



**Collected Responses to DEEP E-Bike Incentive Program
Request for Information
8-18-2022**

This document is a compilation of all comments received by DEEP during the RFI period which closed on July 27, 2022 regarding Connecticut's E-Bike Incentive Program.

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

From: [Ashley Seaward](#)
To: [DEEP MobileSources](#)
Subject: Response to E-Bike Request for Information
Date: Wednesday, July 27, 2022 4:54:35 PM
Attachments: [CTDEEP_RFI_ElectricBicycleIncentive.pdf](#)

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Greetings members of DEEP,

Please see the attached document in response to the request for information regarding Connecticut's new electric bicycle incentive program. We appreciate the opportunity to comment and welcome the opportunity to provide any further information.

Thank you for your time.

Ashley Seaward

Deputy Director of State + Local Policy
(she/hers)

PeopleForBikes Coalition

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July 27, 2022

Connecticut Department of Energy and Environmental Protection (DEEP)
Connecticut Hydrogen and Electric Automobile Purchase Rebate – Electric Bicycle Incentive Program

RE: *Response to E-Bike Request for Information*

Greetings DEEP members,

On behalf of PeopleForBikes, I am writing in response to the request for information regarding Connecticut's new electric bicycle incentive program. We applaud the creation of this program and seek to partner and provide advice where appropriate. PeopleForBikes is a national bicycling advocacy organization. We represent over 300 supplier members, 1,100 Ride Spot retailer members and 1.4 million supporters in our grassroots network. Please see our comments regarding the program's development below.

- **E-bike applicability**

- *Include all forms of electric bicycles within the three-class system.* Please consider including all forms (leisure, e-cargo, eMTBs) of electric bicycles as they can further incentivize healthy and carbon-free forms of recreation and transportation. Connecticut adopted the three-class system of electric bicycles in 2018 ([Public Act No. 18-165](#)). These classes include:

- "Class 1 electric bicycle" means an electric bicycle equipped with a motor that engages only when the rider operates the electric bicycle's foot pedals, and disengages when the rider stops pedaling or such electric bicycle reaches the speed of twenty miles per hour.
- "Class 2 electric bicycle" means an electric bicycle equipped with a motor that may be used exclusively to propel the electric bicycle, and disengages when the brakes are applied or such electric bicycle reaches the speed of twenty miles per hour.
- "Class 3 electric bicycle" means an electric bicycle equipped with a motor that engages only when the rider operates the electric bicycle's foot pedals, and disengages when the rider stops pedaling or such electric bicycle reaches the speed of twenty-eight miles per hour.

- **E-Bike retailer selection and inclusion**

- *Include in-store and online retailers.* Including both in-store and online retailers allows program participants to choose from the widest range of bikes for their needs.
- *Work with retailers as you develop the program.* This could be done through a specific retailer listening session. A collaborative approach with retailers will aid in the success of the program.
- *Consider asking retailers to register for the program.* Asking retailers to register to become participants of your electric bicycle incentive program gives you a contact at each retailer shop and greater oversight of the electric bicycles that are purchased.

- **Determining air quality benefits from program**

- *Consider using an application (app) to ask participants to voluntarily track their rides. Other states have used apps to track rider data to get the carbon displacement metrics. Do not make the use of an app mandatory but rather incentivize it through rewards. This data will help measure the success of the program. A similar initiative was done in Colorado, the report of which can be found [here](#).*
- **Electric bicycle incentive levels**
 - *Prioritize applications for Environmental Justice, low-income or other eligible communities. We believe that the intention of this bill was to prioritize these user groups as they may benefit the most from an electric bicycle purchase incentive program.*
- **Connect with local nonprofits to assist in marketing**
 - *Partner with local non-profits already serving low-income communities to market and deploy the incentive. These groups can engage and educate their constituencies about rider safety, charging, and more. They can help make sure that folks get the incentives who are eligible and will use them to replace car trips. Plus, they can support any paperwork needed from applicants. We would recommend starting with the Center for Latino Progress, who was instrumental in passing the legislation that enabled this funding.*

Thank you again for the opportunity to comment. I welcome the opportunity to provide any further information and appreciate the chance to share our resources and knowledge.

Sincerely,



Ashley Seaward
Deputy Director of State + Local Policy
PeopleForBikes Coalition

From: [Chris D'Antonio](#)
To: [DEEP MobileSources](#)
Subject: Response to E-Bike Request for Information
Date: Sunday, July 24, 2022 11:42:43 PM

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Hi,

I've never shopped for an ebike before and while I have great experience with regular bikes, I am hardly an expert in ebikes either.

That said, I want to share my comment that this program should be made as equitable as possible and a key feature of that is to be as easy to use as possible. That means don't make consumers jump through hoops or be required to complete much paperwork, etc. Ideally, they shouldn't even need to apply for this program and they certainly should not have to submit for post-purchase rebate (for purchasing locally at least).

The most ideal way I envision this is by focusing the program's logistics on bike shops in state. Run all the paperwork and such through all bike shops that sell ebikes - let the experts in running businesses coordinate with CHEAPR to get the rebate/reimbursement so consumers looking to buy an ebike in this program don't need to do anything besides providing the necessary info to the bike shop to submit and then they should get the discount taken right off the top of the price. This means that an interested consumer can walk in and out of a bike shop in one day with a new ebike if they like.

Forcing consumers - especially lower income folks looking for a vehicle replacement - to spend \$500+ dollars AND figure out how to submit all the necessary paperwork to get their credit is a terrible experience and not at all respectful of how important \$500+ dollars is to many families - not everybody can afford to drop \$500 extra now just to save that amount weeks later.

Besides that, the program should also be able to work with online ebike retailers as well, since many are exclusive to online and not carried by bike shops. This is important for equity as well because it gives consumers the options they need to maximize their value.

Understandably though, I don't think there's any need to figure out how to make this program work for online purchases via any other means besides a post-purchase rebate. It's not ideal, but it's too hard logistically to coordinate with so many online retailers.

Thanks,
Chris D'Antonio, Enfield

From: [Dante A. Pace](#)
To: [DEEP MobileSources](#)
Subject: Response to E-Bike Request for Information
Date: Wednesday, July 27, 2022 11:26:18 PM

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Apologies for the late submission, but here is my submission for the RFI.

I figured that this was probably not directly aimed towards individuals who want to talk about E-bikes, but I figured I'd voice my opinion anyway.

Sorry ahead of time if this is longer than necessary, but I felt like this was the appropriate means to express opinions about this topic.

And sorry if the formatting looks weird. Apparently Gmail and OpenOffice don't like to get along.

1.

1. What are the best practices from other E-bike incentive programs? Including, but not limited to:

a. Application Processes

- There shouldn't be an application process directed towards customers. The easiest and most efficient means of providing an incentive program would be for DEEP to work directly with E-bike retailers or manufacturers to provide rebates or vouchers.
- The rebate/voucher going directly to the retailers or manufacturers gives DEEP the ability to influence the overall sales price of E-bikes.
- If consumers have a problem with the rebates/vouchers, they have DEEP as a singular point of contact to resolve their issues. This can be done online or in print if necessary.

b. E-bike Applicability

- The incentive should be applied directly to the price of the bike and nothing else.
- No E-bike should be exempt from the incentive. If prices go down, the incentive program should reflect this by also decreasing in value.
- There should be a state registry of E-bikes that is optional to sign up for.
- All E-bikes on this registry should be provided free yearly check-ups. Tune-ups will be at the cost of the consumer.
- Check-ups are not required, but will only be free once a year.
- All third-party modifications will not void this agreement, but will not be covered by the registry.
- If hybrid gas-electric technology has any sort of breakthrough in the near future, or if a combustion engine bicycle reaches consistent triple-digit

gas mileage, there could be an opportunity to include such vehicles under the incentive programs.

- For gas or hybrid bikes, there should be strict emission requirements, as these types of engines can have significantly worse emissions per gallon than the larger ones found in commercial cars.
- The emissions should be tested regularly, similar to most cars, and testing should be done at certified emissions testing facilities. Bicycle retail/repair shops should become certified for this emissions testing, regardless of their status as an E-bike retailer.

c. E-bike retailer selection and inclusion

- All E-bike retailers should be allowed to take part of this incentive program.
- There should be a means to allow low-end retailers to partake in this incentive program in a way that can attract consumers at equal rates to high-end retailers.
- This means should avoid having the low-end retailers from being shrugged off in favor of getting “better deals” at the high-end retailers.

d. Opt-in for customers to authorize contact by E-bike vendors

- This is confusing; as a consumer, I don't want to be solicited in an intrusive way, especially with phone calls.
- If a consumer has yet to purchase an E-bike, then DEEP should be solely responsible for soliciting new consumers, preferably via mail.
- If the consumer wishes to get further information, they should be able to request more information, either by subscribing to an email list, or by getting information from a local bicycle retailer.
- The optional state registry should have an option to include an email address. More organically targeted solicitation.

e. E-bike incentive levels

- This seems like a stupid concept at face. What does this even mean?
- If you mean the purchase of the E-bike, then the rebate/voucher is sufficient.
- If you mean getting people to actually ride the E-bike, this is a major infrastructure problem that spans decades. I don't think this section is where this discussion belongs.

f. LMI incentive levels

- People can provide their last paycheck to verify their income.
- I don't think there should be a two tier incentive program.
- If the bikes are not affordable after the rebate/voucher, then the problem is supply-side. No person should be priced out of an E-bike under this program. Those with more income simply have the choice to go for higher end models.

I'm serious, if they make too little money, this bike should effectively be free.

- "But what if they cheat the system and keep getting free E-bikes to resell?" If the system is not robust enough to stop this, then that's what we deserve.
- "But that money is tax payer money!" Then it's the state government's fault. Consumers aren't in charge of the system.

g. Participant surveys

- Not sure what this means; is this for after they get an E-bike?
- You can offer follow-up incentives, small things like bike accessories or smaller vouchers towards any accessory of choice.

2. How should DEEP determine the air quality benefit from program participation?

- a. If there was a scale from 0 to 10, 10 being the worst-case scenario for emissions created by bicycle manufacturing, using an 8 would be the smart thing to do. Always lean heavy on the worst-case scenario, but never fully. It is almost never as bad as it could be.
- b. For future air quality estimations without any action, assume the same vehicles that are on the road now will not change in volume after 10 years.
- c. Potential consumers can be queried as to how they would plan on using an E-bike. I use it primarily to go to work, get groceries, and go to my gym. Each of those is within 6 miles, so on average I travel about 12 miles a day.
- d. A simple calculation of how much energy is used between cars and E-bikes is also doable. For my personal commute, I used 1.5L a day of gasoline, which equates to 52MJ of energy. Compare this to my 500W E-bike running at full power for 25 minutes, which is only 750KJ. If we assume that electricity generation using coal operates at an efficiency of 33%, that means it still only uses 2.25MJ a day. Professionals who are better at these estimations can provide much better numbers than I can.
- e. The overall theme to these calculations should show that cars burn up so much fuel just to move the 2-ton car itself, while E-bikes only use their charge to move you and the 30 lbs. bike.

3.

1. How many manufacturers produce E-bikes with a base MSRP of \$3,000 or less? Please include contact information, if available

- a. Is this a joke? There are literally dozens of E-bike manufacturers that provide these.
- b. Hurley, Surfas, Pedego, Trek, Aventon, Rad Power, Lectric, Cannondale are the common ones I know of.
- c. There are other higher end ones: Santa Cruz, Alien Rides, Juiced Bikes. These are probably not the ones you want to target though.
- d. Juiced Bikes are moped-style, but under \$3,000. These would be for "long range commutes," which I would define as 10+ miles.
- e. My current E-bike, a Surfas Edart 500W, takes me to work, 6 miles away, in under 20 minutes. It only cost \$1,900.

4.

1. How many E-bike retailers are there in Connecticut? Please include contact information, if available.

- a. Honestly, more than you would think, but not as many as I would hope. Most bicycle retailers have a small selection of E-bikes.

- b. The larger retailers have a pretty good selection. Bloomfield Bicycles has a pretty large collection. New Canaan Bicycles is good too.
5. How many E-bike retailers are there in Connecticut? Please include contact information, if available.
 1. I don't think this question is meant for an individual.
6. What is the industry standard E-bike warranty?
 - a. The warranties are usually on the batteries. These range from 1 to 3 years.
 - b. Bosch has a 2-year warranty on all components of their bike.
 - c. As far as a standard, it varies quite a bit between manufacturers.
7. What is the best industry E-bike warranty?
 - a. Not sure what the best one is, but Pedego has a 5-year warranty on their bikes and components. They also have a prorated credit system to buy batteries cheaper after 3 years.
8. What other E-bike customer experiences should DEEP consider?
 - a. Return Policy
 - i. I returned an E-bike to the retailer I purchased from and received store credit for a model better suited to my needs. There was a 5-day return policy for full refund. After that, I could only return for store credit, and they charged me a dollar per mile.
 - ii. I believe DEEP should sponsor a 30-day return policy with a full refund. The dollar per mile fee should be removed.
 - iii. If a replacement is needed, one free replacement per year should be available.
 - iv. If more replacements are needed within a year of the original purchase, the price will be the out-of-pocket cost of the first E-bike + half the voucher/rebate.
 - v. If an exchange is needed, the full price for the E-bike should be credited towards the new E-bike within one year of purchasing the former.
 - vi. The goal of the policy is to give the consumer confidence that, with proper care and maintenance, they will always have an E-bike available to them, and if accidents occur, they will have low-cost options to get back on the wheels.
 - b. Battery Re-Use and Recycling
 - i. When purchasing a new battery, the battery should be significantly discounted if the consumer returns the previous battery.
 - ii. At most, if the consumer wishes to buy the same model battery, there should be a 50% discount given to the consumer. This discount should be provided as a coupon of some sort by DEEP.
 - iii. Batteries to be recycled should be held by the retailers and distributed to appropriate recycling companies.
 - c. E-Bike Usage
 - i. No one wants to ride a bicycle on car-infested streets. Implement infrastructure changes that eliminate the need for cars in large urban environments.
 1. Mixed Commercial/Residential zoning
 - a. Provide people areas where they can travel to relatively easily on bicycle/E-bike.
 - b. This does not need to be high density, but dense enough that it disincentivizes car traffic. For example, I take less than 20 minutes to bike to work. Down the street from where I live there is mixed commercial residential. The parking is atrocious.
 - c. Remove car parking minimum requirements for new developments. There are hundreds of people in downtown Shelton that are only a mile away from Big Y.
 - d. If needed, mark bicycle lanes on the street.
 - e. Less cars on the road, and the Stop & Shop isn't a 20-minute drive away? Sure, I'll take my E-bike to get my groceries!
 2. Bicycle Infrastructure
 - a. Zoning changes must be coupled with infrastructure to support E-bike usage.

- b. Bicycle Lanes, Bicycle Only Roads
 - c. Off-street parking options for those unfortunate enough to need a car
 - d. Slower speed limits
 - e. Bicycle Parking
 - f. Bicycle Parking!
 - g. Certain bikes have streamlined designs, meaning they must be charged by plugging into the frame. Free E-bike parking spots?
3. Businesses
- a. Just because you up-zone doesn't mean people want to go to the new businesses.
 - b. If you bring businesses in to mixed use areas, they better be worthwhile.
 - c. Making districts are always fun (e.g., food district, fashion, business)
 - d. If the city makes a visit worthwhile, it should make living there even better.
8. How often are E-bike purchases financed?
- a. I wouldn't know. I am lucky enough to have the cash reserves to buy one outright. I don't believe they should be financed; if you must finance an E-bike, there is something wrong.
 - b. I believe Bloomfield Bicycle offered 12-month interest-free financing. That's pretty good considering the average E-bike cost they had was ~\$1,500 (\$125 a month).
 - c. There are plenty of insurance policies that cover E-bikes as personal property while at home, but I can't think of policies that even cover Class 3 E-bikes. The policies shouldn't be that expensive, considering how low-cost E-bikes are to maintain or replace, relative to cars. Injury coverage should be higher priority.
9. How should DEEP define "maximum income eligibility" for e-bikes?
- a. They shouldn't.
 - b. What is the point of this voucher program? To "give E-bikes to poor people" or to get more people to use E-bikes?
 - c. If you define this, then you will create a system where people are going to miss out just because they got a small raise or started a better paying job.
 - d. "But there are people who don't need a voucher!"
 - i. Who cares? I don't. LMI people don't.
 - e. "But that is taxpayer money!"
 - i. Good, I'm paying for more people to not drive cars.
 - ii. I really don't care, just get them out of the cars.
 - iii. Rich people drive more often anyway, so they should be considered prime consumer base. They will probably buy the more expensive models anyway.
11. Should DEEP seek to protect LMI participants from unfair or abusive finance terms? If so, how should DEEP do this?
- a. Ok, weird to put this under the scope of protecting LMI participants.
 - i. I'm serious. I'm all about the state providing a helping hand to those who need it, but this entire RFI seems to have been developed around the idea that E-bike incentives need to go out to the lower income residents, or EJ residents, as top priority, instead of getting as many people on E-bikes as possible as priority.
 - ii. I do appreciate the idea that the voucher is only valid up to a certain price point, but I think it should be a scaling voucher/rebate that caps at bikes that cost \$3,000 or more.
 - b. Why not protect everyone from this?
 - c. Make the vouchers only valid if the retailer offers 12/24-month interest free financing options.
11. If DEEP utilizes a voucher program, what length of time should be selected for the voucher expiration date?
- a. I think 9 months is sufficient.
 - b. If you get it during fall or winter, you have until next summer or fall to use it.
 - c. If you get it during the spring, you can use it immediately.
 - d. If you get it during the summer, you can use it immediately or hold onto it until next

- spring.
- e. If it expires, DEEP should be able to recognize that the voucher was not used.
 - i. Whatever system DEEP comes up with, it should all be the same to end-users.
13. How should vouchers be authenticated?
- a. I mean it's not that complicated. It could be as simple as maintaining a database of all vouchers that have been issued, and having retailers sign up to access the database.
 - b. The retailer can submit a request to authenticate the voucher. If it is valid, the voucher is used. If not, sour grapes.
14. What other data/information would inform the development of an E-bike incentive program?
- a. Who bikes?
 - b. Who wants to bike?
 - c. Who takes public transport to work/groceries?
 - d. Do you like taking public transport to work/groceries?
 - e. Do they know E-bikes exist?
 - f. What stops people from biking?
 - g. How safe do they feel biking?
 - h. City development should step away from car-centric design to allow bicycles to even exist.
 - i. Remove minimum parking requirements.
 - j. Upzoning, mixed commercial residential areas.
 - k. I hate cars.

I apologize for this being submitted later than the comment period deadline. I hope this goes through regardless.

I could be humble, but I figure that if I'm going to write up an essay addressing all the stupid aspects of these question, I might as well let my opinions come off as braggadocious. I think the biggest problem with these programs is that, while well-intentioned, focus too much on economic justice than environmental justice. I get that those with lower income than I will not have the same opportunities that I have. I outright bought my E-bike so I can ride it to work. It's nice and simple, but I still have to drag myself down the shoulder of Route 110. For some, that may be a little too scary. If public transportation wasn't such a miserable joke, I might take that instead.

The real goal of this should be to get more people out of cars. They are the worst solution to no-one's problem. What do they solve, really? All they do is give us the option to live far away from each other. God forbid we have people living in townhouses. An extremely generous voucher program for all citizens of CT is the only way to go for this program. More bikes on the road will push developers to cater to the growing demand. You must also incentivize developers to start the work even before the bikes start rolling out. It would be stupid for everyone to get E-bikes, start riding around, and end up having to charge the battery at each endpoint. Bring things closer together and streamline bicycle traffic.

Dante A. Pace

25 E 9th Street First Floor

Derby, CT 06418

860-888-3443

From: [D.Gutelius](#)
To: [DEEP MobileSources](#)
Subject: Response to E-Bike Request for Information
Date: Wednesday, July 27, 2022 2:27:54 PM

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Hi,

Thanks for holding the listening session last week!

First, I want to second a suggestion made during the session that income verification for residents already paying CT Income taxes should not require any additional documentation and income should just be confirmed via their most recent taxes.

Second, I propose a simple opt-in for automatic enrollment into Bike Theft registries. The benefit here would be that the ebike rebate program would likely already include collecting all the information usually required to register a bike with various registries (serial number of the eBike, owner's name and contact info, and potentially the bike shop's/store's info to confirm original ownership if ever needed)

Two example registries are:

<https://bikeindex.org/>

<https://project529.com/garage>

I believe some bike shops already offer various forms of customer bike registration programs at the time of sale, however doing theft registration through the e-bike rebate platform may help make sure all bike purchases have convenient registration and to make it consistent across retailers.

Although this suggestion is a bit vague in its current form, I hope that it can be evaluated as possible stretch goal or long-term roadmap idea.

Looking forward to seeing the implementation of this program!

Thanks!

David Gutelius

From: [Ethan Heywood](#)
To: [DEEP MobileSources](#)
Subject: Response to E-Bike Request for Information
Date: Wednesday, July 27, 2022 4:33:27 PM

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Hello,

My comment is that the electric bike rebate program consider the failures/flaws of the CHEAPR EV program. I previously had to navigate through that in 2021 and never got my rebate due to the complicated structure through the car dealership and lack of transparency. There were not clear points of contact to request the status and seemingly no accountability or expectation of communication from the dealer. The process overall was very opaque. I think there should be a clear step-by-step walkthrough of every stage of attaining and using the ebike voucher, and who to contact for help throughout the process. I would also encourage there to be a resource to verify ebike manufacturers as reputable, something like the way that there is a list of retailers for energy efficiency equipment, as it is currently a wild west and there are many cheap ebikes with no or poor warranties and poor customer support.

Sincerely,
Ethan Heywood

From: [Gannon Long](#)
To: [DEEP MobileSources](#)
Subject: "Response to E-Bike Request for Information"
Date: Wednesday, July 27, 2022 10:31:53 AM
Attachments: [image001.png](#)
[E bike RFI response 7.27 Op Fuel.pdf](#)

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Good morning, please see Operation Fuel's comments, attached.

Gannon Long

Policy & Public Affairs Director

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Operation Fuel comment in response to [DEEP Request for Information](#).

Submitted by Gannon Long, Policy & Public Affairs Director.

July 27, 2022

RFI is intended to solicit information on:

(3) Suggestions on how DEEP can identify and prioritize EJ communities and LMI individuals/households;

The legislation provides categorical eligibility for the highest possible CHEAPR vouchers for low-income residents, including those who receive state benefits, Operation Fuel clients, and residents of Environmental Justice Communities (EJCs). DEEP should collaborate with Department of Social Services, Department of Children and Families, and other agencies that provide benefits for these populations, to inform and enroll clients. The legislation also empowers DEEP to establish a voucher amount up to twice the amount of the standard benefit, for these populations. So far, DEEP has not clarified that they will exercise this opportunity to offer an enhanced benefit, or what that will be. Operation Fuel recommends that the agency announce as soon as possible that EJC residents, Operation Fuel clients, and other categorically eligible residents can qualify for an ebike voucher up to \$1000, compared to the standard benefit of \$500. Sharing concrete details of the program, including where to access bikes, incentives for purchase, and implementation timeline would be helpful for potential customers. Operation Fuel recommends that DEEP formalize this benefit amount as quickly as possible to encourage interest in the program and help stakeholders promote it.

The less burdensome the application process, the more likely customers will apply and buy bikes. We recommend that DEEP reach out to Superpedestrian, who operate Link scooters in a few municipalities across the state. Superpedestrian allows customers who demonstrate they are on state assistance to sign up for scooter share at a discount of 70% - this makes the vehicles cheaper than bus fare for many trips. As of fall 2021, over 400 customers were enrolled in these accounts in Hartford, which has become one of Link's busiest markets in the United States. The scooters are very popular despite minimal advertising, because they are easy to use and are promoted directly by user word of mouth. CHEAPR's ebike program would benefit from a similar simplicity of use and value for customer.

DEEP manages state parks and promotional campaigns encouraging residents to visit and explore them. In addition to regular updates about parking lot status, DEEP could also

promote public transit directions to state parks, and share maps with preferred walking and biking routes. These campaigns are also an opportunity to promote clean transportation options, and the ebike vouchers.

Operation Fuel enthusiastically supports ebikes as a clean transportation option, especially for households that can't afford cars. However, we also stress that the state must do much more to ensure that bike riders are safe on CT roads. Too many municipalities lack protected, connected bike networks, with traffic violence on the rise over the past decade. We encourage DEEP, CHEAPR board members, and other stakeholders to continue working with state and local planners to improve roads and facilities for people on bikes.

(4) How an E-bike program can maximize the air quality benefits with a focus on EJ communities and LMI individuals/households;

One of the key ways that the ebike program can help improve air quality in over polluted communities is to help residents get around, without using cars. DEEP should work with local organizations in EJs such as Waterbury, Bridgeport, New Haven (CT's asthma capital) and Hartford (close behind New Haven) to measure air quality in EJs.

There are challenges to ebike adoption for different consumers. It's important to consider what will make these bikes, which many residents have not used or maybe heard of, more accessible to people who live in over polluted communities and lack transportation options. One approach could be to encourage an ebike share for municipalities, that would give people a chance to ride bikes without being responsible for maintenance or upfront costs. Based on the diversity and density of their towns, Operation Fuel suggests that Bloomfield, New Britain, and Windsor could be great locations to pilot an ebike share. Additionally, consumers need security for their bikes and batteries, including lights and locks, charging options, and proper public storage. Consumers will need solutions and recommendations for how to store a bike securely without a garage or extra space inside the dwelling. If consumers are worried that parts of their vehicle or the bike itself may be stolen, they are less likely to pursue the purchase. Without secure public storage near grocery stores, libraries, stores, and other areas where people do errands, it will be more challenging for families who would benefit from an ebike for transportation, to access them.

Finally, large employers, such as the state of CT, hospitals, insurance companies, non-profits, and other corporations should encourage their employees to take advantage of the ebike vouchers. Companies can both inform staff of the opportunity, while also providing safe storage options on campus for ebikes. Pre-COVID in Hartford, commuters doubled the weekday population. Unfortunately, more than 80% of these commuters drive themselves alone to work, higher even than the national average. Some employers like Travelers have robust transportation demand management programs, encouraging staff to take the bus downtown. Others, such as Aetna and the State of CT, have not pursued these car-free solutions, instead expanding parking lots and garages in environmental justice communities that already deal with elevated levels of traffic violence and air pollution. Large employers can

be part of the solution and remove cars from the road by making it easier for employees to commute in different modes. CHEAPR could also encourage non-profits to promote and provide clean transportation options such as ebikes for their employees.

(5) Public and private partners that may aid in implementation of an E-bike program

Local bike shops are key stakeholders who can help work through some of these issues in a practical way. It is necessary for the CHEAPR program to get bike shop owners and staff on board at this early design phase. For one, their input will enhance the program offerings. Shop participation will help get the word out to consumers who are interested in bikes. And, bike mechanic service will be necessary for consumers who buy bikes and need tune ups or upgrades. We note that holding daytime meetings with little public notice may not be the best way to pursue relationships with retailers. A list of bike shops with contact information was shared with agency staff after a stakeholder meeting in June. Operation Fuel recommends that DEEP staff reach out individually to bike shops in state, either in person or by phone, to get these small businesses more involved.

(8) What other E-bike customer experiences should DEEP take into account? (e.g., return policy? Battery reuse or recycling programs)

Operation Fuel notes that many bike and potential ebike users are also transit riders. We recommend that CHEAPR partner closely with CT DOT and CT Transit to market ebikes and facilitate their use as first mile/ last mile options. There are also logistical challenges that we hope CT Transit will work to address. While buses have bike racks on the front, ebikes may be too large or heavy to access this transportation method, which removes riding the bus as a travel option. We hope that new electric buses CT is acquiring can accommodate larger, heavy, and more bikes. Another idea is to provide secure storage for bikes and ebikes at transit stops and train stations.

Operation Fuel hopes that CHEAPR will identify vendors and producers with responsible, consumer friendly battery recycling. However, as we are not aware of battery recycling requirements for CHEAPR's automobile distributors or producers, we caution against imposing extra conditions on bike consumers that drivers don't deal with, and on bike retailers that auto dealers don't. EVs have much larger and more environmentally destructive batteries than e bikes, so if battery disposal is an issue, we recommend that CHEAPR start exploring this first with the electric cars promoted in the program.

(10) How should DEEP define “maximum income eligibility” for e-bikes?

Does the CHEAPR car rebate program have an income cap? We believe the same one would be appropriate for the bike incentives. We advise that complicated income verification

processes are likely to depress participation, and slow the efficiency of disbursement. The more that we can standardize income guidelines across state programs, rather than creating new ones that complicate voucher administration, the better.

- (11) Should DEEP seek to protect LMI participants from unfair or abusive finance terms? If so, how should DEEP do this?

Again, we refer to the methods used to protect consumers for the electric car rebates through CHEAPR, which should also serve cyclists. DEEP should work with the Department of Consumer Protection and Attorney General to protect all program participants from unfair or abusive finance terms. We recommend that the agency develop a one-page application for bike shops to sign up to participate in the program. With this directory, the agency can quickly and effectively communicate program updates to vendors, as well as transferring data and funds securely. It would also help consumers know where they can go to most readily access their vouchers. If companies are found to be engaged in unfair trade practices, the Attorney General should get involved. We do not see DEEP as the appropriate agency to evaluate consumer financial abuses.

- (12) If DEEP utilizes a voucher program, what length of time should be selected for the voucher expiration date?

Depending on the efficiency of the program administration, probably 6 months is an appropriate time frame for the voucher use. We recommend that the expiration period at least be longer than the amount of time it takes the program staff to approve an application. So, if a customer applies on January 1, and is approved on April 1, they should have at least 3 months to spend the voucher.

- (13) How should vouchers be authenticated?

DEEP should be prepared to direct customers to local bike shops, and online vendors, to redeem the vouchers. DEEP should develop two systems to allow customers to use vouchers at the point of sale. For online retailers, customers will need a discount code, similar to how Groupon or online sale codes work. DEEP would have to select and work with online retailers to set this up. For bike shops, the voucher needs to be available at the physical point of sale, so that neither the customer nor the shop has to hold debt waiting for reimbursement. It is essential that DEEP staff directly engage front line workers to understand how to implement the vouchers successfully. Additionally, we appreciate the suggestion from stakeholders at the listening session on July 21 that local bike shops be eligible for incentives to carry and service ebikes. We believe DEEP should explore this further to encourage program participation and buy in from bike shops, which is necessary for program success.

From: [jan.tanner](#)
To: [DEEP MobileSources](#)
Subject: "Response to E-Bike Request for Information".
Date: Wednesday, July 27, 2022 11:39:25 AM

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Good day,

This email is a response to a conversation about E-Bike incentive programs in Connecticut.

While there is a list of specific questions related to understanding the number of E-bike manufacturers, E-bike retailers, warranty policies, recycling efforts, income eligibility, etc., I am writing to express a greater concern that ultimately **doesn't** support a broad incentive program.

As a bicycle retailer for 25 years in Canton, CT, we have served our community in wellness and service while being an advocate for safe riding, educational opportunities and the slow moving efforts of infrastructure and multi-modal transportations. We have helped our town achieve bronze level recognition as a Bicycle Friendly Community.

I may not be an expert on any one of these topics, but believe in the foundation of education (which includes bicycle education), wellness, environmental responsibility and the ways we can help in using e-bikes for transportation, and not just the greater use of recreation.

As we have been a retailer that has experienced the growth of e-bike use, it is my observation that the greater growth is related to recreational use and not transportational use...at least in our area. In addition, the observation is that the majority of people purchasing a new e-bike are able to afford it and are not investing to reduce their environmental impact.

I believe an important consideration is to identify and validate the transportational use of an e-bike. If there is consideration of an incentive program, why aren't we considering infrastructure first and help more people understand and using an e-bike for transportation...a vehicle off the road concept. Instead of providing an incentive, why not put the funds directly into infrastructure and educate people about how to incorporate this into their lives? There are apps that are used when riding, that may help identify the routes used for commuting, versus the widespread use of recreational riding.

There is a lot to consider related to e-bike use. I will leave the policies of voucher use, battery warranties, and income eligibility to those that are qualified to research and implement that. I will remain opposed to incentives for e-bike purchases until we consider infrastructure, transportation, education and environmental impact first.

I enjoy seeing people benefit from an e-bike as it certainly contributes in a positive way to an individual's wellness...physically and mentally. I just want to make sure we address the actual need for an incentive for an e-bike.

As I am committed to keeping people riding, I welcome your questions and/or responses.

Ride safely,
Jan

Jan Bolland Tanner

--

Benidorm Bikes

247 Albany Turnpike

PO Box 40

Canton, CT 06019

www.benidormbikes.com

860-693-8891

From: [Jay G](#)
To: [DEEP MobileSources](#)
Subject: Response to E-Bike Request for Information
Date: Wednesday, July 27, 2022 3:45:40 PM

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

The dichotomy: People who need or would make use of e-bikes the most, live in areas of high crime and negligent drivers with disregard for bicyclists. In the DEEP Zoom meeting of July 21, do you recall Jacob from the Hartford Latino Center, BiCi? If not, I can refresh: "I would never, ever, ride an E-Bike on New Park Avenue ". Let's use as an example where I live. Both Whitney and Dixwell Avenues in Hamden (both are CT State Rt 10). Currently I use the sidewalks to travel these routes via bicycle. That is because the cars come too close, and they leave a turbulence that can have a profound effect on stability. Autos do 40-50 mph (often, sad to report, even more) in Hamden on these roads. Neither road has a designated bike lane. However, the very same roads (rt 10) in New Haven, most definitely do have clearly marked bike lanes. I wish that I could tell you that I had an answer to this dichotomy. I want to see the program start soon and succeed, but I also fear that traveling via E-Bike on some roads could be an accident risk greater than that of driving an automobile. In essence, I cannot see an E-Bike program that would flourish without being in concert with DOT and police, stressing auto driver awareness of bicycles, and E-Bike owner awareness of safety.

Jay Gherlone
CT senior citizen and bicyclist
Hamden, CT.

Responses to DEEP E-Bike Incentive Program Request for Information

From: [Jim Head](#)
To: [DEEP MobileSources](#)
Subject: Response to E-Bike Request for Information
Date: Wednesday, July 27, 2022 11:49:14 AM

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

I'm a west hartford resident with 2 years (5000 miles) of ebike experience, so am providing responses where I have information to contribute. Some questions I'm leaving blank. Feel free to reply if you need any clarification, thanks!

(1) What are the best practices from other E-bike incentive programs? Including, but not limited to:

a. Application processes (both on-line and in-person),

I'd hope the process is as easy as possible for the consumer. If the rebate could apply at point-of-sale so the consumer didn't have to pay up-front, that would be ideal.

b. E-bike Applicability,

All e-bikes, although any education at point of sale on Class status (max 20mph vs 28mph vs moped-type ebikes) and what types of path they are allowed on, including sidewalks and multi-use trails would be extremely helpful.

c. E-Bike retailer selection and inclusion,

d. Opt-in for customers to authorize contact by E-bike vendors,

e. E-bike Incentive levels,

f. LMI income verification, and

g. Participant surveys.

Participation surveys would be helpful, asking things like vehicle miles replaced by ebike miles, would help assess effectiveness. Also survey questions should include identifying perceived gaps in cycling infrastructure in the person's town could help with town and city planning.

(2) How should DEEP determine the air quality benefit from program participation?

Track miles ridden via ebike. Add an ebike option to and leverage the CT rides app (right now CT rides has a cycling drop-down but not ebike-specific)

(3) How many manufacturers produce E-bikes with a base MSRP of \$3,000 or less? Please include contact information, if available.

Radpower, Juiced bikes, Lectric, Velowave - there are many. ElectricBikeReview.com has an advanced search option to put in price range and see reviews of all brands they review.

https://electricbikereview.com/?s=&_range_min_price=0&_range_max_price=2980&_range_min_total-weight=0&_range_max_total-weight=227&_range_min_top-speed=0&_range_max_top-speed=50&_range_min_battery-watt-hours=0&_range_max_battery-watt-hours=3456&_range_min_frame-sizes=0&_range_max_frame-sizes=432&_range_min_motor-torque=0&_range_max_motor-torque=250&_range_min_gearing-details=0&_range_max_gearing-details=30&_multi_model_year=&_multi_body_position=&_multi_suggested_use=&_multi_frame_types=&_multi_drive_mode=&_multi_availability=

(4) How many E-bike retailers are there in Connecticut? Please include contact information, if available.

For Hartford Area:

BiciCo, Central Wheel, Best Buy, and REI are in West Hartford, and I'm aware that Bloomfield Bike Shop has a large selection of ebikes

(5) How many E-bike retailers are there in on-line? Please include contact information, if available.

Many - I ordered from RadPower Bikes and looked also at Juiced bikes when considering my ebike purchase

(6) What is the industry standard E-bike warranty?

My ebikes came with a 1-year warranty

(7) What is the best industry E-bike warranty?

I do not know, but from experience with RadPower, they've sent necessary tools or replacement parts at no cost when issues *not* associated with normal wear and tear were encountered, outside the 1 year warranty window. What I encountered so far have been minor and infrequent issues that were resolved quickly.

(8) What other E-bike customer experiences should DEEP take into account? (e.g., return policy? Battery reuse or recycling programs)

www.northeastbatterysystems.com

This is a CT company that does battery analysis and repair. More like it should exist. My and wife's ebike batteries still work fine (2 years in) but I do plan to have my battery rebuilt instead of recycling and purchasing new if/when it fails.

(9) How often are E-bike purchases financed?

Monthly finance offers are common on purchases I've seen. I have always purchased outright and don't have these stats.

(10) How should DEEP define "maximum income eligibility" for e-bikes?

However it defines maximum income eligibility for other EV's.

(11) Should DEEP seek to protect LMI participants from unfair or abusive finance terms? If so, how should DEEP do this?

(12) If DEEP utilizes a voucher program, what length of time should be selected for the voucher expiration date?

(13) How should vouchers be authenticated?

(14) What other data/information would inform the development of an E-bike incentive program

To the extent possible, getting e-cargo bike rentals (or even rent-to-own options) in cities would go far to raise awareness and appeal of e-cargo bikes. On the one side, owning an ebike could do a lot to reduce vehicle miles traveled- however, many of the LMI population living in apartments may struggle with owning, storing, and maintaining such a large/heavy bike. The larger the bike, the more it can do to replace a car. Mainly, a large

Responses to DEEP E-Bike Incentive Program Request for Information

compartment to carry several bags of groceries (Chicago has Divvy cargo bikes for rent) makes an ebike a great option for car replacement.

- Make e-cargo bike rentals available
- research OONEEPOD and other covered bike storage facilities for cities
- incentivize businesses to convert and offer covered bike storage
- create spaces for people to maintain their ebikes
- research current offerings for ebike maintenance and flat repair. Two that come to mind are VeloFix (a service that comes to you to maintain your bike/ebike) and AAA which now offers coverage for ebikes and bikes in addition to cars
- make shops that sell ebikes pedestrian accessible. Central Wheel is on an awful road (Farmington Ave/ St Rt 4). I ride my ebike there to get it maintained then walk home (< 1 mile) on the narrow curb, trying to avoid getting struck by fast-moving cars. Ebikes are heavy and require a special rack if transporting by car. I don't bring mine anywhere by car for this reason. Infrastructure planning should therefore please consider ebike vendors and maintenance locations so they are accessible by walking, bus, and bike. I bring my ebike for maintenance once per year in addition to doing much of the maintenance on my own. Ebikes should be maintained every 6 months, minimum.

From: [Kate L. Rozen](#)
To: [DEEP MobileSources](#)
Subject: Response to E-Bike Request for Information
Date: Wednesday, July 27, 2022 10:42:28 AM
Attachments: [Response to E-Bike Request for Information - Kate Rozen.docx](#)

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Dear Air Rights Bureau team,

Thank you! Attached are my responses to the RFI on the ebike program.

Warmly,
Kate Rozen

Kate Rozen – Woodbridge, CT

RFI Questions

To inform its E-bike rebate and/or voucher program development efforts, as required by Section 7 of the Act, DEEP is seeking information on several questions. While any information and views are appreciated, DEEP encourages commenters to provide the following information:

1.a. Application processes (both on-line and in-person) –

Burlington, VT has the longest in practice ebike point-of-sale rebate program. Details are available here.

<https://www.burlingtonelectric.com/ebike>

ELECTRIC BIKE

Rebate Amount: Lesser of \$200 or 25% of the purchase price

This rebate is in addition to any manufacturer rebates.

Have the following items ready:


- Your Burlington Electric Department account number. It is printed on your monthly bill.
- A photo or scan of a proof of purchase or lease

Terms & Conditions

- Only valid on purchases of new electric bikes.
- Not available for purchases at bike shops that are participants in the instant rebate program.
- Rebate amount is limited to the lesser of \$200 or 25% of the purchase price.
- Electric bike motor must be at least 250W.
- Electric bike battery must be at least 250Wh.
- Purchase must be made after May 18, 2022
- This rebate is only for BED customers with active accounts.
- This rebate form must be submitted within 60 days of purchase.
- Limit two rebates per household & two rebates per commercial account.
- Additional rebates may be available with prior approval.

- This offer is valid through December 31, 2022.
- Burlington Electric Department reserves the right to inspect installation and/or verify purchase.
- Burlington Electric Department reserves the right to modify or end this offer at any time.
- Please be aware that if your rebate is greater than \$600 you may be required to complete and submit a W9 form. A W9 form will be provided in this rebate form if it is required.

E-bike
Online Rebate Form »



1b. Ebike applicability-

I share the same opinion as **People for Bikes**. “Include all forms of electric bicycles within the three-class system. Many other models of electric bicycles such as electric mountain bikes or electric cargo bikes can be more expensive than the utilitarian or leisure models. With no price cap, all forms of electric bicycles would be eligible for a program to further incentivize healthy and carbon-free forms of recreation and transportation. 38 states have adopted the three-class model legislation for electric bicycles as this legislation defines what a safe, low-speed electric bicycle is and gives it similar rights and duties to that of a traditional bicycle. This is the industry accepted definition of an electric bicycle.”

1c. E-bike retailer selection and inclusion-

The program should support both local bike shops and high quality online retailers. There should be an application process for both. The Denver ebike program uses this form for retailers to register for the program <https://us.openforms.com/Form/7fbe0485-f015-42c7-b236-5ea98bdfdb2a>

1d. Opt-in for customers to authorize contact by e-bike vendors-

This should be offered so that customers can be made aware of any recalls.

1e. E-bike Incentive Levels-

\$500 for everyone, \$750 for non-income qualified residents in environmental justice communities, and \$1,000 for low income individuals who qualify.

1f. LMI income verification –

Whatever metrics are decided, it should be as easy as possible with as few steps as possible for individuals within this population.

1g. Participant surveys-

Feedback should be solicited at each touch with the potential customers- post application process, at point of sale and if the voucher isn't redeemed by the customer.

2. How should DEEP determine the air quality benefit from program participation?

A customer opt-in should be offered at the point of application approval to sign up for the CTRides app OR some other commensurate air quality tracking app. An information packet with safe cycling information and another prompt to download the app should also be offered at the point of sale. Finally, a post-purchase survey timed approximately one month after should solicit information about miles ridden. DEEP would be able to take this information and convert it to lbs of emission reduction as well.

3. How many manufacturers produce e-bikes with a base MSRP of \$3,000 or less? Please include information, if available.

Most e-bike brands have at least one model that is under the \$3k price cap. Direct sales manufacturers such as Aventon, Blix and Radpower bikes have many models under the \$3k cap, including cargo style bikes.

4. How many e-bike retailers are there in Connecticut? Please include contact information, if available.

Please see the attached for this information. This list was compiled using People for Bikes and checking to see which shops are still active.

<https://docs.google.com/spreadsheets/d/1sL8ENBr98215xCkrdW1DzXcPnYyHtgwJtgve335xdps/edit?usp=sharing>

5. How many E-bike retailers are there on-line? Please include contact information, if available.

By asking all participating retailers to apply to be included in the program, this will hopefully prevent ebike companies with dubious manufacturing processes from being included.

6. What is the industry standard e-bike warranty?

7. What is the best industry e-bike warranty?

8. What other E-bike customer experiences should DEEP take into account? (e.g., return policy? Battery reuse or recycling programs)

At a minimum, the customer should have a point of contact to be able to get in touch with if there are issues. For a local bike shop, this would be them. For any approved direct sales, there needs to be evidence of a process for customer to be able to contact the company to resolve any issues.

9. How often are E-bike purchases financed?

I can only speak to my own experience. I purchased my bike from direct sales company Radpower Bikes. They had a partnership with [Affirm](#). After I selected a bike for purchase, I applied for financing through Affirm. I made my purchase and then paid for the bicycle over the course of one year of payments. Additionally, local credit union Connex now offers e-bike financing that includes the purchase of accessories.

10. How should DEEP define “maximum income eligibility” for e-bikes?

As inclusively as possible. For Connecticut to maximize the air quality benefit, we need as many people utilizing single occupancy, internal combustion engine vehicles as possible. That means casting our net widely. If we make a cap too low, middle income families will miss out. If a cap must be enacted, I would suggest using the same parameters that were used for the federal stimulus payments or the child tax credit. Anyone who qualified for either of those should be included in.

11. Should DEEP seek to protect LMI participants from unfair or abusive finance terms? If so, how should DEEP do this?

DEEP should work with Claire Coleman in the Department of Consumer Protection in advance of launch.

12. If DEEP utilizes a voucher program, what length of time should be selected for the voucher expiration date?

At least six (6) months to one (1) year.

13. How should vouchers be authenticated?

I share **People for Bikes** opinion, “Controlling receipt of incentives by target groups is unlikely to be worth the high administrative effort of doing so, so programs should not invest heavily in this authentication. Programs elsewhere have found little evidence of unintended parties using the vouchers. While an online application portal is important for easy administration and recording-keeping, an offline option (perhaps in local bike shops, social service centers, and partnering non-profits) is important too since only three-quarters of those with incomes under \$30,000 have access to a smartphone.”

14. What other data/information would inform the development of an E-bike incentive program?

Feedback from participants – both customers and retailers will be important. The success of the program will hinge on how well implantation goes and reducing any sandpapyery parts in the process. I have full faith and confidence in the staff working on this.

From: [Kerri Provost](#)
To: [DEEP MobileSources](#)
Subject: Response to E-Bike Request for Information
Date: Monday, July 25, 2022 4:16:31 PM

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

What are the best practices from other E-bike incentive programs? Including, but not limited to:

-

Application processes (both on-line and in-person)

If the application process is complicated, too few low income people will get e-bikes. The local headline of the week has been about how only half of eligible households claimed the \$250-per-child tax rebate. Learn from that mistake and make the e-bike rebate actually accessible.

Remove as many obstacles to receiving the voucher as possible (and it's all possible) to ensure equity. The State of Connecticut already has everyone's income information through tax returns.

Any documents should be in English and Spanish.

It's a rebate, not a loan. There is no reason not to keep this simple.

-

LMI income verification

Use the tax returns that the State of Connecticut has on file and which we all are mandated to fill out every year.

What other data/information would inform the development of an E-bike incentive program

These comments are all about communication and promotion of program:

Communicate clearly, concisely, and proactively.

Not everyone will be replacing a car with an e-bike. Some people do not have cars in the first place because of the expense, and other reasons. Bicycles mean freedom. Find a way to articulate that.

Run your messaging by people who are *not* part of DEEP or even involved in transportation advocacy to make sure that wonky language and unnecessary acronyms are nowhere in the program materials.

Put program information where EJ communities will see it: Spanish language media, public libraries, 2-1-1, public transit.

If the program is up and ready in the winter, promote it then. Don't wait for "better weather." People who are looking at e-bikes as their mode of transportation might not be waiting until Spring because they still have to get to work, grocery stores, drop kids off at school, etc. in the meantime.

This program is a step in the right direction. This is not the time to act meek or apologetic in your messaging. Connecticut is finally doing what we should have done a decade or more ago. Celebrate this progress and let people know about it.

Thanks,
Kerri Provost

From: [Romero, Michael M M PW](#)
To: [DEEP MobileSources](#)
Subject: Response to E-Bike Request for Information
Date: Wednesday, July 27, 2022 10:49:31 AM

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

To whom it may concern:

The E-Bike incentive program needs to have an option for E-bike conversions. Many people have existing bicycles that have the potential to be converted to electric. A number of programs throughout the country offer similar incentives for conversions including Colorado, Vermont, and California (source: <https://www.qualisports.us/blogs/news/ebike-rebates-and-incentives-programs-in-the-usa>). I am a proponent for e-bike conversions because they produce less emissions than producing and shipping a new bike, and they are affordable and attractive options to enter the E-bike market due to their low cost and ease of installation.

I am also a proponent of UL 2849 certified E-bikes as they are required to meet a more strict fire safety standard. Perhaps further incentives to purchase E-bikes that meet this standard should also be considered.

Thank you,

Michael Romero

From: [Paul Wessel](#)
To: [DEEP MobileSources](#)
Cc: [Barozi, Walter](#)
Subject: Response to E-Bike Request for Information
Date: Wednesday, July 27, 2022 4:46:06 PM
Attachments: [GNHCCC E-Bike RFI Response.pdf](#)

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Please see the attached.

- Paul

Paul Wessel
Coordinator
Greater New Haven Clean Cities
wessel@nhcleancities.org
203-410-8018

NHCleanCities.org
[LinkedIn](#)





Response to CT DEEP Request for Information (RFI) Electric Bicycle (E-Bike) Program July 6, 2022

In response to your RFI, Greater New Haven Clean Cities reached out to our network of researchers who have been looking at e-bike programs. As researchers, they are extensively involved in the program evaluation and analysis of e-bike incentive activity, intend to pursue US DOE funding ([DE-FOA-0002611: Fiscal Year 2022 Vehicle Technologies Office Program Wide Funding Opportunity Announcement](#)) to further their work, are happy to share their experiences with Connecticut, and are eager to work with data from Connecticut's e-bike programs.

We met the day before the deadline for this RFI and I have cobbled together some of their email responses to your RFI request. Some were on vacation, and we all were scrambling to get something to you by your deadline. Please pardon any incomplete comments.

The researchers I spoke with are:

- Chris Cherry, cherry@utk.edu, Professor, Department of Civil and Environmental Engineering, University of Tennessee, Knoxville
- Andrew Duval, Andrew.Duvall@nrel.gov, Transportation Behavior Analyst, National Renewable Energy Laboratory
- Dillon Fitch, dfitch@ucdavis.edu, Professional Researcher, Co-Director BicyclingPlus Research Collaborativem YCDavis Institute of Transportation Studies
- John McArthur, jhmacart@pdx.edu, Sustainable Transportation Program Manager, Transportation Research and Education Center, Portland State University
- Mollie Putzig, Mollie.Putzig@nrel.gov, Project Leader for Clean Cities, National Renewable Energy Laboratory
- K. Shankari, K.Shankari@nrel.gov, Postdoctoral Director's Fellow, National Renewable Energy Laboratory
- Josh Sperling, Joshua.Sperling@nrel.gov, New Concepts Incubator, Urban Futures and the Energy-X Nexus, Postdoc Fellow, National Renewable Energy Laboratory

I think it's likely that, if DEEP is interested in further input from this team, a conversation could be arranged. Please let me know if that would be helpful.

- Paul

Paul Wessel, Greater New Haven Clean Cities
wessel@nhcleancities.org
July 27, 2022

Response to specific RFI questions

(1) What are the best practices from other E-bike incentive programs? Including, but not limited to: a. Application processes (both on-line and in-person), b. E-bike Applicability, c. E-Bike retailer selection and inclusion, d. Opt-in for customers to authorize contact by E-bike vendors, e. E-bike Incentive levels, f. LMI income verification, and g. Participant surveys.

The point-of-sale application/discount is likely to give the best results in terms of getting dollars out the door. PCE in our study sold out in a month doing it this way. Of course, also providing rebates for a wider variety of bikes is a good option to expand the market. For incentive levels, see Alex's paper. For income verification, I've seen programs just ask for proof from a number of other sources, so they don't have to do those checks (PCE did this). I've also heard that some of the existing programs stopped compliance checking so they became untrustworthy. In our survey data self-reported income almost always matched with low-income status as defined by the program parameters...but that's self-reported income :).

Participant surveys are absolutely needed. I think we all agree that something more like a GPS travel diary is also needed to bias correct survey responses. This will require some willingness to share data with researchers. (Dillon)

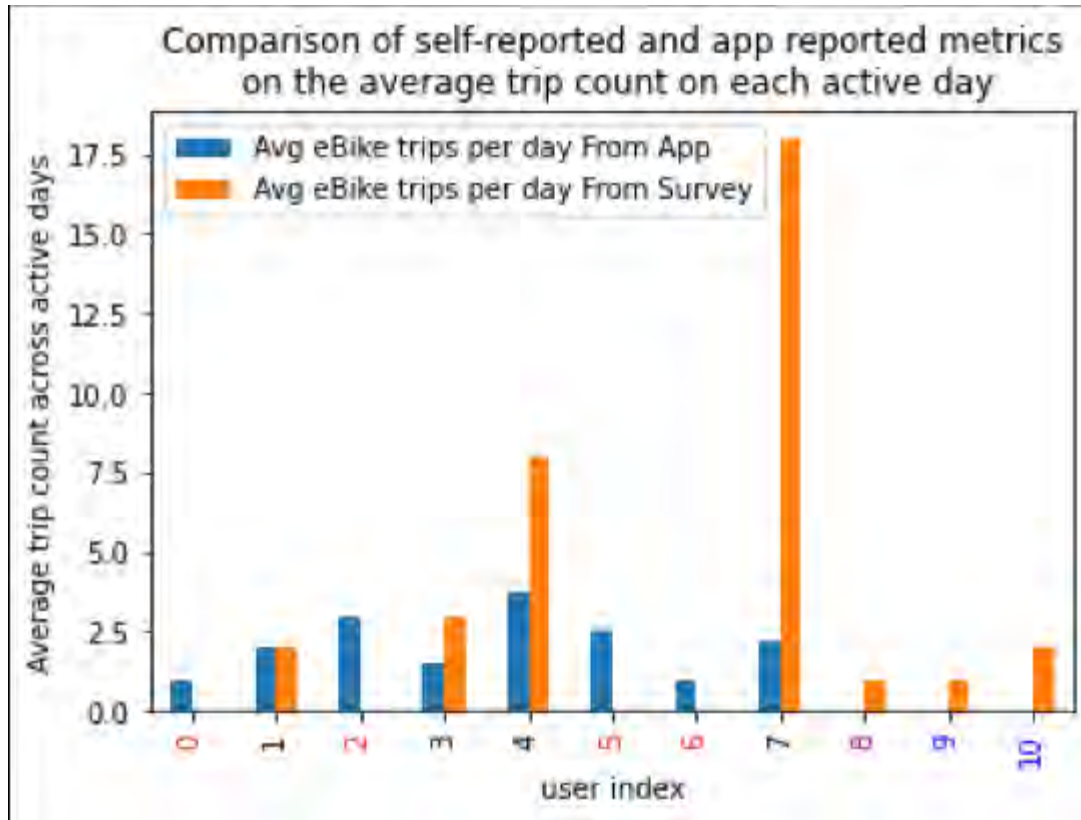
1(a): I believe that the programs had a pre-survey where they asked applicants to indicate how much they would ride their bikes. At least 4CORE specifically targeted restaurant workers and asked their managers to vouch for their ability to follow through on that commitment. (See below for background on Shankari's references)

A couple of programs had a loan-to-own program where they first gave people bikes on a probationary basis and reassigned them if they were not being ridden enough. I know that Smart Commute, for example, had at least a couple of bikes reassigned, and Fort Collins had a participant give up their bike when they left town.

Perhaps unsurprisingly, our mode choice model (currently being prepared for publication) indicates that "not owning a car" is one of the strongest predictors for consistent e-bike ridership. 4CORE had one rider who rode consistently through the dead of winter (> 50% mode share on the e-bike(!)), and he didn't own a car. (Shankari)

1(f): I know that some program admins leveraged existing LMI factors (e.g. EBT) but don't know the details (Shankari)

1(g): As indicated below, the program used NREL OpenPATH for data collection. We also used an auxiliary survey for the mini-pilot, and the side-by-side comparison showed that (a) more people used only the app than only the survey, (b) the self-reported results can be clearly and wildly off in some cases. This is a known issue in the travel survey literature.



However, app-based data collection, like all data collection, is not without its problems. We have seen a slow but steady drop off in the number of participants providing both background data and labels. Program admins have needed to periodically send out reminders/provide incentives to encourage data collection. However, based on the (limited) results from the mini-pilot, it is not clear that a stated preference survey would require less effort.

We are actually pleasantly surprised that we have been able to collect this much longitudinal data. Users have not liked labeling all their trips, but the platform inference pipeline (like all pipelines) has errors. We hope to mitigate both those concerns through incorporating inference results along with error bars later this year. (Shankari)

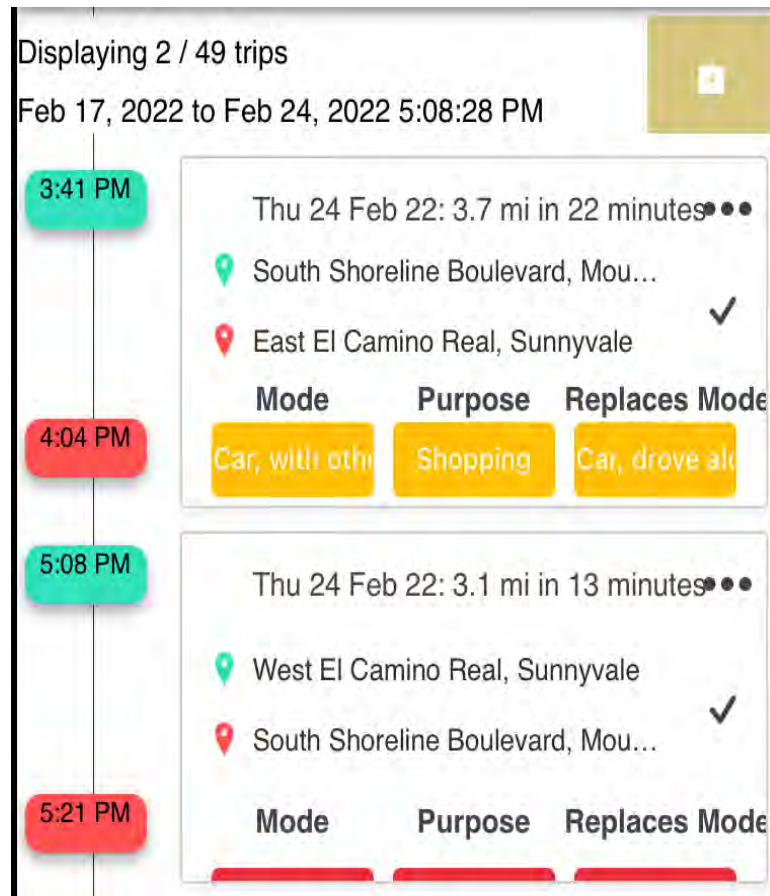
(2) How should DEEP determine the air quality benefit from program participation?

This is a very difficult thing to measure. The most basic way is to measure VMT reduction through self-reported car substitution, then predict emission reductions from VMT reductions. I'm highly skeptical that e-bikes alone will actually reduce aggregate VMT and emissions without changes to the built environment. This is the same challenge when assessing emission reductions from transit investments. When you take people off the road (by ebike or transit), that can induce more demand for driving from others. That being said, focusing on the individual VMT and emission reductions is still valid, it just can't be seen in a vacuum. (Dillon)

(2) As you can see above, we have come up with an approach to evaluate the emissions benefits using trip logging. The overall emission impact is the sum of the per-trip emission impacts, which can be calculated by multiplying the trip length by the difference in emission intensity between the e-bike and the replaced mode. As you can see from the white paper, ORNL’s Transportation Energy Data Book has rough estimates of the energy intensity for different modes, and the Energy Information Administration (EIA) and the eGrid database have energy -> emission conversion factors.

$$(EI_{replaced} - EI_{eBike}) * L_{trip} = EO_{trip}$$

We currently ask the user for the replaced mode through the app (see screenshot below). We are also planning to infer it if not specified based on a mode choice model by the end of the year. The yellow labels are inferred by the “label assist” algorithm that uses prior trip labels to predict new ones.



Also: In response to the program-related questions in the RFI, I would suggest chatting with the Colorado Energy Office or the program admins to learn from their experiences. I am happy to make introductions as needed. (Shankari)

(14) What other data/information would inform the development of an E-bike incentive program

/ think it makes more sense to focus on equity benefits from these programs. Making them 100% low income or at least a large sliding scale for the incentive by income is probably going to see a larger set of benefits. If the incentive is large enough, restricting them to low income shouldn't be a problem (Phillip Kobernick: pkobernick@peninsulacleanenergy.com at PCE has a lot to say about this topic). (Dillon)

Additional information

1.K Shankari:

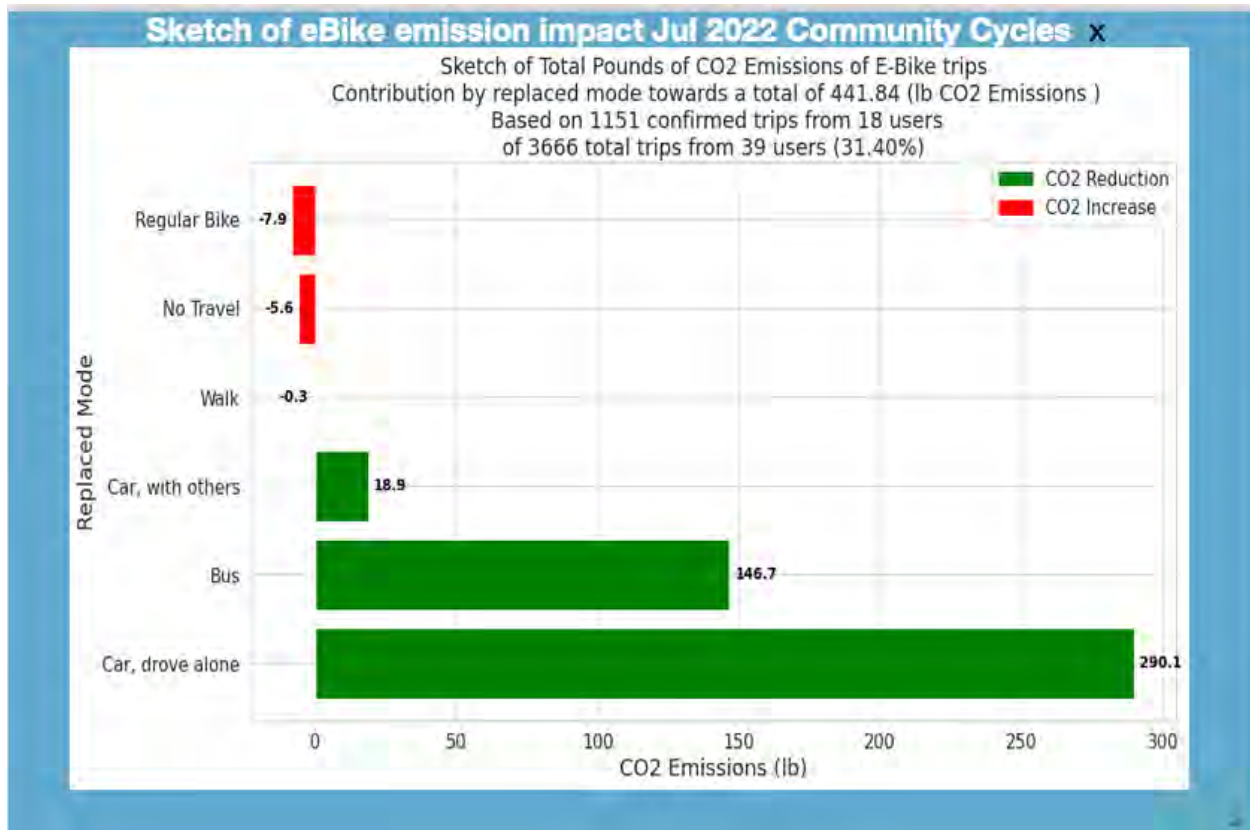
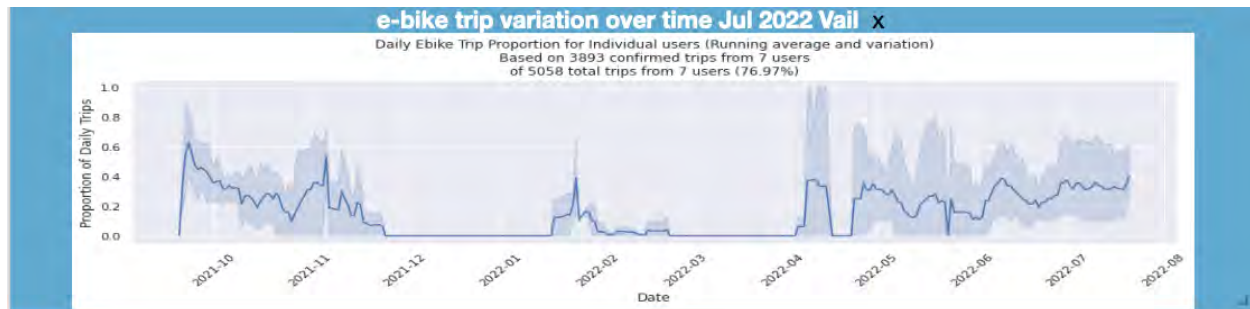
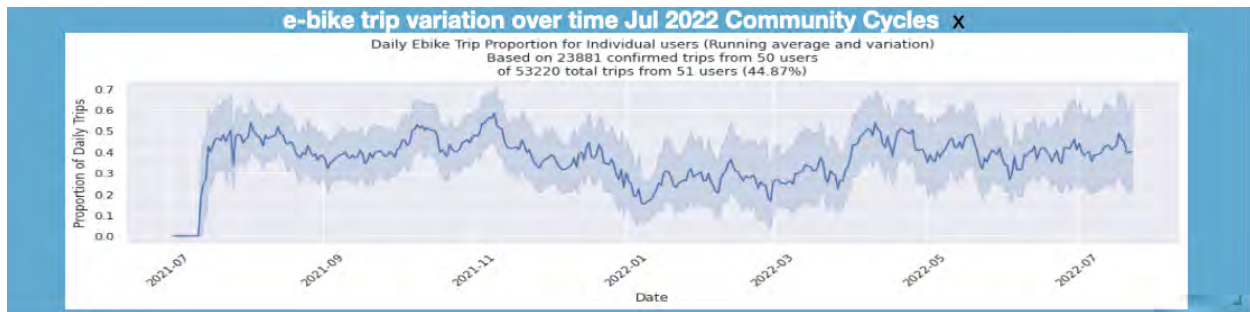
High level summary:

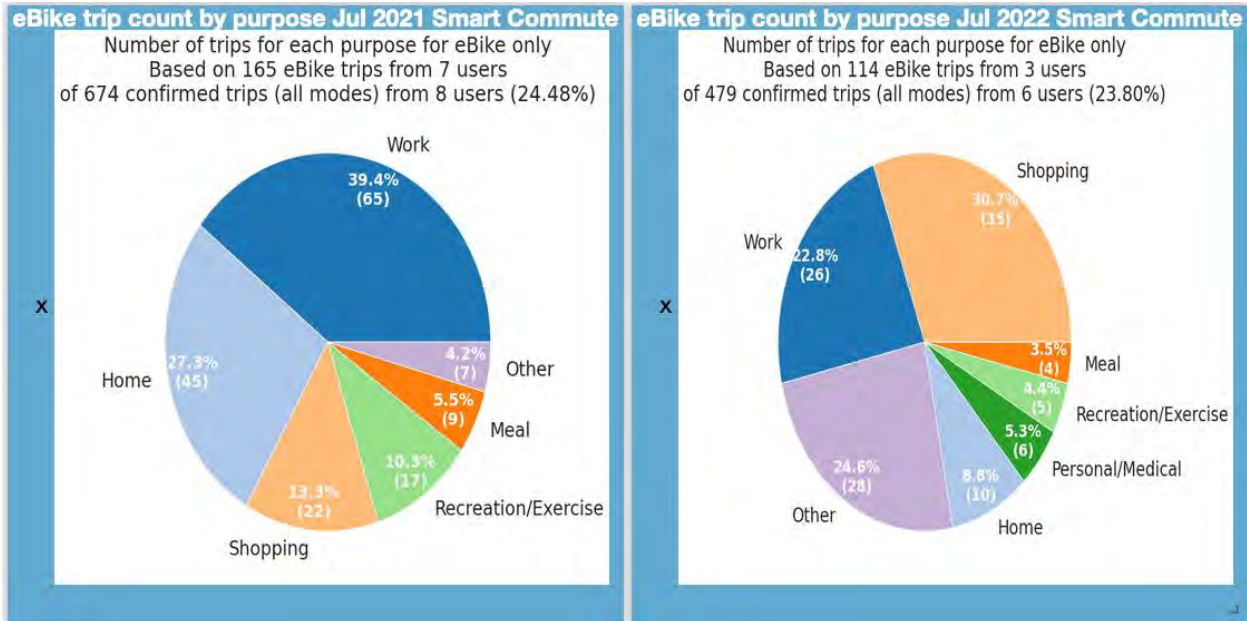
The Colorado Energy Office has been running an ownership model e-bike pilot targeted at low-income households since Fall 2020. They started with a mini-pilot consisting of 13 participants in the Denver area, and have since expanded to 6 locations in Colorado. NREL has assisted them in data collection through the NREL OpenPATH platform, a trip logging smartphone app that allows users to specify trip labels. We also publish monthly reporting metrics in a real-time dashboard (<https://dashboard.canbikeco.org/>) for maximum transparency. Later this year, we will be enhancing the dashboard to include inferred labels with appropriate error bars.

This detailed, longitudinal, trip-level data collection has provided us with a rare look at how e-bike usage varies over time, and how it fits into a full picture of participant travel. For example, we can see how winter dips in e-bike usage correlate with increases in the usage of other modes, giving us a detailed view into participant behavior if the e-bike were not available. We also note that in some cases, the e-bike replaces transit instead of driving alone, likely because e-bike facilitate direct, point-to-point travel.

As outlined in our white paper, the mini-pilot results were strongly positive. The e-bike was the dominant mode share (30% of trip count), and based on the replaced mode selected, participants saved ~ 1400 lbs of CO2 over 3 months. When participants stopped riding their bikes in winter, the number of shared rides increased, indicating that the e-bike might have allowed them to avoid or postpone purchasing a car.

The full pilot has now been running for a year, and the results are similar. A detailed analysis of the full pilot, including breakdown by demographic and geographic characteristics, is in progress. However, monthly reporting metrics already indicate that the e-bike trip mode share hovers at around 20-30%. Ridership is fairly constant in towns with significant bicycling infrastructure, such as Boulder, while it drops and rebounds in mountain towns such as Vail.





2. Chris Cherry:

The PSU team (John MacArthur, macarthur@pdx.edu) and the UTK team (Chris Cherry, cherry@utk.edu) both have strong experience in incentives.

UTK did an incentive study on e-two wheelers in Vietnam and India in 2010 where we refined some methods and came out with some interesting findings about the behavioral response to program structure and price sensitivity. We did a similar thing in a nationwide survey with more than 2000 responses, including some in Hartford. That study is led by macarthur.

UT-K and PSU also have a big 3-year GPS study with Bosch that we finished up, similar to shankari. This Me-Bike study (and others) can be linked at our Light Electric Vehicle Education and Research Institute (<http://micromobilityresearch.com>)

3. Dillon Fitch

Resources:

Alex Bigazzi's paper on e-bike rebate parameters:
<https://www.tandfonline.com/doi/full/10.1080/03081060.2021.1956806>

My recent e-bike papers for information on e-bikes causing behavior change:

[Effectiveness of free bikes and e-bikes for commute mode shift: The case of google's lending program](#)

[Examining the effects of the Sacramento dockless e-bike share on bicycling and driving](#)

[Electric assisted bikes \(e-bikes\) show promise in getting people out of cars](#)

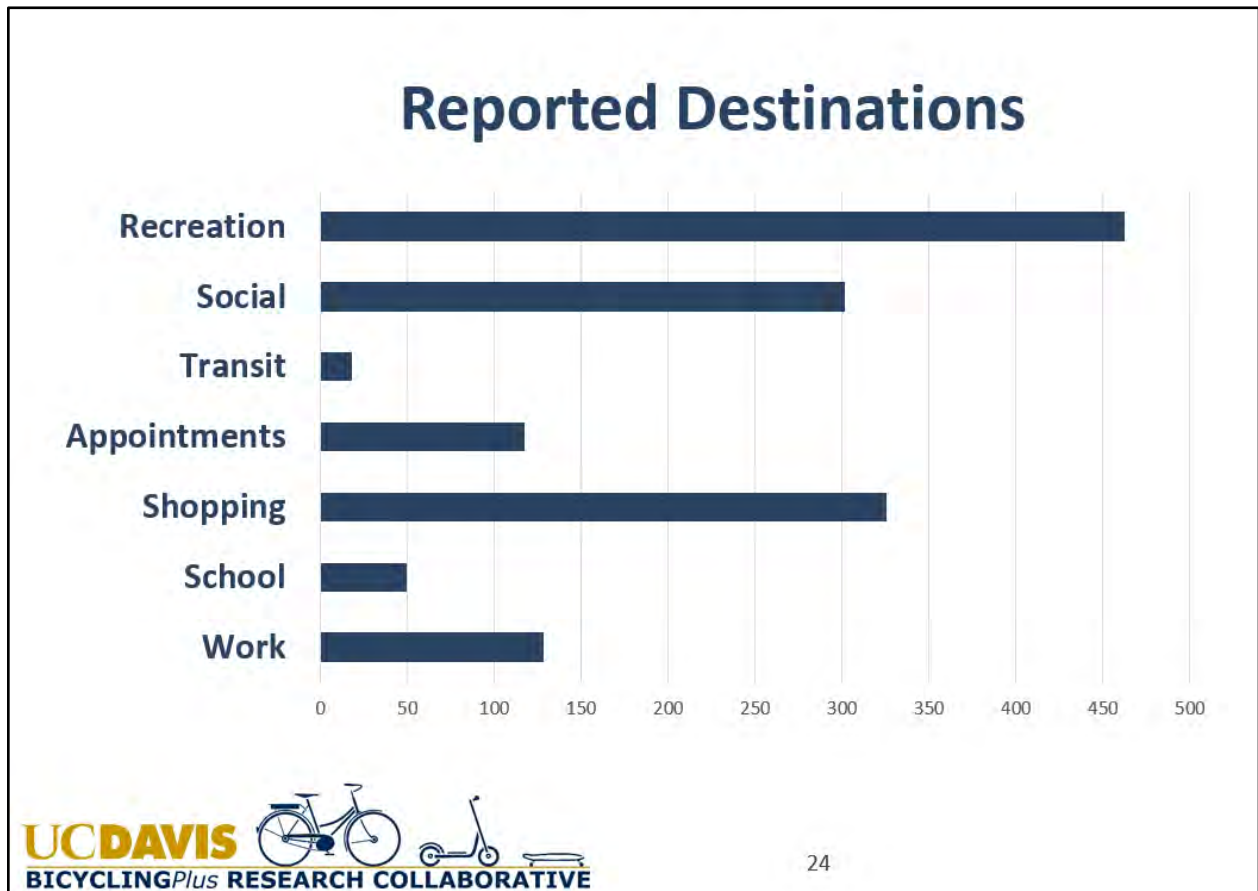
[Can an e-bike share system increase awareness and consideration of e-bikes as a commute mode? Results from a natural experiment](#)

all other UC Davis bike research is here: <https://bicyclingplus.ucdavis.edu/research>

I've [attached](#) a recent set of slides that my grad student (Nick Johnson) put together on our preliminary results on e-bike rebates in local CA program

4. Josh Sperling:

From slide deck, the shared–slide 34 sums it up well and perhaps can inform program design strategy



Some related questions in response to the key findings noted in slide 34 that may help to inform co-design of future programs:

E-bike's are replacing occasional car and/or motorcycle trips.

How many vehicle trips and vehicle miles being replaced?

How to further incentivize e-bike use as a primary mode for commuting with workplace 'employee' e-bike benefits programs?

Ownership of an e-bike seems to eliminate most transit trips.

Transit/DOT investments in e-bike friendly policies and/or infrastructure could help – e.g. scaling up safe e-bike storage facilities?

Our sample primarily uses their e-bike to travel for recreation. With social outings, work, and shopping also being notable trip purposes.

Explore extent to which sub-populations use e-bike for work vs recreation more? This may also shape what's prioritized/impacts for program e.g. GHG, access to jobs/opportunities, cost/time savings.

The greatest barrier to using their e-bikes more is a fear of vandalism and theft. Other barriers include: cargo, infrastructure, and weather.

Differences in perception and actual vandalism/theft between privately-owned vs. shared-use e-bikes?

Best opportunities for expanding/leveraging program for enabling parallel investment in infrastructure?

Enabling right balance of program targeting e-cargo bikes, income-qualified?

Understand /explore if individuals own or have regular access to a private motor vehicle?

From this article Dillon shares - [Modeling the impacts of electric bicycle purchase incentive program designs](#) - seems worth developing foundational data on price elasticity of e-bike demand for individually owned and shared services.

And lastly, an article that showed up in my inbox today

[Detroit's Bike Bet: How the Motor City Aims to Become the Mobility City: How Electric Bikes, a Community-Based Bike Challenge and Behavior Change Are Helping Detroit Prioritize People-First Mobility](#)

From: [Robyn Marquis](#)
To: [DEEP MobileSources](#)
Cc: [Al Beatty](#); [Alissa Burger](#); [Orville Thomas](#); [Elizabeth Szulc](#); [Ben Mandel](#)
Subject: Response to E-Bike Request for Information
Date: Wednesday, July 27, 2022 4:30:01 PM
Attachments: [CALSTART Comments on CT DEEP E-Bike RFI 7-27-2022.pdf](#)

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Good afternoon,

I am pleased to submit the attached comments to CT DEEP's Request for Information regarding the Electric Bicycle Program.

Please let me know if you require any additional information or need clarification on any of our comments.

Thank you for your consideration,

-Robyn

Robyn Marquis, PhD (*she/her*)

Director, Innovative Mobility

CALSTART | www.calstart.org

m: (917) 426-1330 | rmarquis@calstart.org

[Schedule a meeting with me](#)

Eastern Time Zone



July 27, 2022

Walter Barozi, Mobile Sources
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106

RE: Response to E-Bike Request for Information

**Clean Transportation
Technologies and Solutions**

www.calstart.org

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BAE Systems

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Ford Motor Company

Mr. Bob Wyman
Latham and Watkins

Dear Mr. Barozi,

On behalf of CALSTART, I am pleased to submit this response to the Connecticut Department of Energy and Environmental Protection (CT DEEP) request for information (RFI) on the development of an electric bicycle (e-bike) incentive program.

CALSTART is a globally renowned 501(c)3 nonprofit organization dedicated to the advancement of zero emission vehicle and infrastructure technology. For close to 30 years, CALSTART has been on the leading edge of forming innovative partnerships that spur the transformation of technology development and adoption. Through policy development, incentive administration, and first-of-its-kind partnerships, CALSTART has managed programs that drive the market for clean transportation technologies, which include clean mobility options and e-bike incentives, while working hard to achieve critical greenhouse gas and criteria emission reduction goals.

Q1. What are the best practices from other e-bike incentive programs?

Incentive Structure and Financing

The ideal incentive format for reaching low- and moderate-income (LMI) participants is a point-of-sale voucher or instant rebate. After-sale rebates, while sometimes easier to administer, require the recipient to pay a high upfront cost that may be out of reach for some. A point-of-sale voucher will require an existing relationship with the bike shop or online retailer accepting the voucher, which will help with quality control and troubleshooting issues, though this requires additional planning time before program launch to establish this network. This incentive model is common for electric vehicle purchasing support.

The voucher amount or percentage depends somewhat on program goals. A lower amount will potentially have a broader reach and lead to a larger emission reduction impact; however, that impact will be concentrated among participants who can afford most of the upfront cost. A tiered structure could address the dual goals of emission reduction impact and equitable mobility but adds complexity to the program. One approach would be to have one pathway for income-restricted applicants that funds a larger share of the e-bike, and a separate pathway with no income cap and a lower voucher amount. To prioritize LMI applicants, CT DEEP could expedite applications to the first pathway, or specify a minimum set-aside for this group. This approach would also simplify income verification, as only applicants to the income-restricted pathway would need to verify income. If the income cap for this group is aligned with other state



assistance programs, applicants who are already enrolled in another program could provide proof of enrollment to quickly verify income, minimizing the number of applicants who need to be independently verified.

Unless LMI applicants receive a 100% e-bike subsidy, some may need further assistance in financing the remaining upfront cost of the e-bike. To address this issue, CT DEEP could partner with one or more non-profit or B Corp finance institutions to provide low-interest or zero-interest loans. Distributing information for a network of trusted partners may help avoid predatory lending practices from other companies.

Partnerships

CT DEEP should cultivate a diverse bench of partnerships supporting the program, including bike shops, manufacturers of eligible e-bikes, local bike advocacy organizations across the state, and community-based organizations interested in promoting the incentive program to their stakeholders. A web-based mapping tool on the program website could be effective for prospective applicants seeking more information on partnership opportunities. Other potential partners may include employers who would like to promote the program to their employees, local and state agencies registering residents for assistance programs with similar eligibility criteria, and trusted non-profit financing partners. A strong base of partners should be developed before program launch, with the opportunity for new partners to register with the program on an ongoing basis.

Q2. How should DEEP determine the air quality benefit from program participation?

Two approaches to data collection for e-bike incentive programs are vehicle tracking and survey distribution. Each has benefits and limitations, but taken together these can capture many of the benefits of the incentive program.

Vehicle tracking via an internal or external device installed on the e-bike is the strongest method for capturing accurate quantitative data such as the number of trips taken, trip length and duration, and miles traveled. To ensure complete datasets, the tracker should be telematically connected and should collect and transmit data automatically. A third-party telematics company can obscure detailed trip location to protect user privacy, delivering only key metrics to the program administrator. Similar information can also be collected and reported by users through a mobile phone app, but this leaves room for error (e.g., the user may forget to turn on the app).

Vehicle tracking should not be mandatory, as this requirement may turn some prospective voucher recipients away from the program. Instead, the collection and use of the data should be clearly communicated during the application process, and an additional incentive could be offered in exchange for opting in.

Surveys are a useful supplement to vehicle tracking, as they can shed light on more qualitative aspects of program impact, clarify quantitative data (for example, trip purpose), and identify issues in the program design that need to be resolved. Two challenges related to surveys are the accuracy of self-reported data and low response rates. Response rates can be bolstered by offering an additional incentive and through partnerships. For example, bike shops could notify voucher recipients at the point of sale



that they will receive their first tune-up for free in exchange for completing a survey one year after purchase.

Q8. What other E-bike customer experiences should DEEP take into account?

Depending on roadway characteristics and level of experience, e-bike users may face safety risks when using an e-bike for regular transportation. The first line of defense against bike crashes and related injury is adequate infrastructure, including traffic calming roadway improvements and a robust protected bike lane network. While these may be out of scope for the CT Electric Bicycle Incentive Program, CT DEEP should align with other agencies to ensure the rollout of bike-supportive infrastructure aligned with the incentive rollout, particularly in environmental justice communities which often lack these protections.

Beyond infrastructure, rider education can be an effective tool in reducing injury risk. Some incentive programs have a mandatory education component, though any mandatory trainings will reduce the accessibility of the program and complicate the overall program structure. A brief safety orientation conducted at a bike shop during purchase would reach brick-and-mortar customers, and all voucher recipients could receive information about bike safety resources in their area, such as community organizations providing safety and maintenance education, trip planning and group rides. Safety equipment such as helmets and lights can also be included in the voucher.

Finally, the safety of the e-bikes themselves should be a priority. This is a challenge, as the e-bike industry currently lacks consistent safety and quality regulations. Some third-party organizations provide safety certifications, but these are fairly new and are not yet widespread. For example, a North American safety standard for e-bike electrical systems, UL 2849, as established in 2020 and addresses issues such as fire hazards related to battery charging. CT DEEP should follow the development of such safety standards and consider prioritizing or requiring such certifications in the long term.

Sincerely,

A handwritten signature in black ink that reads "Robyn Marquis".

Robyn Marquis, Ph.D.
Director, Innovative Mobility
CALSTART

From: [Thomas Lefebvre](#)
To: [DEEP MobileSources](#)
Subject: "Response to E-Bike Request for Information"
Date: Wednesday, July 27, 2022 4:56:41 PM
Attachments: [image001.png](#)
[image002.png](#)

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Hello,

Please find below some responses of the RFI on E-Bikes Vouchers.

Many thanks for your interest,

Thomas Regan-Lefebvre

(2) How should DEEP determine the air quality benefit from program participation?

I've been working with the [TRECH team](#) that models GHG mitigation and health benefits of various scenarios, including on the late TCI, and now on the introduction of electric school buses. Cooperating with these modeling experts may be helpful. Another idea, which has already been suggested, is to get data from the CT Rides App and communicate on it: "During this period X million of tons of CO2 have been saved thanks to E-Bikes Vouchers."

(11) Should DEEP seek to protect LMI participants from unfair or abusive finance terms? If so, how should DEEP do this?

Here we are assuming that all the actors will be good-faith actors but there is indeed the possibility of some customers – especially LMIs - being fleeced (as it is widely the case in the automobile industry).

Bike shops are not known to be predatory actors. Nonetheless, I suggest that in order for the vendor/bike shop to be participants to the program that they will have to apply and sign some kind of contract/charter that will clearly prohibit deceptive practices.

Regardless, the best way to protect LMI from unfair or abusive finance terms is to develop a "turn-key" program. Customers could apply online directly from the E-Bikes Voucher website (the Green Bank or Sustainable CT comes to mind as potential partners).

(12) If DEEP utilizes a voucher program, what length of time should be selected for the voucher expiration date?

Could be six months then – if unused – the customer could reapply.

How should vouchers be authenticated?

A QR code: safe, cheap, and everybody knows how to use them. →

Make sure that your website works well with mobile phones.

Thomas Regan-Lefebvre

Transport Hartford Academy Coordinator

Center for Latino Progress

95 Park Street, 2nd Fl.

Hartford, CT 06106

P. 860.206.5606 x.113

Zoom I.D. 919 892 4971

M. 508.863.9495



Responses to DEEP E-Bike Incentive Program Request for Information

From: [Tiffany Chang](#)
To: [DEEP MobileSources](#)
Cc: [Juliet Scott-Croxford](#)
Subject: Response to E-Bike Request for Information - Brompton Bicycle
Date: Wednesday, July 27, 2022 9:52:48 AM
Attachments: [image635042.png](#)
[image514277.png](#)
[image268504.png](#)
[image560203.png](#)
[image290635.png](#)
[image612701.png](#)
[Connecticut DEEP E-Bike RFI.docx](#)

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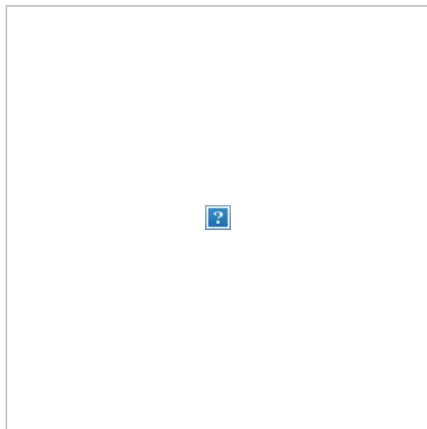
Hi Connecticut Department of Energy and Environmental Protection,

For DEEP's E-Bike Request for Information, Brompton Bicycle has compiled responses to relevant questions based on our product and experience within the cycling industry. Please see the attached document and feel free to follow up with any additional questions.

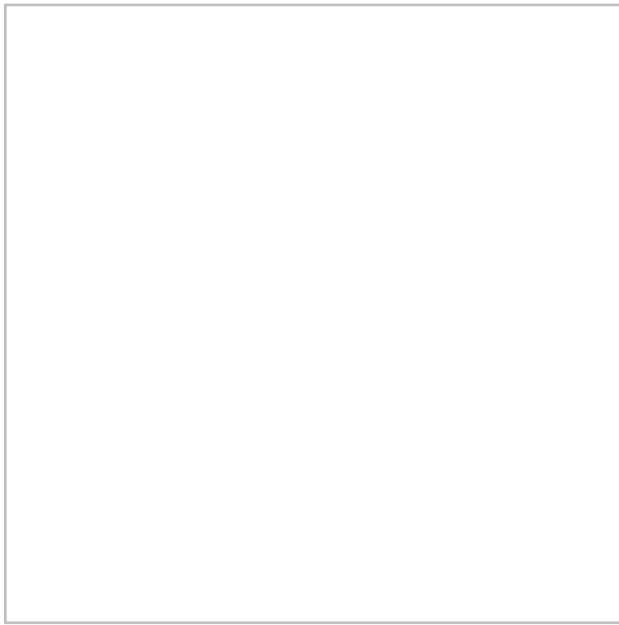
As a brand, Brompton's mission is to transform how people live and get around in cities. The Brompton bike was conceived as a product which would increase people's sense of independence and freedom, and this concept is still at the heart of everything we do. Established in 1975, Brompton is a highly respected British manufacturer of bespoke folding bikes, each bike being hand made in London, England. The Brompton is widely acknowledged as the finest bike of its type: cleverly designed, and beautifully made to be versatile, easy to use and durable. This excellence, combined with the resurgence in cycling for transport and leisure, means we are enjoying strong company growth with over 60% increase in sales over the past year.

Best,
Tiffany

Tiffany Chang | Marketing Manager |



Responses to DEEP E-Bike Incentive Program Request for Information



Head Office: Unit 1, Greenford Park, Ockham Drive, Greenford, Middlesex, UB6 0FD

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**Connecticut Department of Energy & Environmental Protection
Electric Bicycle (E-Bike) Incentive Program Request for Information (RFI)
Deadline: July 27, 2022 at 5:00PM ET.**

(1) What are the best practices from other E-bike incentive programs? Including, but not limited to: Answers bolded.

- a. Application processes (both on-line and in-person),
- b. E-bike Applicability,
- c. E-Bike retailer selection and inclusion,**
- d. Opt-in for customers to authorize contact by E-bike vendors,**
- e. E-bike Incentive levels,
- f. LMI income verification,
- g. Participant surveys.

(3) How many manufacturers produce E-bikes with a base MSRP of \$3,000 or less? Please include contact information, if available.

Brompton Bicycle produces two Electric bike models – the C Line Electric and P Line Electric. The C Line Electric has an all-steel frame at \$3,850 MSRP and P Line Electric has a titanium rear frame at \$4,700 MSRP.

(4) How many E-bike retailers are there in Connecticut? Please include contact information, if available.

We do not currently have any e-bike retailers in Connecticut, however Brompton has two standard bike retailers through The Devils Gear Bike Shop and College Street Cycles LLC. Address and contact information is below.

The Devils Gear Bike Shop
137 Orange Street, New Haven, 06510
+1 2037739288
<https://www.thedevilsgear.com>

College Street Cycles LLC
252 College St, New Haven, CT 06510
+1 2038652724
<https://www.collegestreetcycles.com/>

(5) How many E-bike retailers are there in on-line? Please include contact information, if available.

Brompton offers e-bikes online at www.us.brompton.com.

(6) What is the industry standard E-bike warranty?

Our standard Brompton warranty for e-bikes is a 7-year unlimited mileage warranty against manufacturing and material defects for the main frame components, commencing from the date of sale.

Other non-wearing parts on the bicycle (e.g. crank arms, brake calipers, mudguards, etc.) are covered by a 3-year warranty against manufacturing and material defects. Full warranty terms and conditions are [here](#).

(8) What other E-bike customer experiences should DEEP take into account? (e.g., return policy? Battery reuse or recycling programs)

Customer accessories are an important part of an E-bike incentive program. There are lots of accessories that customers need in order to get the most out of their bikes e.g. bags, helmets etc. About 50% Brompton customers purchase some form of accessory at the same time as their bike. This applies to our Electric bike purchases as well, even though we only have one bag option.

(9) How often are E-bike purchases financed?

Brompton has implemented Klarna financing in June 2022, we've noticed 29% of sales are from our Electric bikes.

(11) Should DEEP seek to protect LMI participants from unfair or abusive finance terms? If so, how should DEEP do this?

Brompton can offer lease and subscription as an alternative model for bike trial. Through this subscription model, there is the opportunity to purchase later on if desired. In the UK, our monthly or annual subscription model is the fully serviced Brompton bike package with all-inclusive servicing and repairs. We collect, deliver and provide a courtesy bike. As well, we offer a full Brompton service every six months.

(13) How should vouchers be authenticated?

Brompton envisions vouchers issued through company workplaces, public sector opportunities, or retailers.

(14) What other data/information would inform the development of an E-bike incentive program

Brompton Bicycle is a participant of the UK Cycle to Work Scheme, a government initiative which offers a tax-free benefit as the most cost-effective way to purchase a bike. Although this was not applied to e-bikes at the time, regular bikes were incentivized for purchase by employees. Employees do not have to pay tax or national insurance on their bike purchase, which creates a discount, and this deducted from their paycheck over a 12 to 18 month period.