
SENATE COMMITTEE ON ENVIRONMENTAL QUALITY

Senator Allen, Chair

2021 - 2022 Regular

Bill No: AB 117
Author: Boerner Horvath
Version: 5/24/2021
Urgency: No
Consultant: Eric Walters

Hearing Date: 7/12/2021
Fiscal: Yes

SUBJECT: Air Quality Improvement Program: electric bicycles

DIGEST: Add incentives for purchasing e-bikes as a project eligible for funding under the Air Quality Improvement Program.

ANALYSIS:

Existing law:

- 1) Establishes the Air Resources Board (ARB) as the air pollution control agency in California and requires ARB, among other things, to control emissions from a wide array of mobile sources and coordinate, encourage, and review the efforts of all levels of government as they affect air quality. (Health and Safety Code (HSC) § 39500 et seq.)
- 2) Establishes the Air Quality Improvement Program (AQIP), administered by ARB in consultation with local air districts, to fund programs that reduce criteria air pollutants, improve air quality, and provide research for alternative fuels and vehicles, vessels, and equipment technologies. (HSC § 44274 et seq.)
- 3) Defines electric bicycle to mean a bicycle equipped with fully operable pedals and an electric motor of less than 750 watts. (Vehicle Code § 312.5)

This bill adds incentives for purchasing e-bikes as a project eligible for funding under AQIP.

Background

- 1) *AQIP*. First appropriated in 2009, AQIP funds projects that reduce criteria air pollutants and improve air quality, along with certain related research projects. ARB 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. Eligible projects cover the whole range of

technology readiness, spanning precommercial demonstrations, early commercial pilots, broad purchase incentives, fleet turnover, and financing assistance for fleets. Examples of projects that have been funded by AQIP include truck loan assistance, the Clean Vehicle Rebate Project (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.

- 2) *Where do e-bikes come in?* E-bikes have been hailed as a new form of active transportation that will substitute for single occupancy vehicle trips. Studies have looked into this and found that only partially true, but the data is patchy and mostly related to European users. A relatively recent study from the Netherlands reports that e-bike trips only significantly reduce conventional bicycle trips, though there was some substitution of e-bike trips for car trips. An earlier analysis, also from the Netherlands, found that e-bike ownership strongly reduces the use of conventional bicycles but also, to a lesser extent, car and public transport use. It also found that at the level of vehicle ownership, e-bikes substitute for conventional bicycles but not cars.
- 3) *What's the hold up?* E-bikes have seen their popularity surge in recent years, growing 145% from 2019 to 2020. However, their cost still greatly exceeds that of conventional bicycles and remains a barrier for adoption. The electric assist extends the range, speed and usefulness of the vehicle though at a substantial price increase. The minimum price for an e-bike is about \$600 though more typically \$1000 and easily over \$2000.

Comments

- 1) *Purpose of Bill.* According to the author, “As we continue electrifying transportation in California, we need to keep an eye to equitable rebates that help working Californians chose to get out of their cars. Many working families need to go on bicycling 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 a rebate for electric bicycles offering a more environmentally friendly alternative to encourage the expansion of biking as a viable form of transportation.”

- 2) *A matter of air quality.* By definition, AQIP is focused on air quality improvements. Unlike GHG emissions, which have an impact on global climate change, the effects of other air pollutants tend to be more local. Some of the most harmful air pollutants—including NO_x and diesel particulate matter—are primarily from heavy-duty vehicles. For example, according to a 2020 Environmental Defense Fund report, delivery trucks and tractor trailers are only about 4% of the vehicles on the road, but emit almost half the transportation sector NO_x pollution. This disproportionality is reflected in recent AQIP funding plans; programs to get polluting heavy-duty vehicles cleaned up or off the road tend to be the most direct way to reduce harmful air pollutants. These vehicles and use cases are not the types expected to be replaced by e-bike trips.

Ultimately, AB 117 does not direct or require ARB to provide AQIP funding for e-bike purchases. The bill simply adds e-bike incentives as an eligible project under AQIP. E-bikes would not be expected to receive the lion's share of AQIP funding, but there is no obvious problem in making them eligible for it. Getting more Californians out of their cars and using active transportation would be a considerable benefit to public health, and the author's goal to incentivize getting more e-bikes in use is laudable.

Related/Prior Legislation

AB 2667 (Boerner Horvath, 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, 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, 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.

SOURCE: California Bicycle Coalition

SUPPORT:

Active San Gabriel Valley
Asian Pacific Islander Forward Movement
Better World Group; the
Bicycle Kitchen/la Bici-cocina
Bike Bakersfield
Bike East Bay
Bike Santa Cruz County Education Fund
Bike Slo County
Bikerowave Co-op, Los Angeles
Bikesd
Bikeventura
Breathe California
CA Coalition for Clean Air
Calbike
California Electric Transportation Coalition
California Interfaith Power & Light
Calstart
Circulate San Diego
City and County Association of Governments of San Mateo County
City of Alameda
City of Los Angeles
Climate Resolve
Day One
East Bay for Everyone
East Side Riders Bike Club
Elders Climate Action, Norcal and Social Chapters
Glendale Environmental Coalition
Inland Empire Biking Alliance
Institute for Transportation & Development Policy
League of American Bicyclists
Local Government Commission
Los Angeles County Bicycle Coalition
Los Feliz Neighborhood Council
Marin County Bicycle Coalition
Move LA
Napa County Bicycle Coalition (napa Bike)
Natural Resources Defense Council (NRDC)
Northern California Power Agency
Oakland; City of
Pasadena Complete Streets Coalition
People for Bikes
People for Mobility Justice
Rails-to-trails Conservancy
Sacramento Area Bicycle Advocates

Safe Routes Partnership
San Diego Association of Governments
San Diego County Bicycle Coalition
San Francisco Bicycle Coalition
San Jose Bike Clinic
San Jose; City of
Shasta Living Streets
Silicon Valley Bicycle Coalition
Sonoma County Bicycle Coalition
Streets are For Everyone (SAFE)
Streets for All
Walk Bike Berkeley
Walk Bike Glendale
1 individual

OPPOSITION:

None received

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