



E-bikes - Key Questions and Answers & Talking Points

Which states have a three class e-bike system?

As of 2020, 26 states (Arizona, Arkansas, California, Colorado, Connecticut, Georgia, Idaho, Illinois, Indiana, Maine, Maryland, Michigan, New Hampshire, New Jersey, New York, Ohio, Oklahoma, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Washington, Wisconsin and Wyoming) have passed laws that define three classes of e-bikes in their traffic statutes.

Why is the top speed for Class 3 e-bikes 28 MPH?

In Europe, the classification that is equivalent to a class 3 e-bike is “speed pedelec.” Under European rules, speed pedelecs are limited to a top assisted speed of 45 KPH, which is equivalent to 28 MPH. Therefore, these rules provide uniform product standards between the European and U.S. markets.

I have read the federal definition of an e-bike and it says that the top speed is 20MPH. How are class 3 e-bikes legal given the federal definition?

The federal definition uses very specific language to delineate the top speed of e-bikes. The 20 MPH threshold applies when the e-bike is being operated “solely” under motor power. However, e-bikes are most commonly ridden under a combination of human and motor power. The federal definition does not provide a top speed for when an e-bike is being operated under combined human and motor power. The class 3 definition clarifies this ambiguity by specifying the maximum assisted speed for e-bikes at 28MPH.

Can e-bikes be safely operated on bike paths?

Yes. Researchers who have compared riders of e-bikes and regular bikes at the University of Tennessee observed that e-bikes riders exhibit similar safety behavior as riders of traditional bicycles. Perhaps most importantly, e-bike riders traveled at similar speeds to riders of human powered bicycles. They rode slightly faster when riding on the road (1.8 mph), but actually slower than regular bikes riders when on bicycle paths (1 mph).

Why not regulate e-bikes at the federal level?

E-bikes have been regulated federally since 2002. However, as with other consumer products, the federal regulations are limited to product safety. They do not specify where e-bikes may be ridden or what rules of the road govern their use. While the federal government can intervene in these matters in very rare situations, the rules of the road are generally a matter of state law. Other emerging technologies have followed the same path of creating new state traffic laws to address the use of these devices on our streets. This includes segways, autocycles, and commercial quadricycles.

How can anyone tell what an e-bike is?

E-bikes are becoming more and more difficult to distinguish from regular bicycles. The labeling requirement in the model bill is a proactive measure on behalf of the industry to ensure that law enforcement or land managers can easily tell that a bicycle is in fact an e-bike, and quickly assess which type of e-bike it is.

Can people tamper with e-bikes?

Like other mechanized or motorized devices, it is possible that a user could tamper with an e-bike. We have inserted a tampering provision in the model bill that will place the onus on the owner to have a properly labeled bike if that were to occur. If someone was to tamper with an e-bike and create a machine that can travel faster than any of the specified classifications of e-bikes, they would presumably be operating an unlicensed and unregistered vehicle, and would be subject to any applicable penalties.

Who is the typical purchaser of an e-bike?

E-bikes are enjoyed by people from all walks of life. E-bikes make riding a bicycle for fun, commuting or transportation easier and faster and provide an affordable and competitive transportation option. E-bikes are also a dependable option for people limited by fitness, age, or disability; as well as for those who traditionally drive to work in the 5-20 mile range.

How many e-bikes are sold each year in the U.S.?

While our data on this is imperfect, approximately 260,000 e-bikes are sold annually in the U.S. However, they are the fast growing segment of the bicycle sales, with approximately 75% year over year growth.

How much do e-bikes cost?

Entry-level e-bikes are about \$1,500. High-end e-bikes can cost \$8,000 or more.

Why distinguish between class 1 and class 2 e-bikes in the bill if the rules are the same?

The distinction between these two types of e-bikes provides for greater local flexibility. Some municipalities have demonstrated an interest in prohibiting throttle-powered e-bikes from certain types of infrastructure, and this bill provides the flexibility to take those measures if they are desired on a local level.

Does the rider have to be pedaling for the e-bike's motor to be engaged?

It depends on the type of e-bike. For Class 1 and Class 3 e-bikes, the rider must be pedaling for the motor to be engaged. For Class 2 e-bikes, the motor can propel the e-bike without the rider pedaling.

Talking Points

E-bikes are safe and travel at bike-like speeds.

- Class 1 e-bikes have a motor that cuts off after the rider reaches 20 mph. This is not the average speed.
- Studies show that e-bikes do not travel significantly faster than regular bicycles and in some instances, are slower, depending on the location and the rider (see: peopleforbikes.org/e-bikes).
- In general, on flat and uphill surfaces, e-bikes travel on average 2-3 mph faster than traditional bicycles.
- E-bikes have to be labeled by their class, which helps enforcement officers.
- No studies or instances have shown that e-bike ridership decreases public safety, and there are zero documented cases of e-bike crashes that have resulted in death or serious injury in the U.S.
- As with any vehicle or consumer product, responsible use and riding rests on the user.

- If public safety is a concern, proper education and enforcement should be implemented.

People who ride e-bikes are responsible riders

- In 2016, e-bikes represented 1% of sales in the bicycle market. So far in 2017, e-bikes represent 7% of the market.
- The typical rider is 45 – 65 years old and generally uninterested in reaching high speeds or passing other trail users without proper warning or slowing down.
- E-bike users, like the majority of any user group, respect the law of the road and are kind to others with whom they share public resources.
- Ridership and engagement is increasing, and people are using e-bikes to replace vehicle trips and augment existing bicycle trips.

E-bikes are sustainable, convenient, and for everyone

- Please ride one to understand e-bikes uses, limitations, and that they are not motorized vehicles in the same vein as gas-powered vehicles. They are emissions-free, low impact, and silent.
- E-bikes decrease reliance on gasoline-motor vehicles and provide an affordable and competitive transportation option for people who can't afford the high cost of car ownership.
- E-bikes make riding a bicycle for fun, commuting, and transportation easier and faster, and allow current bicycle users to bike more often and farther.
- E-bikes are a dependable option for people limited by fitness, age, or disability; and whose work commutes are within the 5-20 mile range and who traditionally drive.