

Proposed Changes to the California Vehicle Code (CVC) for Light Electric Vehicles (LEV)

Introduction and Summary

To promote zero-emission, domestically-powered, appropriately-sized electric vehicles, the Light Electric Vehicle Association recommends changes to the CVC that will simplify the rules, reduce barriers, and fairly treat LEVs as viable transportation alternatives.

To simplify the rules, lower-speed vehicles are classified by their speed rather than their physical characteristics. Section 407, for example, limits the speed of an electric bicycle to 20 mph regardless of its number or size of wheels. Speed limits of 30 mph and 45 mph are set for other vehicle types.

Section 407.5 updates the definition of “electric scooter”, and subsequent sections treat them like electric bicycles – instead of very differently as is currently done. Unlike cars, that provide users with power and speed far beyond human abilities, both electric bicycles and low-speed electric scooters simply allow the user to easily do what now requires more effort. As such, these changes allow electric bicycles and low-speed electric scooters to go wherever pedal bikes go – including on bike paths.

Section 12804.9 reduces a barrier to riding a 30 mph “motorized bicycle” or moped by removing the need to pass special written and driving tests at the DMV office to get a Class M2 certification added to a basic Class C driver’s license. After enactment, anyone licensed to drive large SUVs may also drive a moped.

A class of medium-speed vehicles is created that operate upon highways at speeds up to 45 mph. Also known as city cars or local use vehicles (LUV), such vehicles must incorporate all D.O.T.-approved low-speed vehicle safety equipment. Additionally, each must also have a roll cage or crushproof body design, windshield wipers, horn, and, if electrically powered, protection from electrolyte spillage and electrical shock protection. (Sec. 385.7)

Significant changes include:

1. The definition of an “electric bicycle” is clarified, distinguished from motorized bicycles (mopeds), usage requirements listed, and granted legal parity with bicycles. (Sec. 407 and 21200-21202)
2. The definition of an “electric scooter” is clarified, usage requirements listed, and granted legal parity with bicycles. (Sec. 407.5 and 21200-21202)
3. The definition of a "motor-driven cycle" is simplified to be a two- or three-wheel vehicle with a maximum speed between 30 and 45 miles per hour. (Sec. 405)

4. A moped is exempted from registration. (Sec. 4020)
5. A moped needs a special license plate and turn signals. (Sec. 5030 & 24951)
6. Your basic Class C driver's license plus moped insurance allows you to ride a moped by removing the requirement for an M2 certification. (Sec. 12804.9)
7. Medium-speed vehicles are defined (392) and restricted from highways with speed limits above 45 miles per hour. (Sec. 21250-21261)
8. Noise limits are reduced from 80 dbA to 78 dbA for motorcycles, motor-driven cycles, and mopeds manufactured after 2013. (Sec. 27202)
9. Drivers and passengers of mopeds may use a bicycle helmet. (This section replaces outdated language that was written before safe ASTM bicycle helmets existed.) (Sec. 27802 , 27802.5, 27803)
10. The definition of a "bicycle" is simplified and expanded to include stand-up and sit-down human-powered scooters. (Sec. 39000)

Other proposed changes to CVC sections simply clean-up references to these various vehicle types. For the specific CVC changes desired, read "Proposed Changes to the California Vehicle Code (CVC) for Light Electric Vehicles (LEV)" at <http://www.electric-bikes.com/cvc-specifics.html>

Also, you can test your knowledge of existing rules at:
<http://www.electric-bikes.com/cvc-survey.xls>

Additional background on medium-speed vehicles

The existing class of low-speed vehicles, commonly known as Neighborhood Electric Vehicles (NEV), must incorporate Federal Motor Vehicle Safety Standard (FMVSS) No. 500 (49 CFR 571.500). The FMVSS 500 specifies basic safety equipment including lights (head, tail, and signal), reflectors, rear-view mirrors, windshields, windshield wipers, parking brake, and seat belts on motor vehicles whose maximum speed is between 20 and 25 miles per hour. The purpose of this standard is to ensure that low-speed vehicles operated on the public streets, roads, and highways are equipped with the minimum motor vehicle equipment appropriate for motor vehicle safety.

Low-speed vehicles have top speeds of 20-25 mph and weigh less than 2,500 pounds. While "low-speed vehicle" is the technically correct term in the CVC, "NEV" has become the term used by industry and fleets to refer to passenger vehicles subject to FMVSS 500. About 40 states have passed legislation or

regulations allowing NEVs to be licensed and driven on roads that generally are posted at 35 mph or less.

The states of Kentucky, Maryland, Minnesota, Montana, Oklahoma, Oregon, Texas, Tennessee, and Washington all now have laws that allow for Medium Speed Vehicles with top speeds of 35 mph to 55 mph. Colorado has passed a law allowing MSVs that travel up to 45 mph on roads with posted limit of 45 mph or less once DOT adopts standards. Additional states are considering such measures. Let's add California to that list!

Insurance Notes

Due to limited experience with - and loss statistics on - light electric vehicles, we recommend each state closely monitor insurance rates and actual costs for these vehicle classes so that premiums are appropriately adjusted to remain in line with actual costs. At least three methods to accomplish this goal are available:

- 1) Socialize vehicle insurance as is done for the insurance we provide to our elderly, widows, orphans and disabled with Social Security;
- 2) Institute a single-payer insurance model similar to Medicare;
- 3) Set a legal limit of 20% or less on the amount of overhead that companies can add to their actual payout costs.

In conjunction with such a public safeguard, LEVA recommends that moped cyclists obtain a minimum PL/PD insurance level of \$15K/person (\$30K/accident) / \$10K property.