

Date of Hearing: April 5, 2021

ASSEMBLY COMMITTEE ON TRANSPORTATION
Laura Friedman, Chair
AB 117 (Boerner Horvath) – As Amended March 24, 2021

SUBJECT: Air Quality Improvement Program: electric bicycles

SUMMARY: Establishes the Electric Bicycle (e-bike) Incentive Pilot Project. Specifically, **this bill:**

- 1) Adds incentives for purchasing e-bikes as a project eligible for funding under the Air Quality Improvement Program (AQIP).
- 2) Requires the California Air Resources Board (CARB) to establish the E-Bike Incentive Pilot Project under AQIP and administer the pilot project, until January 1, 2028.
- 3) Requires CARB to establish, through a public process, guidelines that achieve the following goals:
 - a. Maximize replacement of motor vehicle trips with e-bike trips.
 - b. Prioritize funding for individuals from low-income households. Also restrict eligibility based on income limits established in the Clean Vehicle Rebate Project (CVRP).
 - c. Support related programs and benefits, such as safety education, with up to 10% of pilot project funding.
 - d. Support local small businesses and nonprofit organizations, such as bike retail shops and community bike shops.
 - e. Collaborate with other state departments and agencies to enforce safeguards against fraudulent activities by sellers and purchasers of e-bikes.
- 4) Requires CARB to submit to the Legislature a mid-cycle and end-of-program evaluation of the pilot project, including:
 - a. The number of incentives issued.
 - b. The total cost of administration.
 - c. A quantitative analysis of the pilot project benefits and co-benefits, including the number of personal vehicle trips replaced, vehicle miles traveled avoided, and the amount of reduction in the emissions of greenhouse gases (GHGs).
 - d. A quantitative analysis of the impacts of the pilot project on low-income, medium-income, and high-income purchasers' decisions in the e-bike markets.
 - e. A quantitative analysis of how many applications were received from, and funding provided to, persons from low-income households.

EXISTING LAW:

- 1) Establishes AQIP, administered by CARB, with the primary purpose of funding, upon appropriation by the Legislature, air quality improvement projects relating to fuel and vehicle technologies that reduce criteria air pollutants, improve air quality. Also, funds research to determine and improve the air quality impacts of alternative transportation fuels and vehicles, vessels, and equipment technologies.
- 2) Establishes the Clean Cars 4 All Program (CC4A), administered by CARB, to focus on GHG emissions reduction, improvements in air quality, and benefits to low-income Californians through scrappage and replacement of high-polluter motor vehicles with cleaner and more efficient motor vehicles or a mobility option, such as an e-bike.
- 3) Defines “mobility option” for CC4A as a voucher for public transit, car sharing, bike sharing, or e-bikes.
- 4) Defines “e-bike” as a bicycle equipped with functional pedals and an electric motor capable of providing assistance only up to a certain speed, as specified.
- 5) Defines “low-income households” as those with household incomes at or below 80 percent of the statewide median income or with household incomes at or below the threshold designated as low income by the Department of Housing and Community Development’s list of state income limits.
- 6) Requires CARB to revise criteria for CVRP so that eligibility is limited based on income.

FISCAL EFFECT: Unknown

COMMENTS: *Committee comments:* This bill aims to create an incentive program similar to CVRP and provide rebates for e-bikes without the need to scrap an older vehicle. The Legislature has many different priorities to weigh when considering how to allocate scarce funding resources to improve air quality and address climate changes. These options should be considered holistically to identify the mix of programs that achieve those goals most effectively and equitably. Considering finite state funding, the Legislature may wish to establish this program, but hold off on funding it until more information is known about federal efforts currently underway to provide rebates for e-bikes.

Background: Evidence from a variety of research studies indicates that e-biking, more so than conventional biking, substitutes for car travel (Kroesen, 2017). A review of European studies found that the proportion of car journeys being replaced by bike journeys ranged from 16 to 76% (Cairns et. al, 2017). It should be noted that in some of these study areas, there are already relatively low levels of car driving, and high levels of walking, so sustainable mode-shift effects could be greater in other regions. In North America, a commonly reported motivation for purchasing an e-bike is to replace car trips (MacArthur, 2018), but only a few studies quantify the car substitution rate, ranging from 11 to 46% (Fitch, 2019).

According to retail tracking services, e-bike sales in the United States have experienced impressive growth, both before and since the pandemic began, with June 2020 reporting a 190% sales increase over June 2019. Providing financial incentives to purchase e-bikes can further help with adoption, but should be coupled with other strategies such as safe streets and trails on which

to ride. In 2017, the Legislature passed and the Governor signed SB 1 (Beall) Chapter 5, also known as the Road Repair and Accountability Act. SB 1 directs \$100 million annually from the Road Maintenance and Rehabilitation Account to the Active Transportation Program, significantly augmenting the available funding for active transportation infrastructure projects.

Unlike conventional bicycle costs, e-bike costs have been cited as one of the strongest barriers to adoption (Ling, 2017). E-bikes prices are coming down as the technology matures, but there is a wide range of prices depending on features. Entry level e-bikes cost around \$600, with higher-end “luxury” models topping out over \$10,000.

AQIP funds projects that reduce criteria air pollutants and improve air quality, along with certain related research projects. In developing guidelines for AQIP, CARB holds public hearings and workshops in northern California, southern California, and the Central Valley. CARB provides preference in awarding funding to projects with higher benefit-cost scores that maximize the goals of AQIP, but is limited to those projects explicitly called out in statute. Every year, CARB must submit a proposed Funding Plan to the board for approval. The funding plan serves as the blueprint for expending Low Carbon Transportation (Greenhouse Gas Reduction Fund) and AQIP funds appropriated through the budget process. Examples of projects that have been funded by AQIP include truck loan assistance, CVRP, Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP), Truck Filter Replacements, and others. AQIP funds have totaled \$25 to \$30 million per year over the past few years. The most recent AQIP funding plan dedicated almost all of the funds to HVIP. Note, this bill only establishes the option for e-bikes to be eligible for AQIP, but does not provide any funding for the program.

SB 400 (Umberg), Chapter 271, Statutes of 2019 expands mobility options under the Clean Cars 4 All Program (CC4A) funded by GGRF. CC4A allows income-eligible vehicle owners to scrap older, higher polluting vehicles and replace them with newer, cleaner hybrid, plug-in hybrid, and zero-emission vehicles (ZEVs). Beginning in 2021, CC4A provides participants the option to scrap an older vehicle and receive funding for an alternative transportation voucher that could be used for public transit, car sharing, or the purchase of an e-bike in lieu of a replacement vehicle. Proponents of incentives for e-bikes argue that the vehicle scrappage requirement is a barrier to widespread adoption of e-bikes. The program is currently limited to the participating air districts of South Coast, San Joaquin, Bay Area, and Sacramento, so residents in certain areas of the state will not be eligible for e-bike vouchers.

While CVRP has been effective in creating a market for ZEVs, it has come under criticism that many individuals receiving rebates are wealthy, living in affluent communities that, comparatively, experience better air quality than other areas of the state. In fact, research on vehicle rebate programs indicates that without income caps or mean-testing in general, financial incentives for ZEV purchases are inequitably distributed based on income and demographics (Borenstein and Davis, 2016; DeShazo, 2010; Diamond, 2009; Rubin and St. Louis, 2016). The literature also suggests that targeting larger incentives to low-income consumers (and other salient demographic groups) and capping purchaser income or vehicle manufacturer suggested retail price for rebate eligibility can improve ZEV purchase equity, make incentive programs more cost-effective, and increase total ZEV purchases (DeShazo, 2016; Skerlos and Winebrake, 2010). To address these concerns, income caps have been established; however, many have expressed concerns that even these caps are too generous.

This bill prioritizes incentive funding for individuals from low-income households. Going forward, the author might want to consider establishing a target for what percentage of the total program funding would be made available for low-income households. This bill also limits eligibility to individuals and households with incomes below the maximum limits established in CVRP. This structure is designed to ensure that e-bike incentives are not concentrated among high-income individuals, as were the early rounds of CVRP funding before the inception of means-testing requirements.

The federal government is currently pursuing tax incentives for e-bikes. Representatives Earl Blumenauer (D-OR) and Jimmy Panetta (D-CA) introduced the Electric Bicycle Incentive Kickstart for the Environment (E-BIKE) Act. They designed the new legislation to make e-bikes more affordable. If the E-BIKE Act is eventually signed into law, it would offer a 30% tax credit of up to \$1,500 for buying an electric bicycle. To qualify, the electric bicycle would have to be priced below \$8,000. The majority of electric bicycles sold in the US are priced below that level and thus would qualify for up to a \$1,500 tax credit.

According to the author, “As we continue electrifying transportation in California, we need to keep an eye to equitable incentives that help working Californians choose to get out of their cars. Many working families need to go on bicycle to get to where they need to go—for work, recreation—and, in many cases, this is their only reliable form of transportation. For many families, living in older, multifamily apartments, electric vehicles remain unattainable because there is no charging infrastructure where they can park. However, e-bikes are a more affordable and practical solution for solving the first/last mile problem, which in much of our state is a five mile problem. AB 117 will provide an incentive for electric bicycles, offering a more environmentally friendly alternative to encourage the expansion of biking as a viable form of transportation.”

In support a coalition of environmental and active transportation groups writes, “Increasing the number of trips that Californians make by bicycle, in combination with land use changes and improvements to walking and transit, is essential to achieving the reduction in VMT called for in SB 375, and is absolutely necessary if we are to achieve our GHG reduction goals. The emergence of e-bikes is hugely beneficial to this goal and should be bolstered. Unfortunately, the expense of an e-bike makes them inaccessible to low-income people and deters even middle-income people from buying an e-bike. The adoption rate of e-bikes in the U.S., as a proportion of the bicycle market, is a small fraction of the adoption rate in many other countries. Financial assistance is necessary at this stage to foster their adoption at the rate necessary to take advantage of their utility to help meet California’s climate, air quality, and health goals.”

Previous legislation: AB 2667 (Boerner Horvath) of 2020 stated the intent of the Legislature to enact future legislation to develop an incentive program within the Clean Vehicle Rebate Project for the purchase of e-bikes for the purpose of providing climate change benefits by reducing vehicle miles traveled. This bill was held at the Assembly Desk.

SB 400 (Umberg), Chapter 271, Statutes of 2019 expands the eligible modes of transportation for which the Clean Cars 4 All “mobility option” vouchers may be used to include bike sharing and e-bikes.

AB 630 (Cooper), Chapter 636, Statutes of 2017 establishes the Clean Cars 4 All program, providing drivers of high polluting vehicles financial incentives and support to switch to lower-emission vehicles or other modes of transportation.

AB 615 (Cooper), Chapter 631, Statutes of 2017 extended, until 2019, income caps for CVRP of \$150,000 for single filers, \$204,000 for head-of-household filers, and \$300,000 for joint filers.

SB 859 (Committee on Budget), Chapter 368, Statutes of 2016 established, until 2018, income caps for CVRP of \$150,000 for single filers, \$204,000 for head-of-household filers, and \$300,000 for joint filers.

REGISTERED SUPPORT / OPPOSITION:

Support

California Bicycle Coalition (Sponsor)
Active San Gabriel Valley
Asian Pacific Islander Forward Movement
Bicycle Kitchen/La Bici-Cocina
Bike Bakersfield
Bike East Bay
Bike Santa Cruz County
Bike SLO County
Bikerowave Co-op, Los Angeles
BikeSD
Bike Ventura
California Interfaith Power & Light
Climate Resolve
Coalition for Clean Air
Day One
East Bay for Everyone
East Side Riders Bike Club
Elders Climate Action, NorCal and SoCal Chapters
Glendale Environmental Coalition
Inland Empire Biking Alliance
Institute for Transportation and Development Policy
League of American Bicyclists
Los Angeles County Bicycle Coalition
Marin County Bicycle Coalition
Move LA
Napa County Bicycle Coalition
Natural Resources Defense Council
Northern California Power Agency
Pasadena Complete Streets Coalition
People for Mobility Justice
Rails to Trails Conservancy
Sacramento Area Bicycle Advocates
Safe Routes Partnership
San Diego County Bicycle Coalition

San Francisco Bicycle Coalition
San Jose Bike Clinic
Shasta Living Streets
Silicon Valley Bicycle Coalition
Sonoma County Bicycle Coalition
Streets Are For Everyone
Streets for All
Walk Bike Berkeley
Walk Bike Glendale

Opposition

None on file

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