

Department of Legislative Services  
Maryland General Assembly  
2014 Session

FISCAL AND POLICY NOTE  
Revised

Senate Bill 378

(Senator Conway)

Judicial Proceedings

Environmental Matters

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Vehicle Laws - Electric Bicycle - Definition

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This bill expands the definition of “bicycle” in the Transportation Article to include an electric bicycle. It establishes that an electric bicycle is a vehicle that is designed to be operated by human power with the assistance of an electric motor and is equipped with fully operable pedals. An electric bicycle has two or three wheels, has a motor with a rating of 500 watts or less, and is capable of a maximum speed of 20 miles per hour on a level surface when powered by the motor. The bill also excludes an electric bicycle from the definitions of “moped,” “motorized minibike,” and “motor vehicle.”

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Fiscal Summary

**State Effect:** None; any related enforcement can be handled with existing resources. No material effect on revenues.

**Local Effect:** None; any related enforcement can be handled with existing resources.

**Small Business Effect:** None.

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Analysis

**Current Law:** A “vehicle” is any device (except an electric personal assistive mobility device) in, on, or by which an individual or property may be transported or towed on a highway.

A “bicycle” is a vehicle that (1) is designed to be operated by human power; (2) has two or three wheels, with one being more than 14 inches in diameter; and (3) has a drive mechanism other than pedals directly attached to a drive wheel.

A “moped” is a bicycle with pedals and either two or three wheels (one of which is at least 14 inches in diameter), and which is assisted by a motor of at most 1.5 horsepower, or 50 cubic centimeters capacity if the motor is an internal combustion engine.

A “motorized minibike” is a motor vehicle with two or three wheels but is not required to be registered with the Motor Vehicle Administration (MVA). It does not include a motor scooter, a moped, or a farm tractor.

A “motor vehicle” is a vehicle that is self-propelled or propelled by electric power obtained from overhead electrical wires and is not operated on rails. A motor vehicle includes a low-speed vehicle. A motor vehicle does not include a moped or motor scooter.

Except for a moped, a certificate of title is not required by the Maryland Vehicle Law for a bicycle. A moped is not considered a bicycle for the purposes of those provisions which authorize a person, if allowed by local ordinance, to ride a bicycle, play vehicle, or unicycle on a sidewalk. The Maryland Vehicle Law requires any person riding a moped to wear a helmet; whereas for bicycles, helmets are only required for riders and passengers who are younger than age 16. The Maryland Vehicle Law also requires moped operators to carry insurance, as specified, but does not impose a similar requirement on the riders of bicycles. Moreover, the Maryland Vehicle Law requires an operator of a moped to either have a driver’s license or a moped operator’s license.

The requirement to wear a helmet for a person younger than age 16 applies whether the person is operating the bicycle or riding as a passenger and at all times while a bicycle is being operated on any highway, bicycle way, or other property open to the public or used by the public for pedestrian or vehicular traffic. However, this requirement does not apply in Ocean City, Maryland, on the boardwalk between the Ocean City inlet and 27<sup>th</sup> Street, during the hours when bicycles may be operated on the boardwalk, as permitted by local ordinance.

Except as otherwise provided, every person operating a bicycle or motor scooter in a public bicycle area has all the rights and is subject to all the duties required of a driver of a vehicle, including the duties to exercise due care to avoid collisions, to warn pedestrians, and to exercise precaution when encountering children or incapacitated individuals. This obligation does not apply for those provisions that, by their very nature, cannot apply to bicyclists and motor scooter operators.

**Background:** According to the electric bicycle industry, some form of motorized bicycle (often called electric bicycle or e-bike) has been in existence since the late nineteenth century. As of the twenty-first century, many different types of electric bicycles are available for purchase. Some e-bikes have only a small motor to assist the

rider's human power (this type is often referred to as a pedelec), while other e-bikes are more powerful and similar to mopeds in functionality. All e-bikes, however, retain the ability to be pedaled by the rider, which distinguishes them from electric motorcycles. E-bikes generally use rechargeable batteries. Pedelecs generally can achieve speeds of 16 to 20 miles per hour, while the more powerful e-bikes can achieve speeds of up to 30 miles per hour. In some European countries, such as Germany, and also in China, e-bikes are reportedly gaining popularity as alternatives to fossil-fueled motorcycles, since they are considered zero-emission vehicles.

In the United States, the National Highway Traffic Safety Administration has determined that e-bikes and e-tricycles meet the definition of low-speed electric bicycles and are under the jurisdiction of the Consumer Product Safety Commission, just as traditional bicycles.

States have taken a varied approach to the regulation of e-bikes. In some states, they are regulated as mopeds or motor scooters. In states where they are specifically defined, they are more likely to be regulated in a manner similar to traditional bicycles. At least 20 states define electric bicycles.

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### Additional Information

**Prior Introductions:** None.

**Cross File:** None designated; however, HB 205 (Delegate K. Kelly, *et al.* – Environmental Matters) is identical.

**Information Source(s):** Judiciary (Administrative Office of the Courts), Department of State Police, National Highway Safety Administration, Consumer Product Safety Commission, [www.bicycleretailer.com](http://www.bicycleretailer.com), [www.vicroads.vic.gov.au](http://www.vicroads.vic.gov.au), [www.wikipedia.org](http://www.wikipedia.org), Department of Legislative Services

**Fiscal Note History:** First Reader - February 16, 2014  
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