



(https://www.electricbike.com/wp-content/uploads/2013/04/Pedego-Interceptor-

03972.jpg)

## Is My E-Bike Legal? USA Ebike Law

📅 April 23, 2013

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👤 Eric Hicks (https://www.electricbike.com/author/rustychainorg/)

Disclaimer. This article is not written by a lawyer, and in no way constitutes legal advice. This article is intended only as a guide to how to look up information that will allow an individual to understand their local laws pertaining to operation of electric bikes. This story was submitted by non-lawyer Dogman, our electric bike commuting guru, and electricbike.com staff writer.

### USA Ebike Federal Law



In the USA, it can get very confusing to understand what is legal and what is not, with an electric bicycle. Part of the confusion is caused by the Federal law, which has often been quoted by people selling electric bikes. To begin with, this federal definition applies only to selling an e-bike. As a retailer, it matters to your insurance company whether you are selling a "bike", a "motorcycle", or some vaguely defined toy.

For what its worth, if you are selling an e-bike, the consumer product safety act **HR 727 defines an e-bike as—**

**Two or three wheels**

**Fully operable pedals**

**750 watts maximum**

**Maximum speed of less than 20-MPH on the motor only, on level ground, with a 170 pound rider.**

## State Bicycle Laws



That's nice, but it really has nothing whatsoever to do with the law that applies for you to actually go out and ride your e-bike on the street in the United States.

To find out if you can ride your bike on a public roadway, you have to look up your own state motor vehicle statutes. Yes, even though **your state may not call your e-bike a motor vehicle, it will still need to obey the traffic laws. Regular bicycles have to obey traffic laws,** as do people on horses, or even pedestrians. Your local state may have very definite rules as to what is an e-bike, what is a moped, and what is a motorcycle. You may need a drivers license to ride an e-bike, or maybe not, depending on the exact wording of your local state motor vehicle statutes.

You might want to take a quick look at Wikipedia for a quick overview of the e-bike laws in various states, and in countries other than the USA. Bear in mind, "you can't lie on the internet" LOL. The summaries of the laws on the wiki are just your starting point, to get an idea what your states attitude to e-bikes is. Many other sites have edited versions of your local laws, and many of them will be incomplete. They may not mention things like use of a helmet, needing a registration, etc.

**Wikipedia defintion of electric bike laws** ([http://en.wikipedia.org/wiki/Electric\\_bicycle\\_laws](http://en.wikipedia.org/wiki/Electric_bicycle_laws))

Your best approach is to go directly to your states motor vehicle department website, and get a copy of the your local state vehicle codes, with NO EDITING. Only a recently updated official state vehicle codes will contain all the *latest* changes to the laws. Other websites may have edited versions of the state codes, which may not contain the sections that apply to e-bikes. Or the version may simply be out of date. Even at the official state websites, you might not be getting all the information at once. Various laws that apply to your e-bike are usually scattered in different sections of the code.

Start with definitions, and look for definitions of various things. Bicycle, Scooter, Motorcycle, Moped, Bicycle with helper motor, Motor driven cycle, those kinds of things. Figure out which one describes your e-bike best.

Then, usually in a completely different section of the codes, look for rules that pertain to getting it a license plate or registration or not.

If you must register it, chances are you may need to have a drivers license to operate it on the public roadways. So look in those sections of your vehicle codes to see what kind of license you need if any. Look up the definition of public road too. It could matter.

Lastly look for any other codes that apply to operation of the type of vehicle you have. You may find that helmets are required for those under 18, or whatever. Remember, if you have decided that your vehicle fits the definition of "bicycle" then ALL laws applying to bicycles apply to you. So you might need a light after dark. You might be required to have *pedals* (some builds have used a bicycle frame

to essentially make a scooter). You may or may not be legal to ride on the sidewalk, or the hiking trail.

This quickly got pretty complicated didn't it? If it really matters to you that you *NOT* get a ticket, you might just want to gather the information and show it to your lawyer. This could be VERY important if you have gotten your drivers license revoked for some reason, and don't want a ticket for riding a bicycle to ruin your chances of ever getting it back (we have found drivers with a DUI using an E-bike to get to work. OK in *some* places, NOT OK in others). One thing is for sure, if you walk into court the judge is not going to care one bit about the federal consumer product definition of a low speed electric bicycle. Only the local state motor vehicle code matters.

Does any of this matter? That's a valid question. Where I ride, the cops sure do ignore me. If your local cops don't care, why should you? I can't say if you should care or not, but I can say you should at least know if you are legal or illegal. You should not ride any different either way, but it's always good to know where you stand.

## Lifeforphysics on Ebike Law



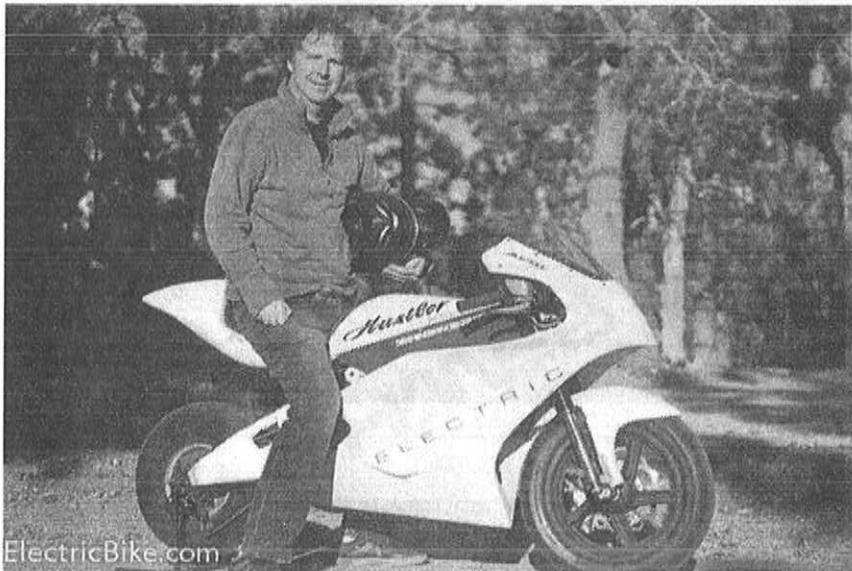
At this point I would like to quote what electric bike legend Liveforphysics said when it comes to ebike law: *"It's an ebike if you can ride it past a cop and not get stopped."*

This is real wisdom, and there is a lot of sense in this short and sweet sentence.

Ebikes that look like motorcycles (such as Vespa style scooters with pedals) *WILL* get you pulled over. If it looks like it needs registration and tags... a cop will assume you are riding it illegally without them:



And motorcycle looking contraptions such as the Hanebrink Hustler (read article (<https://www.electricbike.com/hanebrink-hustler-x5/>)) which looks like a motorcycle and is 60-MPH fast...will get you pulled over...even if it has pedals hidden under those fairings:



Common sense says that the more your ebike looks like a bicycle, the better your chances of passing by a cop without getting pulled over.

And if you choose to ride in a provocative manner...*expect* to be pulled over.

Even what you choose to wear can effect if cops give you a second look or not. Riding with no helmet, or riding with a full faced helmet (even though safer) can draw unwanted police attention to you.

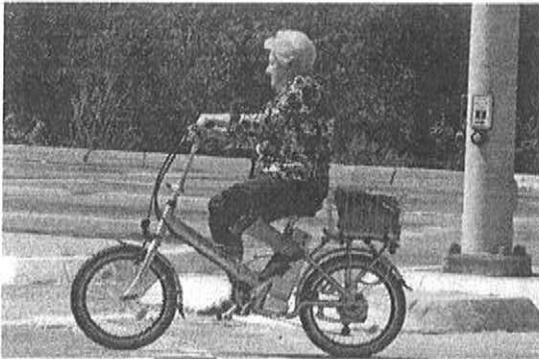
Here is a guy who has gotten all these tickets riding a scooter-looking contraption around his city...If you look like this guy, and ride a scooter that looks like his...*expect* trouble.

Appearances really matter. Police are quick to judge if you are "good" or you are "bad".

Here is an example of a trouble maker. He got all these tickets because of the sinister way he presents himself on that green "electric bike".



Here is an examples of a "Good" presentation. This woman has serious promise to ride by scott free...even if she is not wearing a helmet, even if she is obviously riding an electric bike. As long as she obeys the traffic laws she should have no problem.



### Riding Like a Hooligan



Speaking of Liveforphysics, riding like a hooligan can quickly get you in trouble if you ride past the police in a provocative manner. Manuevers such as the one pictured above should only be used off the road ways. Use a lot of common sense. If you are moving fast it is a good idea to be pedaling fast so you appear like you are just an *athletic* bicycle rider.

Please ride like a normal bike rider, not like a hooligan. Even if you left your hooligan days behind you 30 years ago, you never know, you *could* get into an accident. Or, your town might have *one* cop who just hates bicycle riders. My town had one that *lived* for just one thing, ticketing bicycles going faster than 15 mph or passing a car in a school zone. You might not be able to talk yourself out of a ticket, but it sure helps to have some idea if you are really legal or not.

Some people will want their e-bike to appear like a normal bike just to avoid any possibility of having a problem. To me, this is not needed if you are riding a street legal e-bike. But this brings up a persistent problem in some places. E-bikes that look like gasoline powered scooters. Many riders have encountered police that cannot be convinced that they can fit the legal definition for a bicycle. Whether they are bicycles or not is defined by the local motor vehicle codes. Or, they may not. In some states, there is no such thing as an e-bike defined in the codes. Either way, you can encounter police who either don't know their e-bike law, or just ticket you because of their opinion about e-bikes that look like scooters. Cops ticket, Judges sort it out later. Looking like a normal bike and staying under the police radar can save you some trouble. If you have a scooter type e-bike, then it's worthwhile to know the law, and possibly even carry copies of the law that makes your bike a legal bicycle.

## Local Laws



One last thing to consider is your very local laws. Counties, Parishes, Towns, Cities and even park managers, can also regulate bikes, e-bikes, mopeds, etc at the local level. You may have local laws about mopeds or motor vehicles on the, hiking, bike or multi-use trails for example. Pay particular attention to the exact wording of the signs if any. "No Motor Vehicles", does not ban an e-bike IF, your state does not define an e-bike as a motor vehicle. If a sign says "No Motorized Vehicles", then your e-bike is a lot more likely to fit that definition and not be allowed on the trail. Local differences exist. Your multi-use beach path at home may be OK, but cross a city border, and some entirely different rules may be in effect for the paths.

Maybe you merely have to pedal without the motor to be legal on that trail. Or maybe you just have to ride slow. Maybe if you look just like a gasoline scooter, nice little old ladies start throwing rocks at you. It can be quite peculiar at the local level. One day, I nearly got in a fist fight with 30 jogging body-builders that decided my e-bike was not allowed on the trail. They thought ALL bikes were not allowed. Some days you just have to bend to the local peculiarity of that day. That day, I got off the path, and got back on again once I was out of their sight.

As an example of how severe local laws can get, read how New York City made a city wide ban on electric bikes (<https://www.electricbike.com/ebike-illegal/>).

Now I will dig through some examples of state motor vehicle codes, to give an example of how to find and possibly understand the statutes, short of hiring a lawyer. In the examples, I give only my personal opinion of what the statutes mean.

In all examples I will apply the statutes to a "typical e-bike hubmotor kit". The example will be a direct drive hubmotor, 20 amps 36V controller, and 36V battery. The kit is then installed on a typical bicycle, with two rim brakes, seat, and multi-speed shifter. Upon assembly and testing, the bike is capable of traveling 23-MPH on flat ground with no pedaling. The rider is an adult male, and weighs 180 pounds.

The first example will be the state of Texas, USA.

This is the official state statutes website. <http://www.statutes.legis.state.tx.us/> (<http://www.statutes.legis.state.tx.us/>)

*Texas Transportation Code*

*Title 7 Vehicles and Traffic*

*Subtitle C Rules of the Road*

*Chapter 541 Definitions*

*541.201*

*(2) "Bicycle" means a device that a person may ride and that is propelled by human power and has two tandem wheels at least one of which is more than 14 inches in diameter.*

Is my e-bike a bicycle? It has two tandem wheels, that is, the wheels are one in front of the other, not side by side. It can be propelled by human power. The question here is, does the law mean propelled only by human power? It is a bit vague about that, but it does not specifically say, "cannot have a motor" either. Hmm, maybe another definition will fit my e-bike better. Lets read some more.

*(8) "Moped" means a motor driven cycle that cannot attain a speed in one mile of more than 30 miles per hour and the engine of which:*

- 1. Cannot produce more than two horse power; and*
- 2. If an internal combustion engine, has a piston displacement of 50cubic centimeters or less and connects to a drive system that does not require the operator to shift gears.*

Is my e-bike a moped? Lets see. The bike has a 20 amps controller, and 36V battery. 20 amps X 36volts = 720 watts. One horsepower is about 750 watts. The drive system doesn't require me to shift. But wait a minute, the law says "if an internal combustion engine" so that doesn't matter about the shifting. Apparently the law understands that other types of motors such as electric don't have transmissions. Suppose my electric motor did drive the chain of the bike, and required shifting. Doesn't matter, it's still not an internal combustion engine.

But there's still a catch-22 there. "Moped means a motor driven cycle" Is my bike a motor driven cycle? I don't know. Let's look at some more definitions. Back to the statutes.

*541.201*

*(9) "Motorcycle" Skip this one, it just talks about two or three wheels.*

*(10) "Motor Driven Cycle" means a motorcycle equipped with a motor that has an engine displacement of less than 250 cubic centimeters or less. The term does not include an electric bicycle.*

Bingo! If a motor driven cycle is not an electric bicycle, then my e-bike is not a moped. The definition of moped is " a motor driven cycle that " and so on.

*(11) "Motor Vehicle" means a self propelled vehicle or a vehicle that is propelled by electric power from overhead trolley wires. The term does not include an electric bicycle.*

There is some more progress, an electric bicycle is not a "motor vehicle". That means that signs that say "no motor vehicles" do not prohibit electric bicycles. It would help if they defined electric bicycle someplace. And they finally do.

*(24) "Electric Bicycle" means a bicycle that:*

- 1. is designed to be propelled by an electric motor, exclusively or in combination with the application of human power.*
- 2. Cannot attain a speed of more than 20 miles per hour without the application of human power, and*
- 3. Does not exceed a weight of 100 pounds.*

Finally we are getting somewhere. I have a bicycle, check. It has an electric motor, check. I weighed it, and it was 80 pounds, check. When I rode it, it went 23-MPH. Whoops! "Cannot attain a speed of more than 20-MPH"

So the example e-bike is NOT an e-bike in Texas.

What is it? Back to the definitions, since it is not an electric bike, it CAN be a motor driven cycle. So it is a Moped, and a moped IS a motor vehicle. If I look up the requirements for mopeds in other statutes, I may find my homemade moped will not be legal without lights, turn signals, dot approved tires, valid drivers license needed, etc etc etc. If that is so I'm screwed! AARRGHHH!

Well, maybe not. Can I modify my bike to be unable to go more than 20-MPH? Yes I can. Several methods can work.

Lower the voltage. Depending on the battery, the first block or two of riding might do the trick. If your battery drops voltage fast, you might be a lot slower than 20-MPH for 98% of your ride. I'd call that close enough if that is the case. Or maybe I can just charge my battery to a lower voltage. Maybe if I charge it to 40 volts instead of the normal 42V-44V, I won't be quite so fast. That could work if my battery still gets me going 23-MPH for too long to fudge it.

Add a device to control speed. One example is a three speed switch. Some controllers have a plug for it, or there are types that just modify the throttle signal. If your controller comes equipped with a cycleanalyst plug, then the CA can have its speed limiting function set to 20-MPH. Lastly, some controllers have a jumper wire that limits potential speed. In most cases this jumper wire, when connected, will result in speed a lot slower than 20-MPH. So that may not be the first choice. However you get it done, it beats having to comply with the moped laws, particularly if you have no drivers license.

If your e-bike is chain driven, you might try a lower gear ratio to lower the top speed, so you don't forget and accidentally ride past a local cop at 25-MPH.

You might replace your hubmotor with one that has a lower rpm-per-volt (called its "Kv"). A slower winding hubmotor may get you a top speed of exactly 20-MPH.

You ARE allowed to ride an e-bike in Texas faster than 20-MPH if you *pedal* up that speed. So when you are going fast and see a cop, pedal as fast as you can. We call it *clown pedaling*. Looks really clownish if you happen to be going 40-MPH. Don't expect a cop to be fooled if your e-bike really goes 40-MPH...but sometimes cops can surprise you.

Don't think you are done yet either. We have only gotten through the first part, Is my e-bike an electric bike? Assuming I got the speed down to 20-MPH, on to the rest of the laws that apply.

#### Chapter 551 Operation of Bicycles, Mopeds, and Play Vehicles.

In this chapter, it tells you how to operate the bicycle or in this case e-bicycle. In most cases, there is little variation in this area from state to state. All the usual stuff about having at least one hand on the handlebars, having a light at night, riding as far to the right as can be done safely, etc. In nearly all states, it will clearly state that bikes obey traffic laws, such as speed limits, stop signs etc. Just because you are allowed 20-MPH on the ebike you can't ride though the 15-MPH *school zone* at 20-MPH. You'd think this would be pretty obvious, but far too many bike riders think that *no license required* means *no laws apply*. It's not the case. But it's true that cops may ignore your breaking the law on a bicycle. Or...they may not. Do you feel lucky?

Now let's look at a state at the other end of the spectrum of e-bike law. New Mexico.

Here is a link to the New Mexico motor vehicle statutes.

<http://www.mvd.newmexico.gov/Manuals/Pages/mvdvehicletocAug08.htm>  
(<http://www.mvd.newmexico.gov/Manuals/Pages/mvdvehicletocAug08.htm>)

#### 66-1-4.2. Definitions. (1993)

As used in the Motor Vehicle Code [66-1-1 NMSA 1978]:

1. "bicycle" means every device propelled by human power upon which any person may ride, having two tandem wheels, except scooters and similar devices;

So my e-bike was a bike before the motor was put on. But it's not a bike when the motor is turned on. This could be important. If you are not using the motor, EVERY device propelled by human power with tandem wheels is a "bike" except for scooters. It does not seem to exclude carrying a motor you are not using on your "bike".

Moped defined (66-1-4.11E)

A moped is a self-propelled or human-powered vehicle (<http://www.mvd.newmexico.gov/Manuals/Pages/Vehicles%201.htm#Vehicle>) with an automatic transmission and a motor having a piston displacement of less than 50 cubic centimeters, that is capable of propelling the vehicle (<https://www.electricbike.com/category/technical/>) level ground, at sea level.

A technical (<https://www.electricbike.com/category/technical/>)

required to hold a valid driver's license or permit.

HISTORY (<https://www.electricbike.com/category/history/>) ABOUT (<https://www.electricbike.com/about-us/>)

Motor Vehicle Code Not Applicable to mopeds (66-3-1101)

SHOP (<http://www.lunacycle.com>) FORUM (<http://electricbike.com/forum/>)

None of the provisions of the Motor Vehicle Code relating to motor vehicles

(<http://www.mvd.newmexico.gov/Manuals/Pages/Vehicles%201.htm#vehicle>) or motorcycles

(<http://www.mvd.newmexico.gov/Manuals/Pages/Vehicles%201.htm#Motorcycle>) apply to mopeds, except that:

- mopeds are required to comply with those motor vehicle safety standards deemed necessary and prescribed by the Director of the Motor Vehicle Division; and
- moped drivers are required to hold a valid driver's license or permit

The Motor Vehicle Division is neither required nor authorized to title or register mopeds.

F. "motorcycle" means every motor vehicle having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground, excluding a tractor;

H. "motor vehicle" means every vehicle that is self-propelled and every vehicle that is propelled by electric power obtained from batteries or from overhead trolley wires, but not operated upon rails; but for the purposes of the Mandatory Financial Responsibility Act [66-5-201 NMSA 1978], "motor vehicle" does not include "special mobile equipment";

Looks pretty similar to the Texas definitions, but there is one key difference. There is no definition for electric bike. There seems to be no such thing as an electric bike in New Mexico. The closest match is "moped" So it looks like in the State of New Mexico the example e-bike is a moped. Some good news, you can go 30 mph. And you don't need to register and insure a moped.

But also some bad news. It states that the operator of a "moped" has to have a valid drivers license. No big deal, unless you lost yours in a DUI. If that is the case, then you might think twice about operating without a license, if you want to get your license back someday.

If you keep reading the NM statutes, you see no exceptions to the traffic laws for mopeds. You get to ride with no registration, but you don't get to ride any way you please. "Bicycles" have to obey the traffic laws too, by the way. Similar to Texas, lights at night, stop at the stop sign, ride on the right side of the road, obey speed limits, etc.

Now let's look at California.

<http://www.chp.ca.gov/html/motors.html> (<http://www.chp.ca.gov/html/motors.html>)

What is a moped or motorized bicycle?

- There are two types of motorized bicycles, defined in the California Vehicle Code (VC) Sections 406(a) and 406(b).

- Section 406(a) VC refers to a moped or motorized bicycle as any two or three wheeled device having fully operative pedals for propulsion by human power, or having no pedals if powered solely by electrical energy, has an automatic transmission, and a motor which produces less than 2 gross brake horsepower and is capable of propelling the device at a maximum speed of not more than 30 miles per hour on level ground.
- Section 406(b) VC refers to a motorized bicycle as a device that has fully operative pedals for propulsion by human power and has an electric motor that:
  - Has a power output of not more than 1,000 watts;
  - Is incapable of propelling the device at a speed of more than 20 miles per hour on level ground; and
  - Is incapable of further increasing the speed of the device when human power is used to propel the motorized bicycle faster than 20 miles per hour.

So what is my example e-bike in California? Looking at the section for motorized bicycle, it's less than 1000W, check. It's capable of 23-MPH, *fail*. We talked earlier about how to make it pass in Texas, and the same things could get it to pass in California. But the last one is new, "Incapable of increasing the speed past 20-MPH..." What does that mean? It does not seem to me that it means you can't motor to 20-MPH, then *pedal* to go faster. It's the opposite. It means that if you pedal to 20-MPH, the motor won't add any more speed than you have from pedaling. The example e-bike does not do that, so check.

I don't see any prohibition from using the motor to go 20-MPH, then pedaling to go faster.

So in California, my example e-bike is NOT an e-bike in California. But like in Texas, if it can be slowed down slightly to 20-MPH, then it will be an e-bike in California.

Interestingly, it appears that if I wanted to, I could also ride it as a moped. In the example, 36V makes it go 23-MPH. With 48V, it would go about 28-MPH, and have about one and a half horsepower. As a moped, note that it does not require the bike to have pedals. As a motorized bicycle, it IS required to have fully operable pedals.

## Driver's License Requirements

### Motorized scooter

Effective 1/1/2005, a Class-C driver license or driver permit is required.

### Motorcycle, motor-driven cycle, motorized bicycle/moped (Section 406(a) VC)

- Must obtain an M-1 or M-2 endorsement on a driver's license.
- M-1 allows the driver to operate a motorcycle, motor-driven cycle and moped
- M-2 allows for operation of a moped or motorized bicycle only.
- To obtain an M-1 or M-2 endorsement, the driver must:
  - Pass the appropriate written exam
  - Pass riding skills test (DMV will accept certificate of competence from an approved novice motorcyclist training program instead of skills test, such as the California Motorcyclist Safety Program).
  - If the individual is under 21 years of age, mandatory successful completion of a Basic Rider education course approved by the CHP is required, such as the Basic Rider course available through the California Motorcyclist Safety Program (<http://www.ca-mssp.org/>).

### Motorized Bicycle (Section 406(b) VC)

- Driver's License not required but rider must be at least 16 years of age.

In this section, we see the requirements for drivers licenses for various vehicles. The the one to take note of here is that if you operate as a "moped" (30-MPH) then you need not only a drivers license, but one with a motorcycle endorsement. But as a motorized bicycle, (20-MPH) you do not need *any* drivers license. You only need to be 16 years old for the "bike".

Digging some more, I found the California DMV website had this.

[https://www.dmv.ca.gov/pubs/reg\\_hdbk/ch21/ch21\\_27.htm](https://www.dmv.ca.gov/pubs/reg_hdbk/ch21/ch21_27.htm)

#### 21.130 Motorized Bicycle (Moped) Identification Plates (CVC §§406 and 5030-5039)

Motorized bicycles (mopeds) as defined in CVC §406 must be licensed before being operated or moved upon a highway.

- A moped license plate and identification card (ID) are issued which are not subject to annual registration.
- A title is not issued.
- A moped capable of attaining speeds in excess of 30 m.p.h. is subject to registration as a motor-driven cycle (motorcycle).
- A registration application and the required fees must be submitted if a moped operator is cited for speeds in excess of 30 m.p.h.
- Fees become due upon first operation after modification of the moped to increase its speed to more than 30

Now we see that if you are operating as a moped in California, you DO need a moped license plate.

It can get really confusing, and very seldom does any one place you look have all the information you need. You need to get your information from official state websites or publications. Looking at the wiki for California, it contains a very obvious mistake. Lots of misinformation on sites that try to summarize the laws for you.

Don't just trust what a person that wants to sell you an e-bike says. There is no substitute for digging up the law in your own state to figure out if what you plan to buy, or have bought is legal for you to ride in your state.

Summarizing the three states we just looked at, the example e-bike is not a "bike" in any of the three states. It's not a bike in Texas and California because it can motor to 23-MPH. In New Mexico, there simply is no such thing as an electric bicycle.

But it's pretty easy to limit any e-bikes speed, so the e-bike could be slowed down enough to be legal in any state with a 20-MPH limit. In New Mexico though, nothing will make it a "bike" IF the motor is turned on. With the motor off, nothing prohibited carrying a motor you are not using on a "bike". What's the difference? You could pedal legally on the street, then once off the street, motor happily off road.

In two states, California and New Mexico allow riding as "moped" class. The moped class in both states allows 30-MPH. Both require a drivers license but only California required a motorcycle endorsement for the license. California required a registration, New Mexico does not.

That is a lot of variety of e-bike rules, and we just looked at three states. Unless I am mistaken, New York still completely prohibits electric bike use on public roadways. As you can see, it's far too complicated and variable to be able to summarize e-bike laws for the entire USA. Each state is quite different, in some you are a motor vehicle, and in some you are not. And even in one state, the power and speed your particular e-bike has can greatly change the legality of riding on public roadways.

If somebody in another state from yours tells you the bike he wants to sell you is legal for you to ride, it's not very likely he knows all the statutes that apply in every state. Get your own information from official state websites before you start shopping. That way, you will know what rules apply before you buy a bike that is not a "bike" in your state. Pay particular attention to your e-bikes local status as a



📅 Dec 05, 2015 🗨️ 8 Comments (<https://www.electricbike.com/%e2%80%8bbike-battery-math-volts-amps-amp-hours-watt-hours/#comments>)

These days, awesome ebike battery packs constructed of quality 18650 cells are available to average bike builders thanks to advances in 18650 DIY pack building methods and

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Laurence Clarkberg · 5 years ago

The situation in New York State is not as bleak as you imply. New York State has yet to define what an electric bike is, so in the meantime the federal definition applies (an ebike goes less than 20mph, with less than 750 watts of power). The federal definition says that any bicycle within these specifications is not a "motor vehicle" or a "motorized vehicle" or a "motorized bicycle"; it is essentially a bicycle. Only state laws for bicycles apply. This makes sense; the intent of the federal law is to define a reasonable speed and power for ebikes that isn't significantly different from human power. We're talking about a vehicle that by definition is not capable of behaving significantly differently than a human-powered bicycle, so it should have the same benefits and restrictions as a human-powered bicycle. States like New York State that simply don't define ebikes don't have a basis for restricting them, except by referring to the federal law. It may be that this very clear idea needs to be tested in court, or it may be that Albany comes to its senses and passes a legal definition of ebikes similar to the Federal definition.

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AAAMinuteman → Laurence Clarkberg · 8 months ago

The article clearly states early on that the "e-bike ban" is in reference to New York CITY - see the link in the article to "New York City made a CITY-wide ban on e-bikes"... however, I will have to say, thing do get confusing later on in the article, where the author is talking about STATE Laws on e-bikes, and then mentions again the "New York e-bike ban" - which is mixing apples and oranges (State and City laws) in the context of the "State Law" discussion... this is an obvious "non-sequitur", which is Latin lawyer-speak for "it does not follow" (from the context).

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elhmad → Laurence Clarkberg · 2 years ago

any update on the nys and it's definition of ebikes

1 · Reply · Share

PTVshow.com · 2 years ago

To summarize: If you are trying to be a good citizen by getting exercise, not polluting and being safe on an e-bike you risk:

- breaking a federal law or
- breaking a state law or
- breaking a local law &

You have no idea if you're breaking the law because it is not spelled out clearly in any one place.

Not much of an incentive to do the right thing; in fact, there's a major disincentive.

I have to agree with jbond; it's time for the e-bike industry to lobby for clarity & standardization.

At the very least, it should be a mandate that all regulations for electric personal transportation vehicles should have to be clearly stated, in one place that is clearly labeled and easy to understand. That's a starting point. Electric PTV users shouldn't have to search all over federal, state & local laws to find out whether or not they are being legal.

2 · Reply · Share

Electric Bike Mod → PTVshow.com · 3 years ago

Luckily regardless of the laws, i dont hear much about them being enforced anywhere For example ebikes are completely illegal in NYC and people still ride them there all the time, and in fact the city has probably the most successful ebike store in the country: nycewheels

1 · Reply · Share

Guest → Electric Bike · 3 years ago

The e-bikes in New York should be legalized. This was a very bad idea from somebody to make e-bikes illegal in New York. Making something illegal isn't to expect that nobody is going to make that thing. Those who made e-bikes illegal in New York should neither expect themselves that nobody is going to ride them there. Riding a gasoline powered motorbike is legal but the e-bikes are illegal in New York, I think this is all ridiculous. New York is one of the world's biggest cities and there are more vehicles than in London, Stockholm, Warsaw, Berlin or even Gothenburg in Sweden. In all of those cities e-bikes are legal, these cities are named as examples but e-bikes should be legal in New York. They should think more about pollutions and the air quality, this has to be as good as possible in that big cities like New York or even bigger cities. India and China have got real problems with their air quality, especially in the cities where they drive cars and motorbikes a lot. The cargo motorbikes are usual especially in India and those should get replaced by cargo ELECTRIC motorbikes making no pollutions. India and China are the biggest countries in the world and there should be more electric vehicles than gasoline powered vehicles. Today there are batteries that can be charged as fast as refuelling a gasoline powered vehicle, normally 5 minutes. But the batteries get only 50 % of their capacity and charging them that fast all the time will use up them faster than if they will get full charges all the time. Fast charging is also not good for the batteries, it's better to charge batteries too long. Once I tried charging my mobile phone battery a time that was too long and the battery was longing for a longer time than usually. Too long charges are better than those taking 5 minutes but actually still not the best thing a battery can get. I would recommend to charge the batteries in the time they need mostly and charge them too long sometimes only.

3 · Reply · Share

Boredinmin · 3 years ago

... it's all well and good, but it does seem a bit... And, nobody has a clue what I'm riding. Of course, I'm

careful to call "on your left" with every high speed pass. But, I'm dreading the possibility of "no motor-assist bicycles" signs going up once people do figure out what's going on.

1 | | | [Reply](#) | [Share](#)

**Curt Welch** → [Boredinmin](#) · 5 months ago

You should never make a "high speed pass" period. If the person you are passing steps in front of you, or serves because they don't know you are there, and you can't stop and prevent an accident, you have failed to do your job as a responsible citizen. When you pass a person, or another bike on a trail, slow down to near their speed before you pass them -- don't just go zipping past them at 25 mph because you can. That's exactly the type of behavior that will get eBikes outlawed from bike trails. You are not doing any of us a service by making "high speed passes".

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**Boredinmin** → [Curt Welch](#) · 6 months ago

"slow down to near their speed"?

You gotta be kidding. What's the point of having the bike if I have to slow down to a walking pace to avoid some idiotic, brainless move? I'll just trade it in for a rusty Schwinn and then stop biking altogether because that's stupid.

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**Justin Barker** → [Boredinmin](#) · 7 months ago

There is already legal precedent on this. Search for "Electric bike strike pedestrian." Let's just say that if you hit someone at an excessive speed on an e-bike, your financial life is ruined.

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**Boredinmin** → [Justin Barker](#) · 7 months ago

Yikes! That sounds threatening.

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**Curt Welch** → [Boredinmin](#) · 9 months ago

I'm not kidding. If you are around others going slow, you go slow too as you pass them. When you are not around others moving slow, you can go faster. So what are you doing? A mom and three young kids, and a dog are out on the path going 5 mph, and you fly past them at 35 mph? Is that what you tell me you are doing? You should have your bike taken away from you if that's what you are doing. And if you have a driver's license, you should have it taken away as well until you become mature enough to operate such a dangerous vehicle.

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**maksimillion** → [Curt Welch](#) · 8 months ago

Chill Yo

1 | | | [Reply](#) | [Share](#)

**Boredinmin** → [Curt Welch](#) · 7 months ago

Settle down, Curt. You're starting to foam at the mouth.

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**Curt Welch** → [Boredinmin](#) · 7 months ago

Sometimes, foaming at the mouth is required to keep people from doing stupid things.

| | [Reply](#) | [Share](#)



**Guest** · 3 years ago

Feel free to cover Iowa's law which allows assist at speeds over 20 MPH. We have 30 MPH tailwinds, so its just not practical to try to limit speed when pedal-only bicyclists can be seen going 50 MPH.

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**Ebike Driver** · 2 months ago

This article seems incorrect. I have read the HR-727 and can't seem to find anywhere that states the 750 watt 20 MPH limit is only for people selling ebikes. The way it is written seems to imply the law is for riding ebikes.

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**D.w. Moore Jr.** · 8 months ago

Could u tell me the situation in Pennsylvania for E-bikes

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**Ebike Driver** → [D.w. Moore Jr.](#) · 8 months ago

In the State of Pennsylvania, e-bikes are defined as bicycles that have a motor that is no bigger than 750 watts, and has a top speed of 20 MPH or less.

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**Guest** · 10 months ago

Even in Ohio, the laws between federal, state, and local on electric bicycles are a joke. I have a 100% tao tao electric power assisted bicycle and I have been ticketed in both Cleveland and Lakewood, where I live. Here is a picture of my electric bicycle and this has bicycle pedals.





• Reply • Share

**Joel Taylor** → Guest • 3 months ago

see that bit in the article about looking like a moped/scooter.

• Reply • Share

**kiluma** • a year ago

I have an electric bike. I live in Texas. I was cited for running a stop sign. :)



• Reply • Share

**Justin Barker** → kiluma • 7 months ago

In Texas (as with most states) a bicycle on a roadway is legally the same as a slow-moving vehicle such as a tractor. Even a non-electric cyclist should be ticketed for running a stop sign/light.

I used to work as a cyclist rights advocate in Missouri and every time someone told me that stopping at every block is a hassle I'd point them to a legal case where a cyclist ran a stop sign, was struck by a car and killed and his estate had to pay for the damages to the driver.

• Reply • Share

**kiluma** → Justin Barker • 7 months ago

There's your answer right there. There is already a deterrent to running a stop sign. It's called civil procedure[ie. being sued]. The only thing legislation does is to make the government a party in a civil matter. The government has no business in the matter.

• Reply • Share

**James Johnson** → kiluma • 5 months ago

Government does have an interest in the matter of someone running a stop sign. It does not matter if you are in a truck, car, or are riding a bicycle, you must obey traffic laws. In Texas you are required to use a headlight at night and have a rear reflector. I would change the law to require a rear light if I were in the Legislature.

• Reply • Share

**John Gallagher** • a year ago

For a lawyer, you didn't get what the federal law states. The federal law overrides all state laws and defines an e-bike as a bicycle. According to the New Jersey state MVO, e-bikes must be registered but they can't be registered because they do not meet federal safety standards for motor vehicles - not on the list of approved motorcycles. The federal law overrides these anal idiots. E-bikes that meet the federal definition of an e-bike, are bicycles in all states. This is the entire purpose of the federal law! To prevent anal bureaucracy states from stopping the sale and use of these environmentally friendly e-bikes.

• Reply • Share



**Wayne** → John Gallagher • 7 months ago

I am trying to get a e bike (jetson electric scooter) and I live in nj and I have been reading and most of the laws state that it must be registered and insured with Lisence. I was wondering why you would think that the federal law overrights state law? I mean I hope it was but it is starting to seem like it isn't. How do you know what this is true in nj? Thanks

• Reply • Share

**Paul-Joseph de Werk** • 2 years ago

The California section indicates the need for an M-1 or M-2. Not completely correct, if the motorized bicycle, moped, scooter, motorcycle, has 3 wheels (attached sidecar or trike) then a Class C is enough, and no special motorcycle endorsement is needed.

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**Cypress Van Horn** • 2 years ago

Anyone got a clear picture of what an electric assisted recumbent trike would be considers in WA State?

"RCW 46.04.169) "Electric-assisted bicycle" means a bicycle with two or three wheels, a saddle, fully operative pedals for human propulsion, and an electric motor. The electric-assisted bicycle's electric motor must have a power output of no more than one thousand watts, be incapable of propelling the device at a speed of more than twenty miles per hour on level ground, and be incapable of further increasing the speed of the device when human power alone is used to propel the device beyond twenty miles per hour."

The part that confuses me is the "saddle". Recumbent trikes do not have the typical bicycle saddle seat. They have a nice comfy fully supportive seat. Some are like bucket seats. So then I'm thinking, would it be a moped under WA law?

For moped they say:

What is a moped? (RCW 46.04.30)

A moped is a two or three wheeled motorized (electric or liquid fuel) device with a cylinder displacement not exceeding fifty cubic centimeters and produces not more than two gross brake horsepower. The device may not be capable of exceeding thirty miles per

hour on level ground. Pedals and sixteen-inch or larger diameter wheels are not required, provided the device and all equipment was originally manufactured for public road use. Mopeds are required to have two mirrors, horn, brakes on all wheels, speedometer/odometer, head light, tail light, brake light, license plate light, turn signals (if originally equipped), license plate lamp, red reflector to the rear, and the operator and any passenger are required to wear a helmet meeting requirements outlined in RCW 46.37.350.

But they list a 50cc displacement?! How do you measure that on an electric motor?

⏪ ⏩ • Reply • Share

**Joel Taylor** → Cypress Van Horn • 3 months ago

Quote: "But they list a 50cc displacement?! How do you measure that on an electric motor?"

You use the Break Horse Power section.  
"produces not more than two gross brake horsepower."

2 break Horse Power = ~1.49kw or 1490w

So your motor is limited to a peak of 1490 watts. This is where you have to be careful as a number of e-bike motors are sold not at peak rating but at their sustainable rate. That 1000w rated motor might actually be capable of 2000w and be a violation.

My State (WV) Laws are similar. Anything with a motor is a Moped (requires registration and insurance and that kills a lot of incentive to use one). I got interested because I was looking at the Organic Transit ELF. Turns out human powered Trikes are non-classified vehicles here, that is they are not defined as a bike -as a bike can only have 2 tandem wheels- while a moped can have 3 but also has a motor which a human powered trike lacks. >shrug<

⏪ ⏩ • Reply • Share

**Joel Taylor** → Joel Taylor • 3 months ago

Yes. I know that the Federal definition technically over rides State, but I also know which the local PD will know about and try to enforce.

⏪ ⏩ • Reply • Share

**Benjamin Bottoms** → Cypress Van Horn • 10 months ago

I actually know SOME of this, since I've been delving into it. I've sent an e-mail to the WA ATTY GEN office, to obtain clarification in regards to the "saddle seat" needed.

Other than the seat clarification, pretty much an e-bike that is legal in OR or AZ should be useable in WA, as OR and AZ have the same riding laws as WA used to have.

the reason for the weirdness in the law text? The reason is till recently, <50CC gas motor assisted bicycles were completely legal. Car dealers didn't like it, and pushed to get the laws changed to make it harder to use them. They reclassified the under 50cc motor assisted gas bicycles as a moped, requiring all the usual trappings.

However, the only real change in the e-bike laws that I've found in WA is the addition of the seat requirement. I've had people tell me I just need a seat, and the law's to prevent sitting on a bar, or standing only.

So, as far as I can tell insofar as the law's intent, they just mean for you to have a seat. not a flat bench or standing only, which then classifies it as something else completely.

⏪ ⏩ • Reply • Share

**Cypress Van Horn** → Cypress Van Horn • 2 years ago

On another note I would be interested in getting a legal expert to look at this section:

"[the] electric motor must have a power output of no more than one thousand watts, be incapable of propelling the device at a speed of more than twenty miles per hour on level ground, and be incapable of further increasing the speed of the device when human power alone is used to propel the device beyond twenty miles per hour."

The wording is important on this part I think. It says "incapable". So I think even if you had a CA hooked up to it that allowed you to regulate the speed and wattage output, if the overall system was still "capable" of exceeding those limits, then it would not fall under electric assist bike. The RCW also says if you can pedal the bike above 20mph on human power alone, the motor can't be capable of adding more speed beyond that. In other words it shuts off, or goes into regen?

⏪ ⏩ • Reply • Share

**Cypress Van Horn** → Cypress Van Horn • 2 years ago

Or maybe it is a motorcycle?

RCW 46.04.330

Motorcycle.

"Motorcycle" means a motor vehicle designed to travel on not more than three wheels, not including any stabilizing conversion kits, on which the driver:

(1) Rides on a seat or saddle and the motor vehicle is designed to be steered with a handlebar; or

⏪ ⏩ • Reply • Share



**LivingEcaveman** • 2 years ago

Pennsylvania is one of the states where non-ebikers who shouldn't get involved are anyway. Let me explain why they look foolish for trying to control what they don't even understand. PA vehicle code states 5 "requirements" or criterion which are critical to legal ebikes. the 3rd states in order for it to be a motor vehicle (not a bike) it MUST have an automatic transmission. Even tho the code had the term

"electric bike" added to it, it still left the "automatic transmission" requirement. Electric motors and bicycles don't have automatic transmissions, and aren't really classified in the vehicle code for that reason. Yet on PennDOT's (PA's DMV) website there is a promiscuous "FACT SHEET" which says electric bikes are all illegal without registration and a DL. I would tell them to stop being so dumb, but I've noticed this approach rarely changes the 'facts', and I'll just leave that nest of bees alone. I wonder who wrote that turd. Not one of us, we don't step on our own rights, do we? I don't even try to step on others'. But have to be careful where you step. I like laws. But they have to make sense. Ebikes are harmless and can reduce the plague of pollution to heal what I've seen become noticeably dirtier (waterways, snow) in my own lifespan. What a shame to even consider it being illegal.

↳ ⌵ • Reply • Share



**Jbud** • 3 years ago

They would get me with an Ego drive, (plan to get one) it's a little noisy. Wonder if dropping gear or reducing motor use, while clown pedaling would get me by. Even if it doesn't still going to try! All hub motor systems seem good and stealthy, many fully legal, but ego kit so far seems the most bang for buck. At least from what I want out of my kit, what I willing to spend.

PTVshow knows why I want this bike, and see's exactly the same worry I fear as soon as I get it. However, I don't think they will enforce the law on responsible riding (unless of course they haven't met their quota lol) The way I see it simply put, the line where breaking the law comes in is if a Cop is going to detain you for riding. Which is usually in my case if I do anything that is considered "excessive fun" on my vehical. Even though the Ego is above Law limits for watts, (which is stupid because most motors power peaks at different levels than advertised. They can't prove it if I drive within speed... Cars can go faster too as long as I follow the rules of the road, they shouldn't have any reason to hassle me. Why would a Cyclist need Signals and brake lights when you can use hand signals? Law says if it's faster than 32 Km/h it's motorized and considered in need of registration, insurance, and license. Which I will probably never bother to carry on the bike, because you shouldn't need it.

Think I care if I push laws boundries? Nope, I will suffer the consequences if they catch me having fun. The law can't keep up with the times, we can build bikes faster than they can 'debate'. As soon as I found E-biking, I drive car 1/4 so Gassing every week to a month of what I used too. And I realized cars are not fun to work on, when you have a two wheeled beauty to tinker with.

↳ ⌵ • Reply • Share

**Rafe Husain** • 3 years ago

according to call law re mopeds

"Motorized bicycles (mopeds) as defined in CVC §406 must be licensed before being operated or moved upon a highway."

so just dont ride moped on a highway.. use local bike lanes

↳ ⌵ • Reply • Share

**Jbond** • 3 years ago

Looking in from the outside, this seems completely insane to me. I can't get my head around the idea of a country (or group of countries) that doesn't have a single definition and set of laws for types of motor vehicles. So where's the trade body working to get this mess rationalised? How does the bicycle industry ever hope to expand the E-Bike market if the rules are different in every state and even city and town? There's a lot of money to be made from consistency and standardisation.

There's wisdom in the article though. If you look like a bicycle rider on a bicycle doing bicycle type things, you'll be treated like a bicyclist. So if it's legal for bicycles nobody in the law will care. Frat boys in SUVs will still throw beer cans at you. Joggers and horse riders will still swear at you. Everybody will hate you if you're stupid, but at least you won't get a ticket.

↳ ⌵ • Reply • Share

**Electric Bike** Mod → Jbond • 3 years ago

It is insane.

the USA is a disjointed place. If you think ebike laws are confusing check out marijuana laws.

↳ ⌵ • Reply • Share

**Cole Williamson** → Electric Bike • 3 years ago

The majority of folks can't even recognize an ebike...and if you don't advertise it, you can ride everywhere...I do... parks...trails...even paths that say no motorized vehicles...but I use courtesy and respect and ride within limits of the path...until I get out of sight...

↳ ⌵ • Reply • Share

**Electric Bike** Mod → Cole Williamson • 3 years ago

well said

1 ⌵ • Reply • Share



**Kylie** → Electric Bike • 3 years ago

I bought an OutlawSS which tops out at 28mph. I tried the "discreet" route as stated above but because of the blood-red color and design of the bike I attracted too much attention. It didn't matter that I was keeping my (alongside of the road) speed at 15mph, people (probably cycling enthusiasts or just haters) jammed on the brakes to check out wtf I was riding. One passenger (some teenager) even had his smartphone out and was either snapping pictures or getting video. Long story short, the officer that pulled me over said "no" to the bike and advised me to get an off-road sticker from the DNR and I'd be fine on ATV trails. He also said there have been numerous reports of "The guy on the illegal E-bike". I was polite and got off with a warning. Haters gonna hate I guess.

1 ⌵ • Reply • Share

**Electric Bike** Mod → Kylie • 3 years ago

Which city do you live in to get so much grief? I have never heard it this bad.

Sorry to hear about your woes.

2 0 0 0 • Reply • Share

sun-energy → jsam → 2 ybais ago

## electric bike

Between the wish and the thing the world lies waiting.



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