing approximately $601 M in annual revenue and investment or approximately 43 percent of the Northeast region's total impact, Connecticut's hydrogen and fuel cell industry supply chain is estimated to contribute over $31 M in state and local tax revenue annually. If newer/emerging hydrogen and fuel cell technology were to gain momentum, the number of companies and employment for the industry could grow substantially. Hydrogen and fuel cell technology provides an opportunity for Connecticut to more fully utilize its renewable energy industry using hydrogen and fuel cells for transportation. Such use could maintain Connecticut's role as an economic showcase for regionally manufactured energy technology while reducing NOx and CO_2 emissions.

[1] Le Quéré, Corinne, et al. Temporary reduction in daily global CO_2 emissions during the COVID-19 forced confinement. Climate Change. May 2020.

Consequently, the CHFCC suggests maintaining the program incentive levels for Fuel Cell Electric Vehicles (FCEV) and Battery Electric Vehicles (BEV), which includes a $5000 rebate for FCEVs. These Zero Emission Vehicles (ZEV) are not competitive, moreover they serve different markets with FCEV being favored for longer distance travel and BEV potentially being favored for more urban, short range transportation.

Incentive rebates and grants for development and fueling should be maintained for:

- FCEVs
- BEVs
- Public Refueling
- Public Recharging
- Time of Day Energy Rates for Favorable Hydrogen Production and Battery Charging

Schedules for deployment should be set, maintained, and revised as needed to provide a measured approach where costs and values can be measured with results. Because FCEVs are typically leased, the establishment of a MSRP cap for vehicle eligibility is strongly opposed for FCEVs at this time. A MSRP cap of $42,000 would be confusing to administer given the leasing arrangement for the FCEVs and potentially eliminate deployment of FCEVs in Connecticut, limit opportunities for customer choice, and impair the clean energy industry in Connecticut that manufactures hydrogen technology components. Indeed, California with a ZEV program similar to the CT CHEAPR Program, recognizes the cost of the FCEVs and provides an exemption to a MSRP eligibility cap to encourage deployment of FCEVs and to avoid undermining the intent of its ZEV Program.

For hydrogen fuel cell technology:

Zero emission FCEVs could replace existing conventional vehicles in Connecticut, starting with 548 light duty FCEVs and 43 fuel cell buses (FCEB) for a total of 591 vehicles, which could reduce annual carbon dioxide ($CO_{2)}$ emissions by approximately 6,400 metric tons and NOx emissions by 2.2 metric tons. These vehicles would produce an immediate market potential to operate six to seven hydrogen refueling stations in the state. Fuel cells could also provide a zero-emission alternative for forklifts and other material handling equipment at warehouse facilities, airports, and other emission constrained areas. At $65,000 for each FCEV the market potential for the FCEVs could be $36 million (M). At $1 M to $2 M per FCEB, the market potential for the FCEBs could be $43 M to $86 M. At $1 M to $3.26 M per refueling station, the market potential for seven hydrogen refueling stations could be $7 M to $22.8 M.

Recommendations for initial support for vehicles and supporting hydrogen infrastructure to meet economic, environmental, and energy needs includes a schedule starting with an investment of $6.24 M to $14.15 M for infrastructure development and FCEV deployment to support 548 passenger FCEVs and the development of seven hydrogen refueling stations. An additional $8.6 M (20 percent of $43 M) would be needed for the 43 zero emission transit/paratransit buses.

- ***548 Fuel Cell Electric Passenger Vehicles (with $5,000 per vehicle rebate) - $2.74 million.[2]***

[2] The state of Connecticut offers an incentive of $5,000 per FCEV purchased; www.ct.gov/deep/cheapr.

- ***H_2 Infrastructure (seven stations costing $1 M to $3.26 M each) - $3.5 million to $11.41 million (50 percent of capital cost).***
- ***43 Fuel Cell Transit/Paratransit Buses (volume discounted to $1 M each) - $8.6 million (20 percent state cost-share/80 percent federal cost share).*** [3]

Funding for this investment could come from the private sector, federal and state resources[4], and from other sources, potentially including the VW Partial Consent Decree. The VW Partial Consent Decree has allocated approximately $51.6 M to Connecticut for transportation that includes engine repowering, and alternative fueling with hydrogen.[5] Locations for FCEVs and hydrogen refueling would be technically and economically viable in areas of the state where fleets, early market adopters, and hydrogen users co-exist. Support for continued long range deployment consistent with regional deployment is also recommended as follows:

Eight (8) State MOU Projections for FCEVs[6]

	Eight (8) State MOU			Projections for FCEVs per each MOU State[7]							
Deploy-ment Year	**Total Sale Requirements**	**Total ZEV Sales Requirements**	**FCEV[8]**	**CA**	**CT**	**MA**	**NY**	**RI**	**VT**	**OR**	**MD**
1	0	0	0	0	0	0	0	0	0	0	0
2	89,543	33,587	8,397	3,595	548	1,008	1,860	167	91	467	662
3	192,402	72,168	18,042	7,725	1,172	2,167	3,998	360	195	1,003	1,423
4	316,902	118,866	29,717	12,724	1,930	3,569	6,584	592	321	1,652	2,344
5	472,806	177,344	44,336	18,984	2,879	5,325	9,824	883	479	2,465	3,497
6	673,031	252,446	63,112	27,023	4,099	7,580	13,984	1,258	682	3,509	4,977
7	935,407	350,860	87,715	37,558	5,696	10,535	19,435	1,748	948	4,878	6,918
8	1,285,032	482,001	120,500	51,596	7,826	14,472	26,699	2,401	1,302	6,701	9,503
9	1,757,645	659,272	164,818	70,572	10,704	19,795	36,519	3,284	1,781	9,165	12,998
10	2,404,566	901,925	225,481	96,547	14,643	27,081	49,960	4,493	2,436	12,538	17,782
11	**3,300,000[9]**	1,237,792[10] [11]	309,448	132,500	20,096	37,165	68,565	6,166	3,344	17,208	24,404

[3] It is projected that an order for 40 fuel cell buses would reduce the cost to $1 million or less. NREL, Fuel Cell Buses in U.S. Transit Fleets: Current Status 2017; https://www.nrel.gov/docs/fy18osti/70075.pdf.

[4] The Federal Transit Administration's Bus & Bus Facilities Infrastructure Investment Program could provide states and direct recipients 80 percent of the net capital project costs to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities including technological changes or innovations to modify low or no emission vehicles or facilities.

[5] US EPA, Volkswagen Clean Air Act Civil Settlement, https://www.epa.gov/enforcement/volkswagen-clean-air-act-civil-settlement. Center for Climate and Energy Solutions, "Volkswagen Settlement Funding: What Cities Should Know", December 2016; https://www.c2es.org/docUploads/vw-settlement-final.pdf.

[6] Data provided is an averaged projection that does not account for different market drivers and/or incentives/barriers that could substantially change the deployment ratios between state and the delivery of different ZEV/hybrid vehicles.

[7] Derived from applying 4.675 percent to FCEVs. The 4.675 percent was calculated by comparing 8-State MOU data to 2011 registered vehicles by state. These projections for FCEVs assume 25 percent of all ZEVs (FCEVs and BEVs). Some states have fallen short of meeting projection estimates.

[8] This data assumes 25 percent of all ZEVs (FCEVs and BEVs) will be FCEVs.

[9] California Environmental Protection Agency Air Resource Board; http://www.arb.ca.gov/newsrel/newsrelease.php?id=620; October 24, 2013.

[10] Derived from a DOE projection of California ZEV (FCEV and BEV), California transitional ZEV (plug-in hybrids), and California total sales (ZEV and transitional). These projections were applied to the other seven (7) states' 2011 registered vehicle data to estimate potential ZEV vehicle requirements.

[11] DOE EERE; "Fact #771 March 18, 2013 California Zero-Emission Vehicle Mandate is Now in Effect;" https://www.dropbox.com/s/jrl4gbzgw7tsy5p/Fact%20%23771%20%20March%2018%2C%202013%20California%20Zero-Emission%20Vehicle%20Mandate%20is%20Now%20in%20Effec.pdf?dl=0.

Details for this schedule of deployment can be found within the 2020 Connecticut Hydrogen Fuel Cell Development Plan:
https://www.ccat.us/wp-content/uploads/2020/05/2020-CT_H2_Fuel_Cell_Dev_Plan_w-Cover-PDF-1-8-20.pdf:

In conclusion, the CHFCC supports the CHEAPR initiatives and incentives to reduce air emissions and carbon, increase fuel diversity, and encourage the manufacture of clean energy technology in Connecticut. The CHFCC encourages DEEP to maintain this program without reduction of incentives and without a MSRP cap limitation on FCEVs. CHFCC would be pleased to provide additional detail on these comments to DEEP as requested.

Respectfully submitted,

Joel M. Rinebold

Connecticut Hydrogen Fuel Cell Coalition

Board of Directors

Proton OnSite/Nel Hydrogen
Attn: Steve Szymanski, Director of Business Development

Doosan Fuel Cell America
Attn: David Giordano, Government Relations and Business Development

Connecticut Center for Advanced Technology, Inc.
Attn: Joel M. Rinebold, Director of Energy

Connecticut Green Bank
Attn: Bryan Garcia, President & CEO

FuelCell Energy, Inc.
Attn: Derek Phelps, Director - Market /Project Development

Infinity Fuel Cell and Hydrogen, Inc.
Attn: William F. Smith, President

Precision Combustion Inc.,
Attn: Anthony Anderson, Director, Marketing & Business Development

Skyre, Inc.
Attn: Trent Molter, President and CEO

Air Liquide
Attn: Roy Bant, Hydrogen Energy Business Development Manager, Northeast

From: Chris D"Antonio
To: DEEP MobileSources
Subject: Public Comment on CT CHEAPR EV rebate changes
Date: Tuesday, August 11, 2020 1:28:26 PM

CT DEEP and CHEAPR Board Members,

Please consider my public comment on the EV rebate changes proposed in August 2020. For context, I will add that I am a user of the CHEAPR program (as of last September), a proponent of CHEAPR through my work's Green Bank/Nissan Leaf incentive participation, as well as a regular street user and advocate of the most efficient vehicle out there: the bicycle.

1) New EV rebates should be uniformly set for both long range and shorter range EVs. $1500 for the baseline and $2000 for the low-to-moderate income additional rebate. A uniform rebate level would make lower cost EV's more affordable to moderate income households.
We typically look down upon lower range EVs, especially knowing that long range ones like Tesla's exist, but the fact of the matter is that any transition to clean cars is a good one, and now more than ever, it's vitally important to focus on fairness and social justice, rather than gatekeeping what makes a "good (enough)" EV. A 100-mile range may seem skimpy way out in the suburbs to middle-upper class people commuting 30+ miles to their corporate job, but it's actually more than enough for many, if not most people, and is more affordable than a longer range. A passive encouragement to drive less (due to a smaller range) only stands to benefit society. Plus, smaller batteries have a smaller environmental impact which is obviously key to this whole program.

2) The MSRP cap should be increased to $50,000 so that it includes popular EV models, and to be more in line with neighboring states' programs.
This one is less critical but does make sense. If do strongly think that it's vital to have an MSRP cap (huge screw-up federally), but this is only a few thousand dollars more and is not the difference between a normal car and a luxury car, but rather the difference between a standard range and long range variants, while excluding the excess performance/premium models (using Tesla as a specific example).

3) Please reconsider e-bike rebates as a pilot project within CT CHEAPR, or work actively to incorporate that into 2021 legislation. If funding is in question initially, consider collaborating with the Green Bank, who may be willing to support a pilot. Even with EV rebates on used vehicles, an EV car is not financially accessible to low income Connecticut households. An EV rebate program that doesn't engage low-income households is structurally inequitable.
This I think could make a huge difference to improve our streets and society. Despite common misconceptions, bicycles are in fact viable transportation options in all weather conditions, even winters, and they are significantly cheaper to buy and maintain than a car. E-bikes simply take this base bicycle level of viability and increase practicality considerably. Whether you consider lower income households buying a $1000 e-bike to use as a primary means of transportation or even a middle income household buying one instead of a second - or third - car even just to run errands, it's a win-win for all.
Incentivizing E-bikes with even just a couple hundred dollars can make FAR more of a difference in affordability than the current CHEAPR EV incentive - and for much less money too. This is huge for lower income households, and like I said, even for higher income households, you can actually *incentivize* E-bikes, which, frankly, you're not doing too much with EVs. I bought a base Tesla Model 3 and let me tell you, saving an extra roughly 4% from

CHEAPR didn't make me bat an eyelash, but, take for example a $300 e-bike incentive used towards a low/mid-end $1500 e-bike: that's *20%*. More than enough to start catching eyes and actually act as an *incentive*.

Thank you for considering this public comment.

Chris D'Antonio
Enfield, CT

From: Corinne Seibert
To: DEEP MobileSources
Subject: Public Comment on CT CHEAPR EV rebate changes
Date: Monday, August 10, 2020 9:38:16 AM

CT DEEP and CHEAPR Board Members, Here is my public comment on the EV rebate changes proposed in August 2020. Please reconsider e-bike rebates as an immediate pilot project within CT CHEAPR, or work actively to incorporate that into 2021 legislation. Even with EV rebates on used vehicles, an EV car is not financially accessible to low income Connecticut households. An EV rebate program that doesn't engage low-income households is structurally inequitable. In addition to the equity benefit, e-Bikes have an order of magnitude lower life cycle greenhouse gas emission level than an EV car when they are used as motor vehicle replacements. e-Bikes enable longer, predictable, sweat free commutes and could move many Connecticut households to one less car. I am a regular bus commuter, but due to COVID that no longer is viable. The commute is too long for a regular bike to be practical but would be feasible on an e-Bike. I think many could make the same decision. Thank you for considering this public comment. Corinne Seibert, Plainville

From: Craig Peters
To: DEEP MobileSources
Subject: Comments on Proposed CHEAPR Program Changes
Date: Friday, July 31, 2020 11:16:16 AM

NEW VEHICLE PROGRAM

FUEL CELL- $4000.00
EVs>200 e-miles-$1500.00
EVs <200 emiles-$1500.00
Plug-in -$1000.00

MSRP Cap: $45,000.00

USED VEHICLE PROGRAM

FUEL CELL- $3000.00
EVs- $1200.00
Plug-in- $800.00

MSRP Cap: $35,000.00

Having 40 years of Sales Management experience in a CT auto dealership and over 20 years with the U.S Department of Energy;s Clean Cities Program only offering $500.00 as incentive will not persuade a customer to move forward on an expensive advanced technology vehicle.

Craig Peters
Coordinator
Capitol Clean Cities of Connecticut

From: David Beers
To: DEEP MobileSources
Subject: Public Comment on CT CHEAPR EV rebate changes
Date: Monday, August 3, 2020 12:39:28 PM

CT DEEP and CHEAPR Board Members,

Please consider my public comment on the EV rebate changes proposed in August 2020:

1) New EV rebates should be *uniformly set for both long range and shorter range EVs*. $1500 for the baseline and $2000 for the low-to-moderate income additional rebate. A uniform rebate level would make lower cost EV's more affordable to moderate income households.

2) The MSRP cap should be increased to $50,000 so that it includes popular EV models, and to be *more in line with neighboring states' programs*.

3) Please reconsider e-bike rebates as a pilot project within CT CHEAPR, or work actively to incorporate that into 2021 legislation. Even with EV rebates on used vehicles, an EV car is not financially accessible to low income Connecticut households. An EV rebate program that doesn't engage low-income households is structurally inequitable. E-bikes open the world to the biking community, especially during the hot weather we're having now. Some you don't even need to pedal while carrying a trunkful of groceries!

Thank you!

Best,
David Beers
david.beers@outlook.com
West Hartford

From: David Lund
To: DEEP MobileSources
Subject: used BEV incentive
Date: Thursday, July 30, 2020 11:46:36 AM

Hello, I'm writing to support the incentive for purchasing used BEVs in the state of CT. Many used electric vehicles remain far more expensive than their gasoline counterparts, making the proposed incentive an important aspect of sustainability initiatives in CT. I would encourage the state to make this incentive program applicable to incomes higher than the currently discussed LMI threshold, however, because many families in the LMI range will not seriously consider electric vehicles given that: 1) BEVs are >>$2k more expensive than equivalent gas cars, and the 2) low gas prices will persist for the foreseeable future. If the primary goal is to encourage a transition away from fossil fuels, then the focus should be selling as many electric vehicles as possible, rather than the income level of the prospective buyer.

Sincerely,

David Lund
Groton, CT

From: Dawn Henry
To: DEEP MobileSources
Subject: Comments on Proposed CHEAPR Program Changes
Date: Tuesday, August 11, 2020 6:41:17 PM

Hi there. I would like to let you know that I'm a huge enthusiast of electric vehicles and supportive of the CHEAPR program. Of all the things that people can potentially do to help address the climate crisis, choosing an EV instead of a gas car is one that involves a minimum of compromise, cost, or impact on lifestyle. With new models coming out all the time, many of which are superior to gas cars, I'd like to see our state doing whatever it can to help accelerate adoption of EVs. Specifically I'd like to see:

- Increasing vehicle MSRP price cap from $42K to $50K so that the Tesla Model 3 (most popular!) qualifies
- Raising the incentive levels back to where they were prior to October 2019.
- Adding a used EV rebate that works for lower income people.

Thanks for reading this note.

-Dawn

Dawn Henry, Principal
HENRY STRATEGY PARTNERS, LLC
205 Bayberry Lane - Westport, CT 06880
(203) 293-5753
dawn@henrystrategy.com

From: Derek Rand
To: DEEP MobileSources
Subject: CHEAPR Public Comments
Date: Friday, July 31, 2020 10:30:29 AM

Thank you for taking the time to review my responses as it relates to the CHEAPR Program.

Question 1: By setting such a strict limit on Single and Family AGI for used EVs you are ensuring that these funds, meant to help push CT forward on a greener path, will not be used. The program should have significantly higher AGI limits on qualifying for incentives on the purchase of a used EV. By having less strict rules more people will buy a used EV and our roads and environments will be better off for it. Additionally, I have not seen nor heard of any Fuel Cell vehicles on the road and believe the rebates related to fuel cells should be removed and help lift the rebates of cars actually being sold at the moment such as all battery EVs and Plug-in Hybrid EVs. I would also like to mention that the MSRP Cap for new vehicles significantly reduces customers' choices in purchasing an electric vehicle. This cap is having the opposite effect of the entire goal of the CHEAPR program. Please consider raising the MSRP Cap to include vehicles in the marketplace that customers are actually interested in.

Question 2: No, as previously mentioned I have NEVER seen any fuel cell vehicles on the roads of CT. I don't know of any fuel cell vehicles are currently being sold in CT. Lastly, even as part of a CT club for greener cars there is absolutely no interest in fuel cell vehicles. The rebates for these vehicles should be drastically reduced or removed altogether and increase the rebates for vehicles that are actually for sale in this state or the surrounding states.

Question 3: I am in support of providing incentives for people to purchase electric bicycles. This would help reduce emissions for people commuting in a city with short distances but still driving a gas vehicle to get there. Many cities such as Stamford, Norwalk, Bridgeport, New Haven, and Hartford could benefit drastically if electric bicycles were a part of this program. As people get more things and food delivered to them we need to think about how these items are being delivered. If the last mile delivery could be done by bike rather than a gas vehicle that saves a lot of emissions every day.

Please consider making this program more impactful towards the goals that we as state citizens would like.

Thanks,

Derek Rand
Stamford, CT

From: Donald Gonci
To: DEEP MobileSources
Subject: Comments on Proposed CHEAPR Program Changes
Date: Friday, August 7, 2020 10:31:09 AM

Incentives to transition to EV`s is simply the right way to go. Here are some specific comments for your further consideration:

-all electric school buses should be on top of the state`s priority list. The state could help town`s transition to e-buses. Well beyond the main purpose of reduction of greenhouse gases from bus sources, our kids are breathing in much too much particulate materials from the diesel powered buses parked in front of schools (at a minimum, they should not idle at schools).
-lobbying efforts by auto-dealers have blocked the efforts by Tesla to set up at least one sales office in Ct. This effort is regressive and defensive. The state needs to unblock this effort ASAP and find ways to pave the way for Tesla and other e-car companies to expand in our state. Having said that, the state might find ways to help existing dealers transition to the electronic future.
-there are still too many gas guzzlers being made and purchased by state residents; this goes against the trend to reduce the use of fossil fuels. The state should consider a sales tax, as a revenue source, that is progressive, i.e., the greater the guzzler, the greater the tax. Business use of such guzzlers would be exempt in the beginning of the program so that business needs are fulfilled.
-the state needs to make sure that our renewable power generation plans have the capability to power the growing use of e-vehicles, including not just cars, but buses, delivery vans, etc.
-the state should find a way to encourage each and every county, or even every town, to be part of the new energy future. Every area has to do its part, even `rich` towns. Each town should contribute to solar generation, or to wind generation,or to methane capture (rural) or to battery storage. In this way, the grid requirements would be shared and everyone would feel as if they are part of the energy future. Absolutely there should be no gas line to Killingly.
There should be a high-use tax on homeowners that use an inordinate share of electricity. The more electricity used, the bigger the tax (revenue source); if the rich can afford swimming pools, hot tops, whole house AC, they can afford to pay a greater share for electricity.
-ways to guide transition to geo-thermal systems should be considered; some houses are so big, they require more than one oil furnace for heating..an energy tax on such homes would be another revenue source for the state.

There are lots of ways to transition to a more, make sense energy future.

Thank you. Donald Gonci, Old Lyme

From: Connor Dolan
To: DEEP MobileSources
Subject: FCHEA Comments on CHEAPR Program
Date: Wednesday, August 12, 2020 3:54:43 PM
Attachments: FCHEA CHEAPR Comments August 2020.pdf

To whom it may concern,

Please see the attached comments on the CHEAPR program on behalf of the Fuel Cell and Hydrogen Energy Association (FCHEA).

Please let me know if you have any questions.

Regards,

Connor

Connor Dolan
Director of External Affairs
Fuel Cell and Hydrogen Energy Association
cdolan@fchea.org
C – 703 400 3509

Fuel Cell and Hydrogen Energy Association comments on proposed changes to Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) Program

August 12, 2020

The Fuel Cell and Hydrogen Energy Association (FCHEA) appreciates the opportunity to provide comment on Connecticut Department of Energy and Environmental Protection's (DEEP) proposed changes to the Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) program. FCHEA represents leading companies and organizations that are advancing innovative, clean, safe and reliable energy technologies. FCHEA's membership includes the full global supply chain of the fuel cell and hydrogen technology industry.

FCHEA strongly supports the proposed rebate levels for fuel cell vehicles (FCVs) under the CHEAPR program. Given that FCVs are currently in a much earlier stage of adoption compared to battery electric vehicles (BEVs) today, it is appropriate that a higher rebate amount is provided for these vehicles to help kickstart FCV introduction in Connecticut.

However, based on the proposed manufacturer's suggested retail price (MSRP) cap of $42,000, under this arrangement all FCV purchasers would be prevented from actually utilizing this credit, as all commercially available FCVs currently exceed that price. Therefore, **FCHEA urges Connecticut to exempt FCVs from this MSRP cap in order to support the adoption of FCVs in the state.** If an MSRP cap is required for the program, then we support maintaining the previous cap amount of $60,000 for FCVs.

There is precedent for FCVs to be given an exemption on the MSRP cap for vehicle rebates. In California, the only state where FCVs are currently being sold or leased to consumers today, the California Air Resources Board (CARB) has its own vehicle rebate program called the Clean Vehicle Rebate Project (CVRP). The CVRP has a MSRP cap of $60,000 for vehicle eligibility, however, an exemption is included for FCVs given their current higher cost to support adoption.[1] In addition, in earlier years of the CVRP when BEVs were sold in lower numbers, California did not have an MSRP cap for BEVs to be eligible for the program as well.

CARB provides this exemption as the agency has acknowledged that FCVs will be a critical component for the state's environmental strategy. CARB has stated that "successful market launch and continued growth of both FCVs and California's hydrogen fueling network are essential for the State to meet zero-emission vehicle goals set forth in Governor Brown's Executive Order B-16-2012 as well as greenhouse gas reduction, air quality improvement, and petroleum reduction goals set forth in state and federal laws and programs."[2] To this end, California has provided robust policy, regulatory, and financial support for the deployment of FCVs and related hydrogen refueling infrastructure, including MSRP cap exemptions on its vehicle rebate program. This policy can be taken as a model for Connecticut as it develops plans to expand ZEV adoption.

[1] https://cleanvehiclerebate.org/eng/faqs/how-often-do-cvrp-program-requirements-change-0
[2] https://ww2.arb.ca.gov/sites/default/files/2018-12/ab8_report_2016.pdf

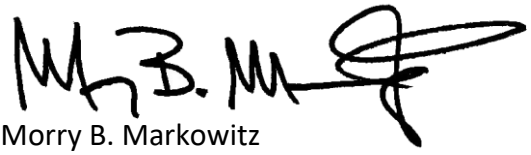
Connecticut and nine other states have signed onto the ZEV Memorandum of Understanding (MOU), collectively agreeing to commit to at least 3.3 million ZEVs on their roadways by 2025.[3] Several of the states have also adopted California's emissions standards requiring automakers to sell ZEVs. In order to meet these goals and regulations, consumers will need to be provided as much choice as possible in their ZEV options, and FCVs are a necessary component.

The adoption of FCVs will provide significant environmental benefit to Connecticut. FCVs emit zero CO_2, NO_x, SO_x, or particulate matter (PM) from the tailpipe. In a well-to-wheels (WTW) comparison, no matter the source of hydrogen fuel, FCVs reduce CO2 emissions by at least 50% compared to gasoline vehicles and are on par with BEVs.[4] When hydrogen is generated from green or zero-carbon sources – such as solar / wind electrolysis or steam methane reformation with carbon capture – CO2 emissions are completely eliminated.

FCHEA urges Connecticut to be inclusive of all ZEVs and recognize the importance of fuel cell transportation to achieving the state's environmental goals by providing a FCV purchase rebate with an MSRP cap exemption. FCVs are the only zero-emission vehicle platform available now, or for the foreseeable future, that replicates today's drivers experience of being able to travel 300-400 miles on a tank of hydrogen fuel and refuel in just three to five minutes. In other words, FCVs offer Connecticut drivers the option of zero emissions with zero compromise.

Should you have any questions or wish to discuss this comment further, I can be reached at any time by email at mmarkowitz@fchea.org or by phone at 202-261-1331.

Sincerely,



Morry B. Markowitz
President
Fuel Cell and Hydrogen Energy Association

[3] https://www.zevstates.us/
[4] Argonne National Laboratory Well to Wheels Calculator. https://greet.es.anl.gov/tools

From: Farrell, Paul
To: DEEP MobileSources
Cc: Christopher, Lakiesha; Babbidge, Tracy
Subject: FW: Sharing some thoughts on CHEAPR 3.0
Date: Wednesday, August 12, 2020 9:46:11 AM

Jim Fleming forwarded these comments from Leo Karl III re: CHEAPR. He's a dealer principal at Karl Chevrolet.

From: Leo Karl III <lkarl@karldirect.com>
Sent: Monday, August 10, 2020 1:25 PM
To: Jim Fleming <jfleming@ctcar.org>
Cc: Leo Karl III <lkarl@karldirect.com>
Subject: Sharing some thoughts on CHEAPR 3.0

Jim,

I tuned into the CHEAPR Board meeting via ZOOM this morning but was not able to stay until the end (I watched until about 10:45). I did not share comments via chat, but I thought I would email some thoughts to you and hope you have a way of sharing these with the full Board and perhaps the folks at CSE that seem to run the program.

While I am a Chevy Dealer, I think you know I have been a big general advocate for EV's from the beginning. Thus, I share these thoughts as both a Dealer with first hand working knowledge of the CHEAPR Program and as an EV advocate in how CHEAPR has helped grow EV business in general. Now that we are almost FIVE years into the CHEAPR program (at least by my records), I also share my experience from the perspective of RETAINING EV customers – many of them early adapters and thought leaders. I have seen EV owner retention as critical and something that I want to focus on, as I think it may be inadvertently left out of thinking thus far.

I realize the CHEAPR program has limited resources that must be used in very targeted ways. I also realize that no government incentive or program can, on its own, completely alter consumer behavior. Thus, rather than fight consumer behavior, I believe it is an opportune time to use CHEAPR 3.0 to begin complimenting consumer behavior. And I think Connecticut may be in position to become a thought leader on this subject.

Dealer Perspective:

- The CHEAPR program has been relatively easy to administer – the process got much better with the new process a couple of years ago.
- The ability to deduct the incentive at the time of sale is a HUGE PLUS.
- I realize dealer buy-in may vary, but to those who have not embraced the program, it is their loss.
- I do advocate for continuing a token dealer incentive as part of this program – EV margins are VERY tight and most of these sales are made to get one more vehicle delivered or to try and gain local EV market share in hopes that one day that will translate into additional business opportunities. Administering the CHEAPR incentive does take time and extra record keeping.

- At a time when FEDERAL EV Incentives have conspired to actually reward manufacturer late-comers to the EV effort, and penalize manufacturer early adaptors, the CHEAPR program does not discriminate.
- See below for my comments on EV OWNER RETENTION – I believe this is CRUTIAL to building momentum.

EV Advocate Perspective:

- The CHEAPR program has continued to draw attention to the myriad of EV models available.
- It seems logical and absolutely correct that the incentive levels have evolved over time to keep pace with the latest technology offerings (EV Range) and also balance the budget of available funds to stretch as far as possible.
- I do believe there is an opportunity to help leverage the sale of pre-owned EV's with some smaller incentive program …. With the aim of putting more total EV's on Connecticut's roads.
    - Thoughts include:
        - A CHEAPR incentive aimed at covering a portion of sales tax due on any qualifying pre-owned EV Sale
            - Perhaps equal to 3 or 4% of the sale price of any qualifying vehicle up to $25,000 (at 3% of max sale price of $25,000, incentive would be up to $750.00)
            - Or 50% of the sales tax due on any sale up to $25,000 (at 6.35% tax on $25,000, 50% of tax due would amount to an incentive of up to $793.75)
            - A CHEAPR rebate equal to CT Registration and Title fees (incentive would be roughly $245)
            - Anything that could draw attention and better value to pre-owned EV's
            - On any Pre-Owned CHEAPR incentive, I don't think any dealer incentive is needed.

On EV OWNER RETENTION:

There are TWO fundamental ways consumers drive EV's ….. they either PURCHASE or LEASE their vehicle. Manufacturers treat purchase and lease incentives differently, and I believe so should the CHEAPR program. Why?

- The CHEAPR program has had a ONE TIME use per CT Licensed driver. (TWO TIME use per business or organization)
- The program has been a strong motivator for new EV consideration and has helped close many purchase sales for customers.
    - For these customers, the CHEAPR incentive helps make the vehicle more affordable and the consumer feels great about their purchase for the long-term (on a typical 72 month loan, a $1,500 incentive lowers monthly payments by about $23/month)
    - From my experience, EV owners are keeping their vehicles longer than their peer ICE vehicle owners – they are VERY HAPPY with their vehicle.
    - This proves the incentives like CHEAPR are helping to put cleaner vehicles on the road and keep them there.
- The program has likely been an even stronger motivator for new EV Lease customers.
    - For these customers, when the CHEAPR incentive is applied to lease payments, the savings is even more dramatic than on a purchase (as they typical lease is 36 months, a

$1,500 incentive lowers monthly payments by about $45/month)
    - HOWEVER, we have seen lease retention rates LOWER for EV customers than typical ICE vehicles. Why?
        - It's not because they don't LOVE their vehicle … they really do as most will say it's the BEST vehicle they've ever had.
        - It IS BECAUSE OF AFFORDABILITY. Fast forward 36 months, and a normal lease payment inflation of maybe 10% becomes 25 or 30% more without another CHEAPR rebate.
        - Sadly, many of these early adaptors are walking away from their EV and going back to an ICE vehicle for payment reasons.
- SUGGESTED SOLUTION:
    - Create a 2-tiered CHEAPR Incentive – one for Purchase and one for Lease.
        - Purchase is ONE TIME per license
        - Lease is TWO or THREE times per license
    - Purchase Incentives might be raised from current levels
    - Lease incentives might be reduced by half from current levels
    - The overall goal is to improve EV Driver Retention

I am not looking to make CHEAPR any more complex than it needs to be. But I am looking for ways to help pave the way to more consistent and lasting EV adaption rates in CT and for ways to continually grow the number of EV's on CT roads. I believe these two core changes would go a long way toward accomplishing these goals.

1) Making the new CHEAPR program 2-tiered – higher incentive for purchase, less for lease (but with the ability for a lease customer to get multiple CHEAPR rebates over time)
2) Adding a modest incentive to spur sales of qualifying pre-owned EV's

Thanks for your consideration of this input.

Best,
Leo

Leo Karl III
President
KARL Chevrolet
203.972.2060 - direct office

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Save a tree. Please only print when necessary.

From: Annie Gilleo
To: DEEP MobileSources
Subject: Greenlots Comments on CHEAPR
Date: Wednesday, August 12, 2020 2:22:58 PM
Attachments: Greenlots CHEAPR response.pdf

Please see the attached comments of Greenlots in response to the Department's proposed revisions to CHEAPR.

Best,

Annie Gilleo

Annie Gilleo
Manager, Policy and Market Development
Greenlots
O: (202) 918-5880 | M: (925) 451-0248
agilleo@greenlots.com
www.greenlots.com

August 12, 2020

Connecticut Department of Energy and Environmental Protection
79 Elm St.
Hartford, CT 06106

Re: CHEAPR Program Eligibility and Program Design Request for Written Comments

Greenlots welcomes the opportunity to provide the Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) Board with comments on the proposed program design for CHEAPR. Greenlots believes CHEAPR is an important mechanism for increasing the purchase of electric vehicles in the state of Connecticut in line with the state's goal to have 125,000 zero-emission vehicles on the road by 2025 and is pleased that the Board is considering several enhancements to the existing program. Below, we offer a few considerations for the Board as they finalize program design:

- Greenlots encourages the CHEAPR Board to consider a larger rebate for Battery Electric Vehicles (BEVs) regardless of e-miles rating, in line with rebate levels offered in neighboring states. Further, incentives for BEVs should be larger than those offered for plug-in hybrid electric vehicles. A larger rebate will increase consumer interest in electric vehicle purchases. According to the Department of Energy and Environmental Protection's (DEEP) Electric Vehicle Roadmap for Connecticut, there are just under 12,000 EVs registered in the state, and EVs account for about 2 percent of annual sales. Over the next five years, Connecticut will need to scale up adoption by orders of magnitude to meet its goal.

- The CHEAPR Board may wish to consider additional funding sources to supplement the level of funds approved in section 94 of Public Act 19-117. For example, Greenlots proposed potentially leveraging ratepayer funding to help further bring down the up-front cost of vehicle purchases in recent comments to the Public Utility Regulatory Authority (PURA). Additional funding could provide larger incentives while maintaining the expected reach of the program.

- The current MSRP cap is below cap levels in neighboring states like Massachusetts. A higher cap would increase the number and types of vehicles eligible for the incentive and support the significant ramp up in electric vehicle adoption that will be needed to meet state goals.

- Including used vehicles in the program is an important step to expand access to electric vehicles. Greenlots supports CHEAPR's expansion to serve the used vehicle market.

- CHEAPR's success is built on its ease of access for consumers, with rebates provided at the point of sale. The Board should consider mechanisms to ensure this accessibility is extended to the proposed supplemental low- and moderate-income (LMI) rebate. Greenlots strongly supports efforts to expand access to electric vehicles to LMI customers and encourages the state to focus on administrative processes and outreach strategies that maximize uptake of this supplemental rebate.

Sincerely,

Annie Gilleo
Manager, Policy and Market Development

The listed commenters submitted identical comments as exemplified by Jennifer Cirino's submission below.

Jennifer Cirino
Scott Peterson
Aurelien Merel
Robert Cohen

From: Jennifer Cirino
To: DEEP MobileSources
Subject: Comments on Proposed CHEAPR Program Changes
Date: Tuesday, August 11, 2020 11:28:55 AM

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.

From: John Lindsey
To: DEEP MobileSources
Subject: Re:Public Comment Period Announced for CT"s CHEAPR Program
Date: Wednesday, July 29, 2020 7:14:40 PM

1. The point of the program seems to be out of alignment with the current state of EV technology. EV's may eventually be affordable to all, but at this point they unfortunately are not. They are affordable to middle and upper income individuals and/or families simply because the cost to develop and manufacture the technology is so expensive. Disallowing the incentive based on income level and MSRP of the vehicle will allow for Connecticut to be one of the less attractive states for EV investment. Finding a path to encourage lower carbon emissions, saving energy, enhancing EV technologies through expansion would be a more appropriate approach to the nascent EV industry.Rebate yes, but open it to all to get the true benefit of EV's, less dependency on fossil fuel, lower carbon emissions, and advancement of the EV technology.

2. The rebate for fuel cell(s) is probably reasonable. With the cost for fuel remaining at 3 to 4 times the cost of gasoline, it's still only a viable option for the wealthy, government pilot programs and larger commercial businesses.

3. Funding for Electric Bikes is a government giveaway in the Northeast. It will never be a significant mode of transport on the cold wet streets that show up in the CT fall, winter and spring season. The carbon reduction would be insignificant and arguable greater with manufacturing of the batteries and motors taken into consideration. Electric bikes are great fun and they encourage exercise so the support of the rebate offer is not discouraged But it needs to be made clear that a rebate for eBikes is of restricted value to the broad populace. To build an electric Bike is possible for under $500 and to purchase the low end EV ready Bike is still pricey at about $1,200. The cost of managing the eBike aspects of the program would outweigh the significantly less than 1% of the population that would benefit from the program. The only possible value would be if the purchaser could automatically get the rebate at the register, leaving the business with the responsibility and cost of processing a rebate that would likely cost the business more cost in dealing with the bureaucracy than the rebate would be worth. There seems to be no fundamental value in offering a rebate for eBikes other than the fun of an eBike and the potential health benefit to a tiny group of citizens.

As a final point there is a significant value inherent in segments of the EV industry. EV City buses and last mile vehicles are actually a lower cost model of the life of the vehicle.School buses are not a lower cost model, but you can't place a value on our kids not having to inhale diesel. And in many instances the school buses can be used as an emergency energy source in natural disasters due to the concentration of vehicles and their dwell time. In the next two years regional transit will also emerge in the EV space which will also be cost saving models for tractor trailers hauling 80,000 lbs for routes under 300 miles.

The support of the EV industry at the state level should be fully embraced, but it should also be done intelligently, thoughtfully and with the benefit of a positive outcome for the state residents and businesses.

Sincerely,

John Lindsey

20 Fowler Road
North Stonington CT

Adding electric bikes to the mix

From: Larry T
To: DEEP MobileSources
Subject: Proposed changes to the CHEAPR program
Date: Wednesday, August 12, 2020 11:35:40 AM

Folks...
I attended the public session on July 17th. I enthusiastically support the CHEAPR program and have been a recipient of CHEAPR benefits when I bought my EV almost two years ago... It would not have been possible for me to buy an EV without the program.

Listening to the discussion I wanted to express my support for the following:
1) Increase the MSRP limit from $42,000 to $55,000 given the $45k-$55k price range seems to be the most popular and therefore will drive more adoption of EVs.
2) Restore the incentives back to the 10/2019 levels again as that will drive more EV adoption
3) Provide additional financial support for low and middle income buyers including for used cars

I'm not so enthusiastic about financially supporting the e-bike program given the cost of e-bikes and what I expect will be mostly wealthy purchasers however if there's data suggesting low and moderate income buyers will purchase e-bikes then I believe a financial incentive should be offered.

Thank you very much

Larry Thompson
Fairfield, Connecticut

The listed commenters submitted identical comments as exemplified by Michael Zager's submission below.

Michael Zager
Jim Head
David Beers
Royal Graves

From: MICHAEL ZAGER
To: DEEP MobileSources
Subject: Public Comment on CT CHEAPR EV rebate changes
Date: Monday, August 10, 2020 8:52:45 PM

CT DEEP and CHEAPR Board Members,

Here is my public comment on the EV rebate changes proposed in August 2020.

Please reconsider e-bike rebates as an immediate pilot project within CT CHEAPR, or work actively to incorporate that into 2021 legislation.

Even with EV rebates on used vehicles, an EV car is not financially accessible to low income Connecticut households. An EV rebate program that doesn't engage low-income households is structurally inequitable.

In addition to the equity benefit, e-Bikes have an order of magnitude lower life cycle greenhouse gas emission level than an EV car when they are used as motor vehicle replacements. e-Bikes enable longer, predictable, sweat free commutes and could move many Connecticut households to one less car.

Thank you for considering this public comment.

Michael Zager
Windsor

From: Paul Roszko
To: DEEP MobileSources
Subject: Comments on Proposed CHEAPR Program Changes
Date: Monday, August 10, 2020 10:57:12 PM

I support the EV of CT comments below.
Thank you,
Paul Roszko
Danbury, CT

-
- 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.

Sent from Paul

From:	Ashley Seaward
To:	DEEP MobileSources
Cc:	Morgan Lommele; Alex Logemann
Subject:	RE: Public Comments Concerning the Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) Program
Date:	Wednesday, August 12, 2020 3:42:59 PM
Attachments:	PeopleForBikes_CT_EBikePublicComment_LegalAnalysis.pdf

Connecticut CHEAPR Board,

Please see PeopleForBikes' public comment attached in response to Connecticut's Department of Energy and Environmental Protection's (DEEP) Public Notice and Request for Written Comments dated July 29, 2020, concerning the Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) Program.

Sincerely,

Ashley Seaward
Regulatory & Policy Analyst
PeopleForBikes Coalition
P.O. Box 2359 / Boulder, CO 80306
EMAIL: ashley@peopleforbikes.org
PHONE: 720. 648. 8376
PeopleForBikes.org

peopleforbikes
P.O. BOX 2359 BOULDER, CO 80306
PeopleForBikes.org | 303.449.4893

August 12, 2020

Connecticut Hydrogen and Electric Automobile Purchase Rebate Program Board
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford CT 06106-5127

RE: Public Comments Concerning the Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) Program

Dear members of Connecticut's Hydrogen and Electric Automobile Purchase Rebate Program Board,

On behalf of the PeopleForBikes Coalition (PeopleForBikes), I am writing in response to the Connecticut's Department of Energy and Environmental Protection's (DEEP) Public Notice and Request for Written Comments dated July 29, 2020 concerning the Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) Program. PeopleForBikes supports the inclusion of electric bicycles (commonly referred to as "e-bikes") in this program. We also respond to DEEP's request for comments concerning its statutory interpretation of the eligibility of electric bicycles under the CHEAPR Program as currently authorized, and/or, as a general matter, whether or how electric bicycles should be provided incentives under the CHEAPR program.

We believe that current Connecticut state law permits electric bicycles to be included in the CHEAPR program. Our analysis explains outlines our reasoning. We strongly encourage DEEP to includes e-bikes in the CHEAPR program by implementing an e-bike rebate pilot program in 2021.

1. "Electric bicycles" are "vehicles" as a matter of Connecticut Law

As part of the materials pertaining to its Request for Public Comments, DEEP asserts that e-bikes are not eligible for participation in the CHEAPR program because they are not "vehicles." In reaching this conclusion, DEEP relies on its analysis of various statutory provisions in Titles 14 and 16 of the Connecticut statutes. Like DEEP, we agree that a device must be "vehicle" in order to be eligible for the CHEAPR program. We also agree that the term "vehicle" is not explicitly defined in the relevant provisions of Title 16, and therefore it is proper to examine Connecticut's vehicle laws in Title 14 in order to construe the term "vehicle." However, we believe DEEP's analysis fails to take into account crucial terms and definitions in Title 14, which when read by their plain meaning, clearly establish that an "electric bicycle" is "vehicle."

a. *The definitions of "electric bicycle" and "bicycle" authoritatively establish that a class 1, class 2, or class 3 electric bicycle is a vehicle.*

There is no question that electric bicycles are "vehicles" within the meaning of Connecticut law. The definitions of "electric bicycle" and "bicycle" conclusively establish that both are considered "vehicles" on their face and when read by their plain meaning.

Pursuant to C.G.S. § 14-1(31), an "electric bicycle" means "**a bicycle** equipped with operable foot pedals and an electric motor of fewer than seven hundred fifty watts of power that is either a class 1, class 2 or class 3 bicycle." Pursuant C.G.S. §14-286(e)(2), a "bicycle" is defined as "**all vehicles** propelled by the person riding the same by foot or hand power." Because an "electric bicycle" is explicitly a type of "bicycle," and a "bicycle" is explicitly a type of "vehicle," an "electric bicycle" is a "vehicle." Because electric bicycles are defined as class 1, class 2, and class 3 electric bicycles, a class 1, class 2, or class 3 electric bicycle is a "vehicle" under Connecticut law.

The fact that bicycles and electric bicycles are vehicles is explicitly reinforced by the provisions of Connecticut law which grant bicyclists their rights. Pursuant to C.G.S. § 14-286a(a) (emphasis added):

> *Every person riding a bicycle, as defined in section 14-286, or an electric bicycle upon the traveled portion of a highway* ***shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of any vehicle*** *subject to the requirements of the statutes relating to motor vehicles, except as to those provisions which by their nature can have no application . . . ."*

The prohibition of electric bicycles from participating in the CHEAPR program would clearly violate the Legislature's mandate that electric bicycles have parity with other vehicle classes. The Connecticut Department of Transportation could not be any more emphatic about the bicycle's status as a vehicle under state law on its Share the Road website when warning bike riders about their rights and duties, "**The same laws that apply to motorists apply to cyclists!"** Connecticut Department of Transportation, Share the Road CT: Cyclists (available at: https://portal.ct.gov/DOT/Commissions/Share-the-Road-CT/Share-the-Road-Cyclists) (last visited Aug. 10, 2020) (emphasis in original). There is no ambiguity with respect to whether "electric bicycles" are "vehicles" – the definitions in Connecticut law are clear and conclusive.

b. There is no exclusion in the definition of "vehicle" for electric bicycles

In reaching its conclusion that electric bicycles are not "vehicles," DEEP appears to rely heavily on the definition of "vehicle" at C.G.S. § 14-1(106). That definition excludes "devices propelled or drawn by human power . . . ." Reviewing the full definition of the term "vehicle" is instructive:

> *[A]ny device suitable for the conveyance, drawing or other transportation of persons or property, whether operated on wheels, runners, a cushion of air or by any other means. The term does not include devices propelled or drawn by human power or devices used exclusively on tracks*;

There is no question that electric bicycles meet the first part of this definition, and there is no indication in DEEP's analysis that "electric bicycles" fail to meet the criteria in the first sentence. There is also no

question that neither "bicycles" nor "electric bicycles" are explicitly excluded from the definition of "vehicle." For "electric bicycles" in particular, their omission from the exclusions in the definition of "vehicle" would be particularly odd if that had been intended; the recent e-bike legislation explicitly excluded "electric bicycles" from every other definition that may have caused confusion about their status. *See, e.g.*, C.G.S. §§ 14-1(57) (explicitly excluding electric bicycles from the definition of "motor-driven cycle"), 14-1(58) (explicitly excluding electric bicycles from the definition of "motor vehicle")[1], 14-1(59) (explicitly excluding electric bicycles from the definition of "motorcycle"). Given that e-bikes meet the definition of "vehicle," and they are not clearly listed amongst the devices that are excluded, they are "vehicles."

DEEP's analysis and conclusion that "electric bicycles" are not "vehicles" appears to rely on the vague exclusion for "devices propelled or drawn by human power." Any confusion about this phrase and the status of bicycles and electric bicycles as vehicles is clearly resolved by the analysis of their definitions above. The definitions of "bicycle" and "electric bicycle" conclusively establish that they are "vehicles."

Even if this "human powered" exclusion could be construed to apply to traditional bicycles, which are solely human powered, it cannot be extended to electric bicycles under its plain meaning. E-bikes are capable of generating up to 100% of their power from their electric motor. Given these characteristics, the exclusion for "devices propelled or drawn by human power" cannot apply to e-bikes under its plain meaning. Further, given their motor-powered capabilities, it is extremely unlikely that the Legislature would have intended to exclude e-bikes from the definition of "vehicle" using an exclusion for "devices propelled or drawn by human power."

2. Electric bicycles are "battery electric vehicles"

Electric bicycles differ from traditional human-powered bicycles due the inclusion of three key components: 1) an electric motor that is capable of providing up to 100% of the bicycle's power; 2) a battery or battery pack that supplies the electric motor with energy for propulsion; and 3) electronic controls and wiring to connect the motor, battery, and typically an onboard computer, controller, and/or throttle that regulates the motor's output. Electric bicycles do not have alternative sources of motor power such as a combustion engine or fuel cells.

In order to be eligible for CHEAPR funding it is our understanding that a vehicle must meet one of the relevant definitions in C.G.S. § 16-19eee. E-bikes are properly classified as a "battery electric vehicle" within this section.

A "battery electric vehicle" is defined as "any vehicle that operates solely by use of a battery or battery pack." Like electric, battery-powered cars, motorcycles, or scooters, electric bicycles are equipped with motors that are solely supplied with power from the battery or battery pack. Therefore, an electric bicycle is a "battery electric vehicle."

3. If electric bicycles are not "battery electric vehicles," they are "hybrid electric vehicles"

[1] We agree with DEEP's conclusion that electric bicycles are not "motor vehicles."

To the extent DEEP disagrees that an "electric bicycle" is a "battery electric vehicle," an electric bicycle would instead be properly classified as a "plug-in hybrid electric vehicle." The definition of "hybrid electric vehicle" is less stringent than "battery electric vehicle," and includes "any vehicle that allows power to be delivered to the driver wheels by either a combustion engine or by a battery-powered electric motor, or both . . . ." C.G.S. § 16-19eee(4). As noted above, electric bicycles rely entirely on a "battery-powered electric motor" to deliver their motorized power to the wheels of the bicycle. We further submit that electric bicycles are "plug-in hybrid electric vehicles" as all e-bikes are externally charged through a power cord plugged into an electrical outlet, and the power cord must be removed in order to ride the electric bicycle. This means that the battery is both powered "from an off-vehicle electric source" (the household or building power) and the "off-vehicle source cannot be connected to the vehicle while the vehicle is in motion" as required by C.G.S. §§ 16-19eee(5).

We respectfully ask that DEEP reconsider its legal conclusion based on the analysis provided above, and include e-bikes in the CHEAPR program by implementing an e-bike rebate pilot program in 2021. We appreciate the chance to share our resources and knowledge and welcome the opportunity to provide any further information.

Sincerely,

Morgan Lommele
Director of State + Local Policy
PeopleForBikes
720-470-2981
morgan@peopleforbikes.org

From: Rachel Scott
To: DEEP MobileSources
Cc: Dwayne Paul
Subject: Comment on CHEAPR Program
Date: Wednesday, August 12, 2020 1:54:13 PM

Dear Connecticut Department of Energy and Environmental Protection Officials:

We write from the Collaborative Center for Justice, a faith-based social justice advocacy organization based in Hartford. We are sponsored by six Congregations of Women Religious across the state. We advocate for policies that will advance the common good and improve the lives of low-income and marginalized people. We are also committed to caring for our common home by advocating for policies that will mitigate climate change and advance environmental justice. From this lens, we are writing to urge you to strengthen and expand the electric vehicle (EV) rebate program, particularly for low- and moderate-income applicants.

The transportation sector accounts for the largest source of greenhouse gas emissions in the state. In order to meet our mandated climate goals, we must make significant changes to the way people move around the state and region. One of these changes should be increasing the accessibility and affordability of electric vehicles. One of the many benefits of electric vehicles is that they have no tail-pipe emissions, which is both a health and environmental benefit.

However, the upfront cost of purchasing an EV creates a barrier for many residents in Connecticut. We are concerned about the proposal to maintain the base rebate levels at the lower rates adopted last fall. Lower rebate levels have understandably led to a decline in EV purchases.

We urge you to instead restore the rebate levels and price cap that were reduced in October 2019. Connecticut's rebate levels should be kept competitive with neighboring states' levels. We also strongly support the proposed inclusion of a higher rebate level for low and moderate income (LMI) applicants. Additionally, we strongly support rebates for used EVs, and think that limiting the used EV rebates to LMI applicants, who need the assistance most, would be an important component of the rebate program. Without a robust rebate program for LMI applicants, these individuals will effectively be left out of the transition to electric vehicles. Greater access to EVs, including through affordability, is critical if Connecticut is going to meet its goals of widespread EV usage. If we are going to meet our broader climate goals, EVs cannot just be a possibility for the wealthy. Further, we believe that low-income individuals should have a real opportunity to participate in the programs and strategies that will have an impact on their health and environment, such as the transition to electric vehicles.

Thank you for the opportunity to comment, and thank you for your ongoing commitment to addressing climate change through various strategies.

Respectfully submitted,
Dwayne David Paul – Director
Rachel Lea Scott, MSW – Associate Director

Collaborative Center for Justice
40 Clifford Street, Hartford, CT 06114

From: Hadley, Robert
To: DEEP MobileSources
Subject: Re: Public Comment Period Announced for CT"s CHEAPR Program
Date: Friday, July 31, 2020 12:40:37 AM

Dear DEEP:

I bought a 2016 Toyota Mirai a year ago after contacting Sheldon Paul at Nel Hydrogen in Wallingford, CT who told me that they had a working hydrogen pump outside their building. Once I got there in June, 2019, it became apparent that the pump needed repairing, but a technician was able to get me hydrogen and also in early July, 2019, but that was it. I've driven the car about 300 miles during June and July of 2019, but that's it. I have been assured over the last year that the pump was being repaired, but nothing has happened, despite numerous texts to Sheldon and this is now a year later.

I realize that FCEVs may not be here in CT for awhile, but I want to advance fuel cell vehicles in CT so I am holding onto the car. I am keeping enough range in the car to get me to Wallingford if they ever do get the pump fixed.

My question to you is whether there are any grants I could apply for to get a home hydrogen fueling station installed in my garage. Simple Fuel and Millenium Reign Energy both have one, but they are around $100K. Honda had the perfect solution with their Solar Hydrogen Fueling Station back ten years ago which had its electrolyzer and compressor in one and it didn't store the hydrogen, but rather slow fueled the car overnight, only putting in 0.5 kg of hydrogen, enough to drive 30 miles. This seemed like the prefect solution for me, it was small and would be lower cost due to the lack of a separate compressor and storage tank. I can't seem to find out, even from Honda, what happened to this pump which I have seen pictures of, but I don't think it exists today.

It is sad that we can't seem to get these amazing technological cars into the northeast (I've heard about the delay due to the tunnels in Boston), but I remember articles from four years ago saying the cars would be here soon.

Let me know what if anything I can do to get hydrogen for my Mirai without spending my retirement to get it. Thank you for your time.

Dr. Robert Hadley

Consider the environment. Please do not print this e-mail message unless you need to.

Dr. Robert H. Hadley
Office Room F-37
860-733-1618

From: CT DEEP - Bureau of Air Management <deep.mobilesources@ct.gov>
Sent: Wednesday, July 29, 2020 3:10 PM
To: Hadley, Robert <RHadley@txcc.commnet.edu>
Subject: Public Comment Period Announced for CT's CHEAPR Program

If you no longer wish to receive DEEP emails regarding funding opportunities, please use the link at the bottom of this email to Unsubscribe.

Public comment period announced on certain aspects of the Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) program

Comment Period Closes August 12, 2020

The CHEAPR program, which began as a pilot program in mid-2015, was created to help achieve price parity between internal combustion engine (ICE) vehicles and Electric Vehicles (EVs). As of June 30, 2020, the CHEAPR program has supported the purchase or lease of over 6,000 EVs in Connecticut.

For the continued advancement of EVs and in recognition of the success of the pilot program, section 94 of Public Act 19-117 was passed by the General Assembly to establish a more formal structure for CHEAPR. Some of the resulting program changes include a stable funding source of $3 million/year through the end of 2025 and a new governing board consisting of representatives from state government, environmental organizations, the environmental justice community, and the Connecticut Green Bank.

The newly established CHEAPR Board is responsible for setting appropriate rebate levels and maximum income eligibility for rebates, and will conduct annual

program evaluations. The second Board meeting was held on July 17, 2020 and based on the outcome of that meeting, DEEP has issued a public notice requesting comment on the following:

- Whether the proposed CHEAPR program design elements for used EVs are appropriately limited to Low-Moderate Income (LMI) applicants.
- Whether the proposed rebate level for Fuel Cell Electric Vehicles (FCEVs) is appropriate.
- Whether DEEP's statutory interpretation regarding the eligibility of electric bicycles under the CHEAPR Program is correct and if so, whether or how electric bicycles should be incentivized.

Further details on program changes requiring comment can be found in the CHEAPR Proposal for Public Comment.

How to comment to DEEP: You may email written comments to deep.mobilesources@ct.gov prior to 5 p.m on August 12, 2020. Please provide your full name, company name (if applicable), address, e-mail, and telephone number.

DON'T FORGET! Add our email address to your address book to ensure that you receive our emails and stay in the know.

From:	Ron Nelson
To:	DEEP MobileSources
Subject:	Comments on Proposed CHEAPR Program Changes
Date:	Wednesday, July 29, 2020 4:01:41 PM

600 vehicles in 5 years is a dismal failure and the creators should be fired. (I bought 2 of those)
We needed 5 million EVs on the road by now.
Go to each Dealer in the State and say, "thanks for being a valuable partner in the state of CT but if you don't go 100% electric vehicles in 1 year, leave our state.
YOU are killing the citizens of this state and 150,000,000 species on this great Planet.

BTW: Tell the gas stations to be 100% EV charging stations in 1 year or they get the boot.

Follow New Jersey for the electric vehicles and plug-in hybrid electric vehicles – $5000 total incentive but it's $25 per mile that the vehicle can go on electricity/battery.
MSRP of the vehicle has to be less than $55,000.

Low to moderate income folks should be given an electric vehicle with 150 miles per charge.
They can pay $199 a month for three years but that's it.
Cap this program at $100 million.

Fuel cells, I have no clue.

Electric bicycles: $500 incentive.
I have a Raliegh Superb IE.
I bought it in the Summer of 2019.
It cost me $1,800 and that price was a tad too high....the incentive would help support the sale of these bikes.

Ron Nelson
165 Orchard Hill Lane
Fairfield, CT 06824
203-543-3200 cell/text

2012 bought 6.24kW rooftop solar PV
60,000,000 watts produced on my roof.
Thousands of dollars saved already....after my net investment.

EVs:
2015 E-Golf
2016 Chevy Volt - NO GAS burned during Covid.
2016 ford energi c-max

1 electric bike

1 electric "one wheel"

From:	Charles Rothenberger
To:	DEEP MobileSources
Subject:	Save the Sound Comments on CHEAPR Program Design
Date:	Wednesday, August 12, 2020 4:57:42 PM
Attachments:	Save the Sound Comments on CHEAPR Program Design 8.12.20.pdf

Good afternoon,

Please accept the attached comments from Save the Sound on the CHEAPR Program Design.

Thank you,

Charles J. Rothenberger
Climate & Energy Attorney
Save the Sound
900 Chapel Street, Suite 2202 I New Haven, CT 06510
office: (203) 787-0646, x122
crothenberger@savethesound.org

Save the Sound®
Action for our region's environment.

July 12, 2020

Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106
Email: DEEP.mobilesources@ct.gov

RE: Comments on CHEAPR Program Design

To Whom It May Concern,
Save the Sound is pleased to provide these comments in response to DEEP's request for public comment on several aspects of the Connecticut Hydrogen and Electric Automobile Purchase Rebate ("CHEAPR") program. Among the questions for which feedback is being solicited are:

- The incentive structure and rebate levels for the program.
  - **QUICK RESPONSE:** The rebate levels and price cap (which were reduced in October 2019) should be restored to their former levels and be made competitive with our neighboring states. We support the inclusion of a higher rebate level for LMI applicants.

- Whether incentives for used EVs should be limited to low and moderate income applicants.
  - **QUICK RESPONSE:** We support rebates for used EVs, and think that limiting the used EV rebates to LMI applicants has merit as a means of ensuring broader access to electric vehicles.

- Whether the rebate level for Fuel Cell Vehicles ("FCEVs") is appropriate.
  - **QUICK RESPONSE:** Although we don't view the FCEV rebate as necessary at this time (as FCEVs are not currently available for sale in CT), we understand the rationale for including them based on the regulatory framework governing the zero emission vehicle program. We believe, however, that the incentive level warrants more consideration to determine if a $5,000 rebate level is necessary and or warranted.
  -
- DEEP's statutory interpretation that electric bicycles are not eligible for rebates under the CHEAPR program.
  - **QUICK RESPONSE:** We agree with DEEP's analysis that electric bicycles ("e-bikes") are not eligible for CHEAPR rebates under the current statutory definitions. We further believe that "e-bikes" fall outside of the scope of the intended purpose of the CHEAPR program and that "e-bikes" should not be considered for inclusion within the CHEAPR program in the future, as it will divert limited funding away from the program's climate and EV goals.

Background:

Connecticut has committed to reducing its greenhouse gas ("GHG") emission by 45% by 2040 and 80% by 2050.[1] The transportation sector is currently the single largest source of greenhouse gas emissions in Connecticut, accounting for approximately 38% of economy-wide emissions.[2] The primary source of these emissions is the use of fossil fuels in passenger cars and light-duty trucks. As our electricity grid becomes increasingly cleaner, the beneficial electrification of the transportation sector will play an important role in allowing Connecticut to meet its GHG reduction goals.

As part of its commitment to mitigating climate change, Connecticut has adopted ambitious, but necessary, goals for increasing the market penetration and deployment of electric vehicles ("EVs) in the state. Under the terms of the 2013 Multi-State Zero Emission Vehicle Memorandum of Understanding ("ZEV MOU"), Connecticut and eight other Northeast states set a goal of having 3.3 million EVs on the road by 2025. Connecticut's share of that number is approximately 125,000 – 150,000 EVs.[3]

In its 2019 report, the Governor's Council in Climate Change ("GC3") recommended that by 2030 at least 20% of light-duty vehicles in Connecticut (or roughly 500,000) should be EVs in order to keep the state on track to meet our climate goals.[4]

As of July 1, 2020, there were only 12,624 EVs registered in Connecticut.[5] Robust financial incentives are critical to reaching these goals, as barriers to widespread consumer purchasing continue, including higher upfront purchase price, concern over availability of public charging stations, and less familiarity with EVs compared to their conventional ICE counterparts.

The Incentive Structure and Rebate Levels for the Program:

Among the positive changes being proposed for the CHEAPR program are:

- The addition of a rebate for used EVs.
- Supplemental rebate levels for low and moderate income individuals.

We fully support both of the above design element improvements that will broaden the base of customers who might consider (and purchase) an electric vehicle rather than a polluting conventional vehicle. This is important in terms of achieving Connecticut's minimum deployment targets and correcting the public perception of electric vehicles as appealing only to affluent individuals.

In addition to the design elements above, however, some problematic proposals are also being considered.

We disagree with the proposal to maintain the incentive levels at the lower rate adopted last October. These lower incentive levels have resulted in a decline in EV purchases and are contrary to Connecticut's professed commitment to wide-scale EV adoption.

[1] Conn. Gen. Stat. § 22a-200a.
[2] 2017 Connecticut Greenhouse Gas Emissions Inventory. Available at < https://portal.ct.gov/-/media/DEEP/climatechange/2017_GHG_Inventory/2017_GHG_Inventory.pdf>.
[3] See Electric Vehicle Roadmap for Connecticut: A Policy framework to Accelerate Electric Vehicle Adoption (2020), at 13.
[4] Governor's Council on Climate Change, Building a Low Carbon Future for Connecticut: Achieving A 45% GHG Reduction By 2030 (December 18, 2018), at 28. Available at <http://www.dpuc.state.ct.us/DEEPEnergy.nsf/c6c6d525f7cdd1168525797d0047c5bf/f7ed4932eec438d0852585520001c81b/$FILE/EV%20Roadmap%20for%20Connecticut.pdf>.
[5] https://portal.ct.gov/DMV/News-and-Publications/News-and-Publications/Electric-vehicle-stats

We urge the CHEAPR Board to restore Connecticut's EV rebates to a level that is competitive with our neighboring states. To do this, we recommend the Board consider adopting the following EV Rebate levels:

- All-Battery EV (with a range of at least 200 miles): $2,500
- All-Battery EV (with a range less than 200 miles): $1,500
- Plug-In Hybrid EV's (electric range of at least 25 miles): $5,00

Incentives levels should reflect the level of technology (e.g., range, which is also likely to be reflected in the MRSP) and send appropriate market signals to manufacturers.

Accordingly, we suggest keeping the rebate level for plug-in hybrids ("PHEVs") relatively modest at the current $500, as PHEVs generally don't have the range-anxiety issues common to all-battery electric vehicle ("BEVs") to overcome. Additionally, if we are to be successful in our greenhouse gas mitigation efforts, we need eventually to move beyond transitional PHEVs in favor of a 100% BEV fleet.

In accordance with those principles, we also recommend increasing the incentive level for BEVs with a range of less than 200 miles to $1,500, and for more robust BEVs with a range of 200 miles or greater we recommend increasing the incentive to $2,500.

Additionally, we recommend that CT should restore the price cap for eligible vehicles to $50,000. The price cap was lowered from $50,000 to $42,000 in October 2019. This change removed a number of EV models from eligibility. Restoring the higher price cap would align our incentive program with Massachusetts, while also expanding the number of eligible EV models on the market and providing greater consumer choice.

Electric Bicycles:

With respect to electric bicycles, as noted above we agree with DEEP's statutory analysis that electric bicycles ("e-bikes") are not eligible for CHEAPR rebates under the current statutory definitions.

We further believe that "e-bikes" fall outside of the scope of the intended purpose of the CHEAPR program and that "e-bikes" should not be considered for inclusion within the CHEAPR program in the future, as it will divert limited funding away from the program's climate and EV goals.

It is unclear that rebates for "e-bikes" are either necessary from a market perspective or useful in advancing the state's climate policy, as e-bikes are unlikely to displace passenger vehicles in Connecticut. In fact, it seems they're most likely to displace regular (i.e., non-electric) bikes and/or reduce demand for city transit, while increasing road hazards. Moreover, in contrast to EVs, sales of electric bicycles are already booming.[6]

When faced with the huge gap in meeting our EV deployment targets, goals that have significant positive climate impacts, it is difficult to justify diverting CHEAPR funds to this purpose.

Sincerely,
Charles J. Rothenberger
Climate & Energy Attorney

[6] Retail sales of e-bikes are experiencing robust year over year sales growth, and sales of e-bikes are projected to be 130 million between 2020 and 2023. See Deloitte Insights, Technology, Media, and Telecommunications Predictions 2020, at 120. Available at <https://www2.deloitte.com/us/en/insights/industry/technology/technology-media-and-telecom-predictions.html>.

From: Scott Moulton
To: DEEP MobileSources
Subject: Public Comment on CT CHEAPR EV rebate changes
Date: Monday, August 10, 2020 10:03:04 AM

CT DEEP and CHEAPR Board Members,

Here is my public comment on the EV rebate changes.

Along with the obvious environmental and health benefits, I also offer humanitarian reasons to consider the rebate pilot program.

First, ebikes would open up the ability for people like my wife to take a bike for exercise, transportation for school, and replace some very short trips that normally would take place in a car.

Second, many families control car access and an ebike would greatly expand the transportation options for families to participate in a variety of activities without being gate-checked by capacity.

Finally, ebikes would allow for a greater number of workers to participate in the work force both without fear of spreading covid and building a healthier lifestyle and stronger lungs.

The savings in health benefits alone will more than make up for the rebate cost along with generating business activity for local shops. More savings are found in the decreased wear on CT roads and highways would also be another point of savings that will outweigh the cost of the rebate program.

The relief in traffic costs will allow for public/private partnerships and generate goodwill between the three communities of public agency, private enterprise, and civil society as mile-for-mile, bikes and infrastructure have far greater capacity for movement than any other mode of transportation. It also solves last-mile issues found in every public transportation scheme.

At every level and point, the cost of not having a rebate program that puts CT residents on bikes and ebikes will be borne in the environmental, physical, and emotional damages to every resident of the state.

Thank you for considering this public comment.

Scott Moulton
Bristol, CT

#gorideabike

From: Scott Peterson
To: DEEP MobileSources
Subject: Comments on Proposed CHEAPR Program Changes
Date: Saturday, August 1, 2020 7:18:18 PM

My name is Dr. W. Scott Peterson. I am a long-time resident of CT. My address is 317 Tranquillity Road, Middlebury, 06762. Phone 203-598-8922.

I am the owner of a Tesla Model 3 vehicle, that I purchased in October of 2018. I love it BTW.

I have the following comments, all supportive of electric vehicles and the many benefits they provide:

I support raising the vehicle price cap from $42K to $50K.
I support raising the incentive levels back to where they were prior to October 2019.
I support the supplemental incentive for low and middle income (LMI) individuals/families.
I support a rebate for used EVs, limited to LMI.
I support creating a pilot incentive of $500 for e-bikes for LMI.
I advocate suspending the incentive for fuel-cell vehicles, which can be revisited in a few years. Irrelevant right now.

Thank you for receiving these comments.

W. Scott Peterson, M.D.

From: Sharon H
To: DEEP MobileSources
Subject: Comments on Proposed CHEAPR Program Changes
Date: Wednesday, August 5, 2020 1:23:24 PM

Climate change will be the biggest problem to face youth and families in our known history. If we wish to save our planet and preserve it for future generations, climate change must be dealt with head on. In 2018, the State of Connecticut set a goal of producing 40% of its electric power through renewables by 2030, rising to 100% by 2040 and of reducing greenhouse gas emissions to 80% below 2001 levels by 2050 (2018 CT DEEP Comprehensive Energy Strategy). Light duty vehicles account for 40% of Greenhouse gases in Connecticut. One of the ways to do this is to encourage the purchase of Electric Vehicles. The CHEAPR pilot program provided a point-of-sale rebate, up to $5,000, for Connecticut residents, businesses, and municipalities for the purchase or lease of a new eligible BEV, FCEV, or PHEV. I support the continued advancement of EVs in CT by continuing these rebates and establishing a more formal structure for CHEAPR. including a stable funding source of $3 million/year through the end of 2025 and a new governing board consisting of representatives from state government, environmental organizations, the environmental justice community, and the Connecticut Green Bank.

On behalf of all the citizens in Branford, I urge you to **VOTE YES** to establish a more formal structure for CHEAPR and support the legislative support for EV's in Connecticut

Sharon Huttner

Branford CT

From:	Sarah Krame
To:	DEEP MobileSources
Subject:	Sierra Club Comments re CHEAPR Program
Date:	Wednesday, August 12, 2020 3:30:19 PM
Attachments:	2020.08.12 Sierra Club CHEAPR Comments FINAL.pdf

Good afternoon,

Attached please find the comments of the Sierra Club in response to the Department of Energy and Environmental Protection's request for public comment on certain aspects of the Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) program.

Sincerely,
Sarah Krame

--

Sarah Krame

Associate Attorney

Sierra Club Environmental Law Program

50 F St. NW, 8th Floor

Washington, DC 20001

Tel: (202) 548-4597

Fax: (202) 547-6009

August 12, 2020

VIA ELECTRONIC MAIL

Connecticut Dept. of Energy and Envtl. Protection
79 Elm Street
Hartford, CT 06106
Email: DEEP.mobilesources@ct.gov

RE: Comments on Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) Program Design

To Whom It May Concern:

On behalf of its more than 11,000 members in Connecticut, the Sierra Club respectfully submits the following comments in response to the Department of Energy and Environmental Protection's (DEEP) request for public comment on certain aspects of the Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) program.

The Sierra Club applauds DEEP's efforts to increase electric vehicle (EV) adoption in Connecticut. Based on the analysis included in the Governor's Council on Climate Change (GC3) final recommendations, the state will need to deploy 500,000 light-duty electric vehicles by 2030 in order to ensure the transportation sector is on track to achieve its share of the state's 45% by 2030 greenhouse gas (GHG) reduction target.[1] Incentivizing adoption of EVs through the CHEAPR program is perhaps the most critical step DEEP can take to achieve the necessary level of EV deployment. A 2019 Synapse study examining transportation electrification in New York found that rebates, which reduce the upfront cost of EVs relative to internal combustion engine (ICE) vehicles, had the largest effect on EV sales of all interventions modeled.[2]

The Sierra Club commends the inclusion of a used EV rebate available to low- and middle-income (LMI) consumers. Equitable access to clean transportation for LMI communities must be a central tenet of any transportation electrification plan, as these communities have been disproportionately burdened by transportation emissions resulting from more polluting and health-harming vehicles and heavy traffic. Providing the used EV rebate exclusively to LMI consumers will facilitate more equitable EV ownership and is an important step in supporting LMI communities and increasing access to the benefits of clean transportation.

[1] Governor's Council on Climate Change, Building a Low Carbon Future for Connecticut, December 18, 2018, p. 28.
[2] Transforming Transportation in New York: Roadmaps to a Transportation Climate Target for 2035, Synapse Energy Economics, September 2019, p. 9.

The Sierra Club supports the addition of a rebate for e-bikes to the CHEAPR program and proposes that the rebate be limited to LMI consumers. Car ownership rates are lower in LMI and underserved communities in Connecticut. E-bikes provide a more affordable option for LMI consumers to access the benefits of electrified transportation and are more likely to serve as a primary method of transportation for LMI commuters. Given the limited funding available for the CHEAPR program, DEEP should seek additional funding both to extend the life of the program overall and to expand the rebate offerings to include e-bikes.

DEEP should consider reducing the fuel cell electric vehicle (FCEV) rebate to the same amount as the maximum battery electric vehicle (BEV) rebate, as there is no unique environmental benefit to FCEVs that makes them preferable to BEVs. If BEVs above a cost of $42,000 are excluded from the CHEAPR program because consumers buying vehicles in this price range presumably have sufficient ability to pay, it seems unnecessary to provide an outsize incentive for FCEVs at that price point.

Sierra Club also inquires as to the reasoning for inclusion of a tiered rebate that differentiates between BEVs with a range greater than 200 miles and those with a range of less than 200 miles. If DEEP has determined that range is an accurate proxy for determining whether EVs are a consumer's primary mode of transportation or a secondary vehicle, which would be driven less frequently, then such a distinction might be appropriate. If range is not a proxy for secondary vehicles then DEEP should consider providing the same incentive for all BEVs, as any mile driven in a BEV provides emissions reduction benefits.

Finally, the Sierra Club urges DEEP to consider raising the rebate amount for BEVs to $2,500. The CHEAPR program historically offered more robust rebates of up to $3,000 in 2015-2018, and up to $2,000 in 2018-2019. Connecticut would fall well behind neighboring states in offering a rebate of $1,500 for BEVs: New Jersey offers a rebate of up to $5,000,[3] Massachusetts offers a rebate of $2,500,[4] New York offers a rebate of up to $2,000,[5] Vermont offers a base incentive of $2,500,[6] Maine offers a base incentive of $2,000,[7] and Delaware offers a rebate of $2,500.[8] At the very least, Connecticut should aim to offer a rebate on par with those offered by neighboring states, especially given modeling that shows reductions in purchase price of EVs are the most effective tool available to accelerate EV deployment.[9]

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[3] New Jersey Board of Public Utilities, Charge Up New Jersey, https://chargeup.njcleanenergy.com/ (last visited Aug. 12, 2020).
[4] Massachusetts Dept. of Energy Resources, MOR-EV: Massachusetts Offers Rebates for Electriv Vehicles, https://mor-ev.org/sites/default/files/docs/MOR-EV_Program_Overview.pdf.
[5] NYSERDA, Drive Clean Rebate for Electric Cars, https://www.nyserda.ny.gov/All-Programs/Programs/Drive-Clean-Rebate/How-it-Works (last visited Aug. 12, 2020).
[6] Vermont Agency of Transportation, Drive Electric Vermont, https://www.driveelectricvt.com/why-go-electric/purchase-incentives, (last visited Aug. 12, 2020).
[7] Efficiency Maine, Electric Vehicle Rebate Eligibility, https://www.efficiencymaine.com/ev/rebate-eligibility/ (last visited Aug. 12, 2020).
[8] Delaware Department of Natural Resources and Environmental Control, The Delaware Clean Vehicle Rebate Program, https://dnrec.alpha.delaware.gov/climate-coastal-energy/clean-transportation/vehicle-rebates/ (last visited Aug. 12, 2020).
[9] Transforming Transportation in New York: Roadmaps to a Transportation Climate Target for 2035, Synapse Energy Economics, September 2019, p. 9.

Respectfully submitted,

Sarah Krame
Associate Attorney
Sierra Club Environmental Law Program
50 F St. NW, 8th Floor
Washington, DC 20001
Tel: (202) 548-4597
Fax: (202) 547-6009

From: Spark Cycleworks
To: DEEP MobileSources
Subject: CHEAPR and Electric Mopeds
Date: Wednesday, August 12, 2020 10:46:58 AM

Dear Deep Team,
I am emailing you in regards to the CHEAPR program. We see that there is a lot of activity in making a rebate possible for electric bikes. This is a great incentive for us to keep our operations in the state and are grateful for this possibility!

However, we have a question today connected to our other product line that we just launched. We are one of the first companies in the USA to offer an electric moped (1.5kw/2hp motor) and are the first to make it legal and get them registered with the DOT for VIN's! Here is a video: https://youtu.be/zWX4iIgIE7o

With that being said, how does the rebate apply to motorcycles and mopeds?

--
Matt Schell
Chief Engineer
Web: sparkcycleworks.com
Phone: (800) 557-9598

From: Stephen Bayley
To: DEEP MobileSources
Subject: CHEAPR Proposal Comments
Date: Wednesday, July 29, 2020 8:19:51 PM

Stephen Bayley
331 Hidden lake Rd.
Higganum, CT 06441
stantz19@yahoo.com
860-205-2403

Question 1: I would not qualify for the Supplemental LMI but I think it is a great idea to encourage lower income people to purchase a more fuel efficient vehicle.

Question 2: I would raise the FCEV rebate to $7,000 as well as the other rebates by $2,000 to incentivize the purchase of a cleaner vehicle. My next vehicle will almost certainly be an electric or fuel cell vehicle so the better the rebate, the easier it will be me to purchasea cleaner vehicle.

Question 3. I would support adding e-bikes and changing the statutes. I have looked into them and they appear to cost about $1,500-$2,000 so a rebate of around $250-$500 seems reasonable. It looks like the statutes simply need to be updated to reflect e-bikes and there current technology. They should have a maximum speed limit, maybe 20mph and should not be allowed on highways, age restrictions, etc.

Thank you.

Steve Bayley

From:	Tony Cherolis
To:	Dykes, Katie; Seagull, Michelle; Jody@Romefast.com; jfleming@ctcar.org; AMcLean@acadiacenter.org; Matt Macunas; Bradley.Hoffman@hoffmanauto.com; DEEP MobileSources; cheapr@energycenter.org
Cc:	Farrell, Paul; Christopher, Lakiesha; Wingfield, Betsey; McMillan, Benjamin; Hackett, Victoria; sarah.lecuivre@hoffmanauto.com
Subject:	RE: CHEAPR Board Meeting Follow-Up on CHEAPR Program Eligibility, Program design and Request for Public Comment (Cherolis written comments)
Date:	Wednesday, July 29, 2020 7:48:20 PM
Attachments:	image001.png image002.png recommendations_CHEAPR_Cherolis_07_29_2020.pdf

Commissioner Dykes and CT CHEAPR Board Members,

Just completed the meeting polls.

Here are my written comments (attached PDF) as a board member for the CT CHEAPR on the recommendations from CT DEEP / CSE. I welcome additional discussion ahead of our upcoming board meetings.

I have an open question as a board member as I try to better understand the CT CHEAPR budget and expenses. That question was captured well here in the EV Club of CT post from July 17th.

- *"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?****"*

We will share the public notice and materials. Thanks for that opportunity to engage and gather public comment.

Anthony Cherolis
Transport Hartford Coordinator
Center for Latino Progress
95 Park Street, 2nd Fl.
Hartford, CT 06106
P. 860.247.3227 x.20
C. 860.204.2704
F. 860.549.5761

From: Grzywinski, Rosalynn <Rosalynn.Grzywinski@ct.gov> **On Behalf Of** Dykes, Katie

Sent: Wednesday, July 29, 2020 2:35 PM
To: Seagull, Michelle <Michelle.Seagull@ct.gov>; Tony Cherolis <tony_cherolis@ctprf.org>; Jody@Romefast.com; jfleming@ctcar.org; AMcLean@acadiacenter.org; Matt Macunas <Matt.Macunas@ctgreenbank.com>; Bradley.Hoffman@hoffmanauto.com
Cc: Farrell, Paul <Paul.Farrell@ct.gov>; Christopher, Lakiesha <Lakiesha.Christopher@ct.gov>; Wingfield, Betsey <Betsey.Wingfield@ct.gov>; McMillan, Benjamin <Benjamin.McMillan@ct.gov>; Hackett, Victoria <Victoria.Hackett@ct.gov>; sarah.lecuivre@hoffmanauto.com
Subject: CHEAPR Board Meeting Follow-Up on CHEAPR Program Eligibility, Program design and Request for Public Comment

Dear Commissioner Seagull, Amy McClean Salls, Tony Cherolis, Jody Ellant, Matt Macunas, Brad Hoffman and Jim Fleming:

Thank you for your active participation in the CHEAPR Board meeting on July 17, 2020. As a follow up to the board meeting, we have posted two documents on the DEEP website. The first attachment is a summary of DEEP's internal statutory analysis governing the program. The second document, entitled CHEAPR Proposal for Public Comment, seeks public comment on several other issues that are central to the scope of the CHEAPR program, including:

- *Whether the CHEAPR program design elements for used EVs are appropriately limited to Low-moderate income (LMI) applicants.*
- *Whether the proposed rebate level for Fuel Cell Electric Vehicles (FCEVs) is appropriate.*
- *Whether DEEP's statutory interpretation regarding the eligibility of electric bicycles under the CHEAPR Program is correct and if so, whether or how electric bicycles should be incentivized.*

The attached documents can also be accessed on DEEP's website at this link.

Written Comments: DEEP has issued a public notice which provides a 14-day period during which comments on the aforementioned documents will be accepted until August 12, 2020. Written comments may submitted directly to DEEP.mobilesources@ct.gov. We will post all comment submitted by stakeholders on the DEEP website.

CHEAPR Board Meeting Scheduling: We are working on scheduling two follow up meetings for the board. The first will be to discuss the comments, and the second will be for the for the Board to discuss and vote on the program design. Please complete both doodle polls provided below to assist staff in scheduling these meetings.

CHEAPR Board Meeting - Statutory References Discussion
https://doodle.com/poll/hy59pugqxz77k7e6

CHEAPR Board Meeting - Program Design Discussion
https://doodle.com/poll/yrtxq2mfq9pfk7ui

If you have any questions please feel free to reach out to Tracy Babbidge at tracy.babbidge@ct.gov

With respect to program design, the program administrator, CSE has proposed the following incentive structure:

New Vehicle Program Design		
Type	**Base Rebate**	**Supplemental LMI Rebate**
Fuel Cell EVs (FCEV)	$5,000 [3]	$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		

1) As mentioned in the Jan 30th meeting and again at the July CHEAPR meeting, I would like to see a single base and supplemental rebate level across all Zero Emission Vehicles regardless of range. If a shorter range, smaller battery, lower curb weight EV works for a consumer, that's great!

   (a) The smaller battery has a lower lifecycle greenhouse gas emission impact.
   (b) A larger rebate for the more affordable, shorter range EV's also increases affordability for moderate income households.
   (c) A higher subsidy for higher range, larger battery vehicles may have the perverse incentive of encouraging more driving and continued, expanding sprawling development patterns. Increased sprawl and vehicle miles traveled chips away at the ghg emissions reduction benefit.

2) I agree with the EV Club of CT recommendation that the MSRP cap should be raised to $50,000. This would capture the longer-range Tesla Model 3's.

3) There are no production FCEV's available for sale in CT. It is misleading to say that this program has rebates up to $5k, if FCEV's aren't in the market and available to consumers.

CHEAPR Board Member: Anthony Cherolis, Transport Hartford Coordinator - Proposes these modifications, 7/29/2020

New Vehicle Program Design		
Type	**Base Rebate**	**Supplemental LMI Rebate**
Fuel Cell EVs (FCEV)	**$1,500** [1]	**$2,000** [1]
All-Battery EVs >200 e-miles (BEV)	$1,500	$2,000
All-Battery EVs <200 e-miles (BEV)	**$1,500** [1]	**$2,000** [1]
Plug-in Hybrid EVs (PHEV)	$500	$1,500
MSRP Cap:	**$50,000** [2]	

With respect to program design, the program administrator, CSE has proposed the following incentive structure:

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	

1) Fuel Cell Vehicles can be in the mix but there is no reason to have a different level of rebate than BEVs. There are no FCEVs being sold in Connecticut, and it is unlikely that they would even be an option for a low to moderate income used car buyer.

CHEAPR Board Member: Anthony Cherolis, Transport Hartford Coordinator - Proposes these modifications, 7/29/2020

Used Vehicle Program Design	
Type	**LMI Rebate**
Fuel Cell EVs (FCEV)	**$2,000** [1]
All-Battery EVs (BEV)	$2,000
Plug-in Hybrid EVs (PHEV)	$750
MSRP Cap: None	

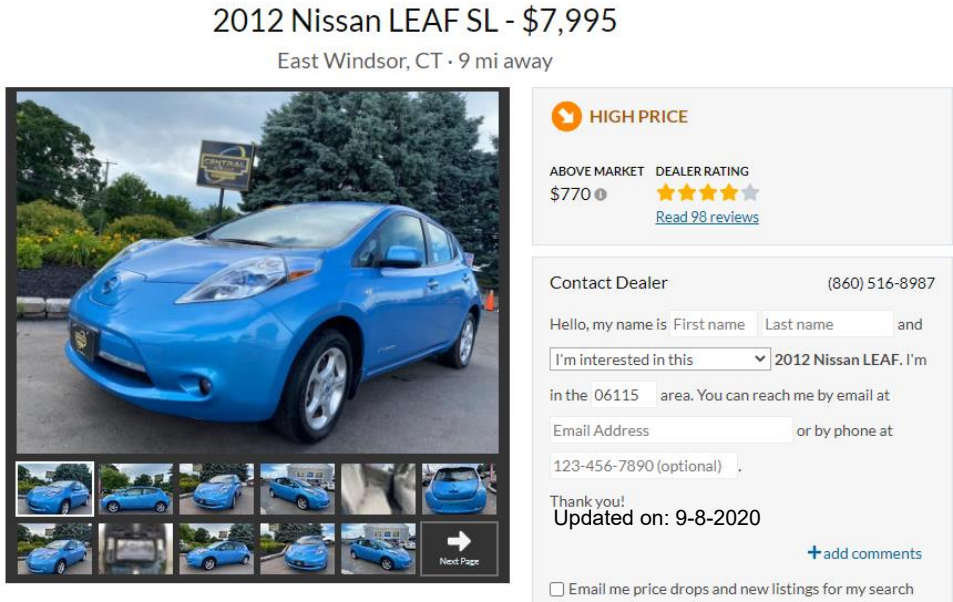
CHEAPR Board Member: Anthony Cherolis, Transport Hartford Coordinator - 7/9/2020

Comments Received on CHEAPR Eligibility and Program Design

Overall comments on access and equity for the CHEAPR Program as proposed:

- **Overall** – The CHEAPR EV Rebate Program, even with proposed LMI rebate levels will not reach low income households or even the median income household in the City of Hartford. **The EV rebate program is structurally inequitable.**
- City of Hartford's median household income is $34,338. I ran some numbers for the annual cost of ownership for the lowest priced used EV that I could find online.
- The lowest cost used EVs that I noted in an online search were Nissan Leaf's. Even at the low end of $8,000 to $12,500 (with a $2,000 LMI EV credit) that used EV is outside the budget of a median-income Hartford household, chewing up 17.4% of the household's income. **The LMI credit should be called a MI (moderate income) credit.**
- The reason that we proposed expanding the rebate program to include e-bikes was partly due to the structural inequity in the program, even with an LMI rebate level. **Fossil fueled motor vehicle replacement with e-bicycles would have the biggest benefit in CT cities where inequitable long-term exposure to motor vehicle air pollution is the most severe.**

Example - Used 2012 Nissan Leaf, total cost of ownership		
Purchase price = $6,000 after $2,000 LMI used EV Rebate		
Assuming 10k miles driven / yr	**Cost per year**	**Assumptions**
Full year financing	$1,812	9.5% rate, used car loan term 48 months
Maintenance	$660	6.6 cents / mile (AAA)
Registration and licensing	$123	From CT DMV estimate
Taxes	$360	Hartford has a 45 mill rate for motor vehicles
Insurance	$2,664	06106 Hartford zip code avg, 30 y/o male (CT avg is $1,771)
Electricity/charging	$365	3.65 cents / mile (AAA)
Total cost of car ownership	**$5,984**	
Hartford median household income	$34,338	
% of Household	17.4%	
Recommended % for transportation	15.0%	



The listed commenters submitted identical comments as exemplified by Ashley Seaward submission below. The comments were received after the comment period

Nicolas Hage
Scott Byrne
Keith Nappi
Stephen Extance
Chris LeBlanc
Nicholas Rajcula
Adam Briere
Sofia Whitcombe
Julie LaValla
David Campbell
Daniel Janavey
Brandon Fravel
Kenneth Ayoub
Zachary Olsen
Andy Varrone
Stephen Horvath
Jonathan Geran
Greg Jakubek
Jordan Lynn
Phil Capezio
David Britt-Friedman
Joe Wignall
Gina Tufano
Harrison Leavens
Tom Heng
Douglas Wolfe
E Smith
Carol Nardini
Hannes Grascher
Valerie Gilson
Erik Lyon
Tom O'Brien
Greg Pompea
Burton Avery
Ciara Remerscheid
Jennifer Kalotai
Matt McCaffrey
Daniel Wenzel Mendes
Barry Rahmy
Ron East
Thomas Noonan
Michael Mullaly
Michel Poulin
Paul Wotzak
Barry Black
Rebecca Sellet
Stephen Monick
Matthew Schell
Louis Forgione
Geoffrey Detrani
Greg Ledovsky
Robert Koshar
Jeremy Mikesell
Kathryn Hastings
Rebecca Nash
Charles Christie
Gian Andrea Morresi

From: Ashley Seaward <ashley@peopleforbikes.org>
Sent: Tuesday, August 18, 2020 1:22 PM
To: DEEP MobileSources <DEEP.MobileSources@ct.gov>
Subject: Public Comment on CT CHEAPR EV rebate changes

CT DEEP and CHEAPR Board Members,

I encourage the CT CHEAPR program to expand the Zero Emission Vehicle rebate program to e-bikes with a pilot program starting in the first quarter of 2021.

I support the creation of an e-bike rebate for these reasons:

1. Even with an electric vehicle (EV) rebate, the ownership and maintenance of a vehicle is still too costly for many low-income households in CT. An e-bike rebate would bridge the financial gap to purchase and does not carry the financial responsibility of a car.
2. E-bikes allow me to get outside while maintaining social distancing. A rebate would make it easier for me to purchase an e-bike and maintain a healthy lifestyle during the global pandemic.
3. To help protect the health of my family and friends, I want to reduce the level of greenhouse gases that are present in CT. E-bikes are more effective at reducing lifecycle greenhouse gas emissions than EV cars.

Thank you for considering this public comment.

Ashley Seaward
Regulatory & Policy Analyst
PeopleForBikes Coalition
P.O. Box 2359 / Boulder, CO 80306
EMAIL: ashley@peopleforbikes.org
PHONE: 720. 648. 8376
PeopleForBikes.org

From: Kevin Sullivan <ksullivan12@snet.net>
Sent: Tuesday, August 18, 2020 9:55 PM
To: Farrell, Paul <Paul.Farrell@ct.gov>
Subject: Support Expansion of CHEAPR EV Rebates to include E-Bikes

Dear Mr. Farrell,

Please accept the attached letter which presents my strong support for expanding the CHEAPR EV rebates to include e-bikes.

Best regards,

Kevin T. Sullivan
Co-Founder, Bike Walk Wethersfield
79 Wright Rd
Wethersfield, CT 06109
Ksullivan12@snet.net or 860-690-4576

Bike Walk Wethersfield

Supporting all safe and healthy bicycling and pedestrian activities in our community!

August 18, 2020

Governor's Council on Climate Change
Connecticut's Legislative Transportation Committee
Katie Dykes, Commissioner, Connecticut Department of Energy and Environmental Protection
Matt Macunas, Associate Director of Transportation Initiatives, Connecticut Green Bank

Dear Governor's Council on Climate Change, Legislative Transportation Committee, Commissioner Dykes and Associate Director Macunas,

On behalf of Bike Walk Wethersfield, I am writing to strongly support expanding Connecticut's electric vehicle rebate program to include electric bicycles. The goal of Bike Walk Wethersfield is to support all safe and healthy bicycling and walking activities in our community.

E-bikes are a rapidly expanding and low-cost opportunity to get more people on bicycles and be a part of the climate change solution. We should be trying to find ways to include e-bikes in programs like the EV rebate program

If e-bikes are truly not allowed under the applicable definitions of our laws to be part of the rebate program, then I believe we should work to amend the law.

However, everything I know about bicycling is that bicycles are vehicles in Connecticut. I have been riding my bike to work for 30 years in Connecticut, am a long-time bike-ped advocate and have been teaching people for years as a League Cycling Instructor. Never have I heard or read any policy or law that bicycles are not vehicles.

I strongly recommend that e-bikes be included in the EV rebate program, and the interpretation of bicycles as vehicles be reconsidered.

There are SO many benefits to every time we displace a motorized vehicle with a bicycle or e-bike: improved environment, health, welfare and equity. I believe the only sustainable path is to promote solutions like rebates for e-bikes.

Best regards,

Kevin T. Sullivan

Kevin T. Sullivan
Co-Founder, Bike Walk Wethersfield
League Cycling Instructor, League of American Bicyclists
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From: Chris Nevers <cnevers@rivian.com>
Sent: Friday, September 4, 2020 3:43 PM
To: cheapr@energycenter.org
Cc: Farrell, Paul <Paul.Farrell@ct.gov>; Kaitlin Monaghan <kmonaghan@rivian.com>
Subject: Rivian Comments to the CHEAPR Program

Good Afternoon,

Rivian respectfully submits the attached comments to the recent request for comments.

If you're not familiar with Rivian, we are an independent U.S. manufacturer of all electric trucks and SUVs. Founded in 2009, we revealed our new line of production ready products in November of 2018, and will begin delivery in 2021. We also completed a deal to provide Amazon with 100,000 all electric delivery vans by 2030. Our factory (the former Mitsubishi plant in Normal Illinois) is being rehabilitated for production with vehicles to be produced at the end of this year. You can find more information at http://www.rivian.com.

Please let us know if you have any questions.

Best Regards,

Chris Nevers
Director, Environmental Engineering & Policy

P: E: cnevers@rivian.com
13250 N Haggerty Rd Plymouth, MI 48170

RIVIAN

September 04, 2020

ELECTRONIC MAIL TO: DEEP.mobilesources@ct.gov

Commissioner Katie Dykes
Deputy Commissioner Vickie Hackett
CT Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106

Subject: Comment to Connecticut Hydrogen and Electric Automobile Purchase Rebate Program

Dear Commissioner Dykes and Deputy Commissioner Hackett:

Rivian Automotive, LLC, ("Rivian" or the "Company") respectfully submits these comments in response to Connecticut Department of Energy and Environmental Protection's ("DEEP") opportunity to comment on proposed modifications to the Connecticut Hydrogen and Electric Automobile Purchase Rebate ("CHEAPR") program. Rivian hopes to be part of Connecticut's continued leadership in developing programs to advance electric vehicle adoption to achieve clean air and climate goals.

Founded in 2009, Rivian is an independent U.S. company dedicated to the production and distribution of all Electric Adventure Vehicles™ – namely pickup trucks and SUVs. These zero emission vehicles encourage consumers to enjoy the outdoors and seek adventure in environmentally friendly ways. In addition, we also have a commitment with our investment partner, Amazon, to develop and produce 100,000 all electric heavy-duty class 2b and 3 trucks by 2030 for last mile delivery (named the "RPV"). With a substantial presence in Michigan and California, and a manufacturing facility in Normal, IL, the R1T pickup truck, R1S SUV, and RPV delivery van will go into production in 2021.

Rivian's line up of vehicles supports our mission to *Keep The World Adventurous Forever*™, by offering compelling all-electric alternatives to polluting, incumbent, internal combustion engine technology. Rivian believes that environmental sustainability can only be reached with the electrification of all motor vehicle transportation sectors – including heavy-duty trucks. As a heavy-duty truck, the Rivian RPV delivery van will displace stop-and-go operation of high emission diesel and gasoline powered vehicles typically operated in higher density population areas, which disproportionately affect at-risk communities. On average, each RPV delivery van will displace the emissions equivalent to 8.7 gasoline powered passenger cars. Rivian vehicles can help Connecticut meet its environmental goals together with state initiatives such as electric vehicle rebates, sales requirements and regional policies such as for low-carbon transportation efforts including the Transportation Climate Initiative.

Rivian's plans

As noted above, Rivian will be begin delivering its first pickup truck (R1T), full-sized sport utility vehicle (R1S) and last-mile heavy duty delivery van in 2021. These vehicles will be among the first of their respective segments, with higher sales volumes than so-called "compliance" vehicles produced solely to meet regulatory minimums. As evidence of this, Rivian has attracted a large number of vehicle preorders across the entire U.S with a vast majority of Rivian's preorder customers having never owned an EV. Rivian's electric vehicle expansion into new segments and first time EV buyers is due, in part, to the compelling capabilities offered by Rivian's pickup truck and SUV, several of which exceed the capabilities of their petroleum-powered counterparts.

I. **Rivian's response to question 1:** Comment on the CHEAPR program design element of limiting incentives for used EVs to Low-Moderate Income (LMI) applicants.

Rebate programs such as CHEAPR are part of a supporting network of policies needed to meet ZEV requirements and achieve state greenhouse gas ("GHG") and pollution reduction goals. The addition of used electric vehicles into the CHEAPR program is a significant modification to the original program that will allow more low- and moderate-income households to take advantage of the program by replacing conventional pickup trucks and SUVs that normally cost more than new passenger cars. Used vehicles can often be purchased for a fraction of the original manufacturer's price. This is especially important when trying to replace the utility of a conventional pickup truck or the passenger capacity of a 7-passenger SUV. Eliminating or raising income caps for more capable market segments will create a more inclusive and attractive used EV market, especially when compared to other states. As a result, Rivian recommends that used EV rebates not be subject to income caps. Alternatively, (and not as attractive an option) Connecticut could allow higher income caps for pickup-trucks and SUVs versus passenger cars, as the latter category of vehicles offer less utility and are less likely to be used as primary household or work vehicles.

Elimination of income caps is especially applicable to pick up trucks and SUVs as families purchasing these vehicles are seeking to meet specific needs – such as moving property, equipment or regularly transporting larger families. Imposing income caps on these types of families does not reduce their need but, instead, only drives sales and use of higher polluting and cheaper petroleum powered vehicles. This disincentive negates benefits that the state would otherwise achieve through promotion of used zero emission all-electric vehicles. As elaborated further below, these reasons also drive another issue that should be re-examined – specifically, MSRP caps on EV rebates.

II. DEEP should reexamine new EV rebate MSRP caps

In conjunction with expanding rebate eligibility to used electric vehicles without income caps, DEEP should reevaluate the "one-size fits all" new MSRP rebate caps. When reexamining MSRP caps, DEEP should consider that all electric pickup trucks and SUVs displace more emissions than passenger EVs by replacing conventional trucks and SUVs. Such vehicles are typically primary household vehicles given their greater utility and carrying capacity. In fact, these features have resulted in the growth of these segments as compared to passenger cars. Pickup trucks and SUVs now comprise well over half of all new vehicle sales in the United States today. Encouraging zero emission alternatives like Rivian pickup trucks and SUVs, which have expanded capabilities like passenger and towing capacity, are desperately needed if Connecticut hopes to meet is pollution reduction goals. Yet the MSRP cap would discourage consideration of such sales – especially given the fact that even the petroleum powered versions of these vehicles are generally more costly than passenger cars. An MSRP cap merely drives Connecticut families away from EVs and towards their petroleum powered counterparts. Each of the foregoing arguments is expanded in further detail below.

A. MSRP Caps Do Not Take Into Account Comparable Vehicles

As stated in CHEAPR's request for comment: "[a]n initial goal of the CHEAPR program was to achieve price parity between EVs and ICE vehicles until the market reached price parity on its own." The intention of the rebate is not being fully realized because the MSRP cap effectively excludes pickup trucks and large SUVs because of higher segment price points. Specifically, for 2019, JD Power placed the average sticker price of petroleum powered pickup trucks in excess of $50,000. This cost represents a $30,000 increase over the cost of the average compact car and a $24,000 increase over the average midsized car (where current EV offerings exist). Attempting to apply a blanket MSRP cap on electric pickup trucks and SUVs without considering the class of vehicles involved only exacerbates the price parity gap between these more capable classes of EVs and their respective ICE vehicles. DEEP should reexamine MSRP EV rebate caps on pickups and SUVs based on cost differences in similarly equipped ICE segments versus simply applying the blunt instrument of a one-size-fits all MSRP cap. Such an approach is not reflective of real-world pricing of these larger and more capable vehicles.

B. Incentivizing a New EV Segment

Nationally, sedans represented only 22.1 percent of U.S. auto sales in 2019, whereas the light-truck segment that includes SUVs, vans and pickups to make up 72 percent of

sales[1]. In Connecticut, a sedan did not make the list of the top five vehicle makes and models sold in the state in 2019. Instead, a majority of Connecticut residents are choosing to purchase pickup trucks and SUVs because they require or desire the features and capabilities of these larger vehicles. With features like an electric motor at each wheel, up to 400 miles of range on a single charge, 0-60mph times of 3.0 seconds, the ability to tow up to 11,000 pounds (R1T), and room for a family of seven (RIS), the Rivian R1 all-electric vehicles will introduce a new class of EVs to the market that will fill the needs of many consumers. Although consumers are willing to pay more for pickup trucks and large SUVs that suit their needs, they are also price sensitive and would responds to incentives. The use of incentives in the truck segment is evident in the well-publicized "pickup truck wars" between completing truck manufacturers[2]. DEEP should reexamine the MSRP cap on new pickup trucks and large SUVs to motivate price-sensitive owners of gasoline and diesel-powered SUV and pickup trucks to purchase an electric alternative.

C. EV Trucks Displace More Emissions Than EV Passenger Cars

Incentivizing the new segments of all electric pickup trucks and SUVs to meet emission reduction goals is sound policy. Rivian's R1T and R1S, as well as larger EVs announced by other manufactures, will displace more GHGs and traditional pollutants from higher emitting petroleum powered pickup trucks and SUVs versus smaller EVs purchased to replace comparably sized compact and mid-size passenger cars (including small SUVs built on car platforms). These additional GHG and emission reduction benefits should be considered when applying electrification incentives. For example, an average gasoline powered pickup emits about 63% more CO_2 than an average compact or mid-sized passenger car. For 2019, EPA projected pickup trucks would on average emit 466 grams of CO_2 per mile compared to 286 grams for cars.[3][4] Incentivizing pickup trucks and full-sized SUVs like Rivian's vehicles would supplant greater GHG emissions from these larger sized vehicle segments.

In addition to the general emissions profile, more capable EVs also have a greater chance of being driven the greater distances needed to offset more gasoline and diesel emissions than smaller EVs. Based on pre-order demographics, Rivian expects the R1T and R1S to be the primary household vehicle for those customers. Whereas some

[1] Tom Voelk, *Rise of S.U.V.s: Leaving Cars in Their Dust, With No Signs of Slowing*, N.Y TIMES, May 21. 2020, https://www.nytimes.com/2020/05/21/business/suv-sales-best-sellers.html#:~:text=%E2%80%9CS.U.V.s%20made%20up%2047.4%20percent,was%20not%20so%20long%20ago.

[2] Matt DeLorenzo, This Week in Car Buying: Pickup Truck Wars, Kelly Blue Book, February 15, 2019 https://www.kbb.com/car-news/this-week-in-car-buying-pickup-truck-wars/

[3] EPA Trends Report 2019, U.S. Environmental Protection Agency, https://www.epa.gov/automotive-trends/download-automotive-trends-report#.

[4] Note that these averages include a small percentage of electric vehicles plus pickup trucks and truck SUVs that are not nearly as capable as the R1T and R1S.

smaller and less expensive electric cars might be seen as "compliance" vehicles that are sometimes used as secondary vehicles in a household fleet, the R1T and R1S are not likely to become a secondary or optional vehicle that is not driven enough to realize criteria and GHG benefits. Although not quantified here, the potential vehicle-miles traveled related benefits of a household's primary vehicle should also be considered as income or MSRP caps are revaluated for electric pickup trucks and SUVs.

D. Connecticut GHG and air quality needs

GHG emissions from the transportation sector make up nearly 40% of Connecticut's total GHG emissions. The state has committed to reducing GHG emissions from the transportation sector to achieve economy-wide targets of at least 45 percent below 2001 levels by 2030, and 80 percent below 2001 levels by 2050. In terms of air quality, despite significant progress in decreasing pollution, all of Connecticut's counties are listed as earning F's in the American Lung Association's Clean Air report card.[5] The benefits of EV's are clearly needed everywhere in Connecticut. To maximize EV penetration and further Connecticut's clean air and GHG goals, Rivian proposes that the MSRP cap be reevaluated. This would allow substantial gains in the penetration of larger all electric pickup trucks and SUVs, thus displacing the higher emitting vehicles.

III. Conclusion

Rivian respectfully encourages DEEP to consider the addition of used electric vehicles into the CHEAPR program without income caps. Additionally, the used EV rebate impacts should be considered holistically with other CHEAPR provisions, particularly the MSRP rebate cap. These steps will directly support proliferation of larger zero emission vehicles that will directly offset greater emissions than passenger cars, displace households utilizing petroleum powered pickup trucks and SUVs as primary vehicles, and expand electrification into segments to first time EV buyers. All of the foregoing is necessary to meet Connecticut's pollution reduction goals. Moreover, reexamination of MSRP caps would correct the fact that higher priced pickup trucks and SUVS were apparently not contemplated when rebates were first enacted. MSRP and income caps should not be blunt instruments that only impeded the electrification of segments dominated by high polluting, high emitting pickup trucks and SUVs. Incentives to encourage electric vehicle purchases, such as rebates and tax credits, should not be constrained to the least capable vehicles with the lowest relative environmental impact. To this end, MSRP and income caps on incentives, while well intended, could serve to harm EV penetration and slow progress on emission reductions.

[5] Full Report State of the Air (Report Card: Connecticut), American Lung Association, http://www.stateoftheair.org/city-rankings/states/connecticut/.

Regardless of who purchases the more capable and expensive new electric trucks and SUVs, the CO_2 benefits will be felt globally, all of Connecticut needs cleaner air, and electric trucks and full-size SUVs are needed in the used vehicle market. The real challenge with more capable pickup trucks and full-sized SUVs is getting them in the market as soon as possible to maximize the environmental impact and availability as market conditions and incentives allow. For these reasons, Rivian is recommending no income cap on used vehicles and that the Board reconsider the applicability of new electric vehicle MSRP rebate caps on electric pickups and full-size SUVs.

Rivian looks forward to working with DEEP and the State of Connecticut on decreasing transportation pollution. Please contact us if you have any questions with our comments or our vehicles and plans.

Sincerely,

Chris Nevers, Director of Environmental Engineering and Policy