

**House Bill 1148**  
**Senate Transportation Committee**  
**Senator Clemens, Chairman**

Chairman Clemens and members of the Senate Transportation Committee, my name is Sergeant Wade Kadrmas and I am the Safety and Education Officer for the North Dakota Highway Patrol. The highway patrol takes a neutral position on House Bill 1148 but would like to provide information for your consideration.

The highway patrol fields a variety of questions regarding vehicles, not only passenger cars and commercial motor vehicles, but also motorized bicycles and off highway vehicles and will likely field questions about electric bicycles. After this bill was introduced, we looked at what other states have done to address potential safety concerns for electric bicycles. I have provided a 2019 document that the State of Montana Transportation Interim Committee put together regarding electric bikes and scooter (motorized bicycle) laws for each state. The document includes a table containing electric bicycle laws by state and province. This table was put together by the Transportation Research and Education Center with Portland State University, which is funded by U.S. Department of Transportation. This table provides an informative overview of laws guiding the use of electric bicycles.

House Bill 1148 proposes the implementation of an electric bicycle classification system. This system outlines three different classes. A Class III electric bicycle can reach speeds of up to 28 miles per hour. Since some electric bikes can reach that speed, the patrol requests the committee discuss and consider safety measures similar to other states where a minimum age limit is set for operators of a Class III electric bicycle and to consider helmets for all operators and riders under the age of 18. I have also provided a copy of South Dakota's 2019 electric bicycle law that includes similar safety requirements.

Mr. Chairman that concludes my testimony and I would be happy to answer any questions.

# Electric Bikes and Scooters

## Snapshot of State Laws

State legislators, including those in Montana, are examining state laws, analyzing the use of electronic bikes (e-bikes), and determining how best, if at all, to regulate their use on public streets and paths. According to the National Conference of State Legislatures (NCSL), 33 states and the District of Columbia define e-bikes in law.<sup>1</sup> Montana is included in that list.

Montana law (61-8-102, MCA) defines e-bikes, or “electrically assisted bicycles” as a bicycle with two operational pedals with a motor attached propels the bicycle and a rider who weighs 170 pounds no faster than 20 miles an hour. Essentially, for the purposes of regulation and enforcement, an e-bike is treated as a bicycle. The state does not require license or registration. And e-bikes may be ridden on roadways and bicycle paths.

Federal law provides guidance in terms of the manufacturing and sale of e-bikes in the nation. Amendments to the Consumer Product Safety Commission passed by Congress in 2002 provide a definition of e-bikes as “A two- or three-wheeled vehicle with fully operable pedals and an electric motor of less than 750 watts (1 h.p.), whose maximum speed on a paved level surface, when powered solely by such a motor while ridden by an operator who weighs 170 pounds, is less than 20 mph.” Montana’s definition largely mirrors the federal definition. Devices that meet the federal definition are regulated by the Consumer Product Safety Commission. However, the federal law applies only to the e-bike’s product standards and safety. Additional e-bike regulation is provided by states. State laws in general focus on e-bike classification systems, licensure and insurance regulation, helmet requirements, age requirements, and some guidance in terms of where e-bikes can travel.

As of late 2017, 13 states (Arizona, Arkansas, California, Colorado, Connecticut, Idaho, Illinois, Michigan, Ohio, Tennessee, Utah, Washington and Wyoming) created a three-tiered e-bike classification system for the purposes of e-bike regulation, according to NCSL. The People For Bikes and the Bicycle Product Suppliers Association in a 2019 publication, report that 22 states have enacted classifications. They add Georgia, Indiana, Maine, Maryland, New Hampshire, New Jersey, Oklahoma, South Dakota, and Texas to the NCSL list.<sup>2</sup> Classification systems allow states to regulate faster e-bikes more like motor vehicles and slower e-bikes more like regular bicycles. The classifications differentiate between e-bike models and speed capabilities.

### 61-8-602, MCA

**Traffic laws applicable to persons operating bicycles or mopeds.** *A person operating a bicycle or moped is granted all of the rights and is subject to all of the duties applicable to the driver of any other vehicle by chapter 7, chapter 9, and this chapter except for special regulations in this part or the provisions of chapter 7, chapter 9, and this chapter that by their nature cannot apply.*

<sup>1</sup> <http://www.ncsl.org/research/transportation/state-electric-bicycle-laws-a-legislative-primer.aspx>

<sup>2</sup> <https://peopleforbikes.org/our-work/e-bikes/policies-and-laws/>



# Electric Bikes and Scooters

## Snapshot of State Laws

Those classifications most often include:

- Class 1 electric bicycle -- A bicycle equipped with a motor that assists only when the rider is pedaling, and that ceases to assist when the bicycle reaches the speed of 20 miles per hour.
- Class 2 electric bicycle -- A bicycle equipped with a motor that may be used exclusively to propel the bicycle, and that is not capable of assisting when the bicycle reaches the speed of 20 miles per hour.
- Class 3 electric bicycle -- A bicycle equipped with a motor that assist only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 28 miles per hour and is equipped with a speedometer.

Additional regulation of e-bikes flows from the classification systems established. For example, protective headgear is sometimes required based on varying classifications. In Montana, the operator of a motorcycle or quadricycle under the age of 18 is required to wear a helmet. An e-bike is not defined as a motorcycle or quadricycle. Requirements in other states vary, from Connecticut which requires all e-bike operators to wear protective headgear to Utah which requires operators under that age of 21 to wear a helmet.

Other states have established age restrictions for operating an e-bike. For example, California prohibits a person under the age of 16 from operating a class 3 e-bike. Utah allows an e-bike operator between the ages of 8 and 14 on public property, highways, paths, or sidewalks, if supervised by a parent or guardian. Montana law does not include age restrictions for the operation of an e-bike.

Of the 13 states with classifications systems, 12 exempt e-bikes from any form of registration, licensure, or insurance, but all 13 state laws require an operator affix an e-bike with a label that establishes its classification. Laws in Illinois also allow local authorities to develop regulations for e-bike operations and registration or licensing requirements. Several state laws also specifically allow e-bike operation on bicycle paths or greenways, but some of those states also make exceptions for cities and counties to enact stricter operation regulations. Similar to the law in Montana, in Delaware, Florida, Iowa and Nebraska e-bikes are defined as bicycles and there is not a distinction when it comes to operation. California and Tennessee disallow class 3 e-bikes on a bicycle path, but allow local governments to opt-in.

The Transportation Research and Education Center (TREC) developed the table provided below, which provides a snapshot of electric bicycle laws by state.<sup>3</sup> The list was compiled in November 2017. The TREC is located at Portland State University is one of seven university transportation centers funded by the U.S. Department of Transportation.

<sup>3</sup> <https://trec.pdx.edu/>



# Electric Bicycle Laws by State and Province



Area	Identity	Bicycle?	License?	Registration?	Age	Power	Speed	Pedals?	Federal?	Helmet?	Paths?	Sidewalks?	Law references
Alabama	Motor-Driven Cycle	N	Y	Y	14	150 cc	--	N	N	Y	N	N	Ala. Code § 32-1-1.1 (2013); § 885-1-1-.05; 32-5A-245; 32-12-41
Alaska	Motor-Driven Cycle	N	Y	N	14	50 cc	--	N	N	N	N	N	Alaska Stat. § 28.90.990
Arizona	Motorized Electric Bicycle	Y	N	N	--	48 cc	20	N	N	N	Y	Y	Ariz. Rev. Stat. § 28-2516
Arkansas	Electric Bicycle**	Y	N	N	--	750 W	20	Y	N	N	Y	Y	Ark. Code § 27-51-1702; § 27-51-1703 to 1706
California	Electric Bicycle**	Y	N	N	--	750 W	20	Y	N	N	Y	Y	Cal. Veh. Code. § 312.5; § 21200 - 21212; § 21207.5; § 24016
Colorado	Electrical assisted Bicycle**	Y	N	N	--	750 W	20	Y	N	N	Y	Y	Colo. Rev. Stat. § 42-1-102 (28.5); 42-3-103(1)(b)(l); 42-4-111(1)(dd) ; 42-4-221(9)-(10); 42-4-1412
Connecticut	Motor-Driven Cycle	N	Y	N	16	50 cc	--	N	N	N†	N	N	Conn. Gen. Stat. § 248-14-1 (52); § 248-14-286
D. C.	Motorized Bicycle	Y	N	N	16	--	20	Y	N	N	N	N	D.C. Code § 18:99-01; § 50:1501.01-03; D.C. Act 19-658
Delaware	Bicycle	Y	N	N	--	750 W	20	Y	Y	N†	Y	Y	Del. Code tit. 21 § 1-101 (2); tit. 21 § 41
Florida	Bicycle	Y	N	N	16	--	20	Y	N	N	Y	Y	Fla. Stat. § 322.01; § 316.003
Georgia	Electric Assisted Bicycle	Y	N	N	15	1000 W	20	Y	N	Y	Y	N	Ga. Code § 40-1-1 (15.5); § 40-6-294; § 40-6-351; § 40-6-352
Hawaii	Moped	N	Y	Y	15	1491 W†	30	N	N	N†	N	N	Haw. Rev. Stat. § 14:249-1; § 17:286-81; § 17:291C-194
Idaho	Moped	N	Y	N	--	50 cc	30	N	N	N		Y	Idaho Code § 49-114; § 49-721; § 49-1428
Illinois	Low-Speed Electric Bicycle**	Y	N	N	--	750 W	20	Y	N	N	Y	Y	625 Ill. Comp. Stat. 5/1-140.10; 625 ILCS 5/11-208; 625 ILCS 5/11-1517
Indiana	Motorized Bicycle	Y	N	N	15	50 cc	25	N	N	N†		N	Ind. Code § 9-13-2-109; § 9-21-11-12
Iowa	Bicycle	Y	N	N	--	750 W	20	Y	Y	N	Y	Y	Iowa Code § 321.1
Kansas	Electric Assisted Bicycle	Y	N	N	--	1000 W	20	Y	N	N	Y	Y	Kan. Stat. § 8-1489
Kentucky	Bicycle	Y	N	N	--	--	--	Y	N	N	Y	Y	Ky. Admin. Reg. 601 §14:020 (1)(a)
Louisiana	Motorized Bicycle	N	Y	Y	15	1119 W†	25	N	N	Y		N	La. Rev. Stat. § 32:401 (19); § 32:198; § 32:190
Maine	Motorized Bicycle	N	Y	Y	16	1119 W†	20	N	N	N†		Y	Me. Rev. Stat. tit. 29-A § 101-1 (41); tit. 29-A § 11; tit. 29-A § 19; tit. 29-A § 2063
Maryland	Electric Bicycle	Y	N	N	--	500 W	20	Y	Y	N	Y	N	Md. Code, Com. Law § 11-117.1; § 21-1200
Massachusetts	Motorized Bicycle	N	Y	Y	16	50 cc	25	N	N	Y	Y*	Y*	Mass. Gen. Laws ch. 14, §§ 90-1B~E; ch. 14 § 90-1
Michigan	Electric Bicycle**	Y	N	N	--	750 W	20	Y	N	N	Y	Y	Mich. Comp. Laws § 257.13e; § 324.72105(2)-(4); § 500.3101(c)(i)(viii); § 657; § 662a;
Minnesota	Electric-Assisted Bicycle	Y	N	N	15	1000 W	20	Y	N	N	Y	Y	Minn. Stat. § 169.011 (27); § 168A.03; § 160.263
Mississippi	Bicycle with a Motor Attached	Y	N	N	--	--	--	N	N	N	Y*	Y*	Op. Atty. Gen. No. 2007-00602; Op. Atty. Gen. No. 2011-00095; Miss. Code § 63-3-103
Missouri	Motorized Bicycle	N	Y	N	16	2238 W†	30	N	N	N		N	Mo. Rev. Stat. § 301.010 (36); § 300.347; § 307.180; § 307.195
Montana	Electrically Assisted Bicycle	Y	N	N	--	--	20	Y	N	N	Y	Y	Mont. Code § 61-8-102(2)(g)
Nebraska	Electric Assisted Bicycle	Y	N	N	--	750 W	20	Y	N	N	Y	Y	Neb. Rev. Stat. § 60-611
Nevada	Electric Bicycle	Y	N	N	--	750 W	20	Y	Y	N	Y	N	Nev. Rev. Stat. § 484B.017; § 484B.777; § 484B.117; § 483.090
New Hampshire	Electrically Powered Bicycle	Y	N	N	14	750 W	20	Y	Y	N†		N	N.H. Rev. Stat. § 259:65
New Jersey	Motorized Bicycle	N	Y	Y	15	1119 W†	25	N	N	Y	N	N	N.J. Rev. Stat. § 39:1-1; § 39:3-10
New Mexico	Moped	N	Y	N	15	50 cc	30	N	N	N†		N	N.M. Stat. § 66-1-4.11; § 66-1-4.2; § 66-5-2
New York	Motor-Assisted Bicycle	N	Y	Y	--	--	--	N	N	N	N	N	N.Y. Veh. & Traf. Law § 102; § 123
North Carolina	Electric Assisted Bicycle	Y	N	N	16	750 W	20	Y	Y	N		N	N.C. Gen. Stat. § 20-4.01 (7a & 49)
North Dakota	Motorized Bicycle	N	Y	Y	14	50 cc	30	Y	N	N		N	N.D. Cent. Code § 39-01-01 (48); 39-06-14.1
Ohio	Motorized Bicycle	N	Y	Y	14	745 W†	20	Y	Y	N†		N	Ohio Rev. Code § 4501.01(L); § 4511.521; § 4511.711
Oklahoma	Electric-Assisted Bicycle	N	Y	N	--	1000 W	30	Y	N	N	Y	Y	Okla. Stat. tit. 47 § 1-104; tit. 47 § 11-805.2; tit. 47 § 11-1103
Oregon	Electric Assisted Bicycle	Y	N	N	16	1000 W	20	Y	N	N	Y	N	Or. Rev. Stat. § 801.258; § 814.405; § 814.410; § 807.020
Pennsylvania	Pedalcycle with Electric Assist	Y	N	N	16	750 W	20	Y	Y	N		Y*	Senate Bill 997; 75 Pa. Cons. Stat. § 102; 75 Pa.C.S. § 3525; 75 Pa.C.S. §3703
Rhode Island	Electric Motorized Bicycle	N	Y	N	16	1491 W†	25	Y	N	N†	Y	Y	R.I. Gen. Laws § 31-1-3; § 31-3-2.2; § 31-19.1.1
South Carolina	Moped	N	Y	N	14	1491 W†	30	N	N	N†		N	S.C. Code § 56-5-165; § 56-1-1720
South Dakota	Moped	N	Y	N	14	50 cc	--	N	N	N†		N	S.D. Codified Laws § 32-3-1; § 32-20-1; § 32-5-1.2; § 32-26-21.1
Tennessee	Electric Bicycle**	Y	N	N	--	750 W	20	Y	N	N	Y	N	Tenn. Code § 55-8-172-177; § 55-*171(c)
Texas	Electric Bicycle	Y	N	N	--	--	20	N	N	N	Y	Y	Tex. Trans. Code §541.201 (24); §541.202 (4); §551.106
Utah	Electric Bicycle**	Y	N	N	14	750 W	20	Y	N	N	Y	N	Utah Code § 41-6a-102 (7-9, 16); § 41-6a-1115.5; § 41-6a-1505;

## Electric Bicycle Laws by State and Province

Area	Identity	Bicycle?	License?	Registration?	Age	Power	Speed	Pedals?	Federal?	Helmet?	Paths?	Sidewalks?	Law references
Vermont	Motor-Assisted Bicycle	Y	N	N	16	1000 W	20	N	N	N	Y	N	Vt. Stat. Ann. 23 § 4 (45(B)(i)); 23 § 1136
Virginia	Electric Power Assisted Bicycle	Y	N	N	14	1000 W	25	Y	N	N	Y	Y	Va. Code § 46.2-100; § 46.2-903; § 46.2-908.1; § 46.2-906.1
Washington	Electric Assisted Bicycle	Y	N	N	16	1000 W	20	Y	N	N	Y	N	Wash. Rev. Code § 46 4-169; § 46 61-710; § 46 4-320; § 46 37-530; § 46 16A-080; § 46 20-500
West Virginia	Moped	N	Y	Y	15	1491 W†	30	Y	N	Y		N	W. Va. Code § 17C-1-5a; § 17C-15-44
Wisconsin	Motor Bicycle	N	Y	N	--	750 W	20	Y	Y	N	Y*	Y*	Wis. Stat. § 340.01 (30); § 346.02 (4); § 346.79 (5); § 343.05(3)(c)
Wyoming	Moped	N	Y	N	15	1491 W†	30	Y	N	N‡	N	N	Wyo. Stat. § 31-5-102(xxi); § 10.32.160; § 31-5-115 (o); § 31-1-101
Alberta	Power Bicycle	Y	N	N	12	500 W	20	Y	Y	Y			Alta Reg 304/2002; Alta Reg 122/2009; RSA 2000, c T-6; Alta Reg 320/2002
British Columbia	Motor Assisted Cycle	Y	N	N	16	500 W	20	Y	Y	Y	Y	N*	BC Reg 151/2002; RSBC 1996, c 318, Part 1 & Part 3
Manitoba	Power-Assisted Bicycle	Y	N	N	14	500 W	20	Y	Y	Y		N	CCSM c H60
New Brunswick	Bicycle	Y	N	N	--					Y		Y	RSNB 1973, c M-17
Newfoundland	Bicycle	Y	N	N	--					N		N	RSNL 1990, c H-3
Northwest Territories	Bicycle	Y	N	N	--					N		N	RSNWT 1988, c M-16
Nova Scotia	Bicycle	Y	N	N	--	500 W	19	Y	Y	Y	Y	N	RSNS 1989, c 293
Nunavut	Bicycle	Y	N	N	--					N		N	RSNWT (Nu) 1988, c M-16
Ontario	Power-Assisted Bicycle	Y	N	N	16	500 W	20	Y	Y	Y	Y*	Y*	RSO 1990, c H.8; O Reg 369/09
Prince Edward Island	Motor Assisted Pedal Bicycle	N	Y	Y	16	50 cc	31	N	N	Y	Y	N	RSPEI 1988, c H-5; PEI Reg EC642/75
Quebec	Power-Assisted Bicycle	Y	N	N	18	500 W	20	Y	Y	Y	Y*	N	CQLR c C-24.2; CQLR c V-1.2, r 4.1; CQLR c P-9, r 25
	Electric Assist Bicycle;												
Saskatchewan	Power Cycle	Y	N	N	--	500 W	20	Y	Y	Y	Y*	Y*	SS 2004, c T-18.1; Motorcycle handbook
Yukon	Electric Power-Assisted Bicycle	Y	N	N	--	500 W	20	Y	Y	N		N*	RSY 2002, c 153

**Area:** Which state or province in the United States or Canada?

**Identity:** Under which definition in vehicle code does an electric bicycle fall?

**Bicycle:** Is it essentially classified and treated as a bicycle?

**License:** Is a driver's license required to operate an e-bike?

**Registration:** Is the e-bike required to be registered with the state/province?

**Age:** What is the minimum age of operation of an e-bike?

**Power:** What is the maximum power output permitted?

**Speed:** What is the maximum speed of operation permitted?

**Pedals:** Are fully functional pedals required for operation?

**Federal:** Is the state/provincial definition in line with the federal definition?

**Helmet:** Is a helmet required for operating an e-bike?

**Paths:** Are e-bikes permitted on shared-use paths and trails?

**Sidewalks:** Are e-bikes permitted on sidewalks?

**Law reference:** What is source of this information?

-- = Limit not specified under law

= Information unclear/inconsistent

"Bicycle" = allowed on bicycle paths and no license/registration required

† Horsepower expressed in watts equivalent; 1 hp = 745 watts

Different than maximum speed capability, though most areas see this as the same

‡ Age requirement; those under a certain age are required to wear a helmet

\* Restrictions apply (engine cannot be engaged, local ordinances prohibit use, etc.)

\* Restrictions apply (engine cannot be engaged, local ordinances prohibit use, etc.)

\*\* California has establish a 3 Class structure. Class 3 "speed pedal-assisted electric bicycle" has additional requirements than Class 1 & 2, such as speed, age restriction, helmet use, and path access. Additional states are implementing this class structure.